

Evangelizing EUGENICS:

A Memetic Appraisal of Eugenics Education in the Interwar-era,
and the Legacy of *Eugenics* and Race-Hygiene *Today and Tomorrow*

by

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Abstract

This dissertation explores the Interwar-era eugenics movements in America and Britain, focusing on efforts to educate insiders and professionals, but especially to evangelize novices. Two primary historical sources are examined in detail: the largely British *To-day and To-morrow* book series (1923-1931) published in London and New York, and the American Eugenics Society's (AES) official journal *Eugenics: A Journal of Race Betterment* (1928-1931). I rely primarily on memetic theory to understand and explain the waxing and waning of these Interwar eugenics movements in terms of a memetic evolutionary struggle between competing cultural paradigms and their diverse reactions to social forces. In addition, I explain how eugenics and race-hygiene memes can become dormant, but never fully extinguished, and briefly explore major precedents and antecedents of organized eugenics and scientific racism paradigms from constituent roots in the Protestant Reformation and Industrial Revolution, through to the rise of the Alt-Right or White Supremacy movements of the 21st Century.

This study introduces the aims and goals of the organized eugenics movements on both sides of the Atlantic and details their associated educational programs, as envisioned and actually delivered, for popular, formal and professional eugenics education in America, Britain and beyond.

Research Questions:

- a) What were the prominent strains or variations of eugenics and eugenics education, and what were the main alternative paradigms or opposing worldviews to eugenics? How did the memetic struggle for dominance among these rivals play-out during the historical period in question?
- b) How, and by whom were eugenics and eugenics education goals and programs formulated, implemented and delivered, and what sorts of rhetorical and memetic strategies were used to educate and persuade their target audiences?
- c) How have the memes of eugenics and race-hygiene persisted and mutated in the intervening years and why are they again ascendant or emerging from relative dormancy to 'go viral' again?

This is the first in-depth study of its kind to examine the two main primary sources listed above for their eugenic content. It is also the first to consider eugenics and its educational efforts through the theoretical lens of memetic theory, as formulated by its originator, evolutionary biologist and science popularizer Richard Dawkins, author of *The Selfish Gene* (1976), *The Extended Phenotype* (1982), and numerous books since. After Dawkins' first exposition of memes and memetics some forty years ago, the concept of memes and the science of memetics went through an initial period of slow

growth confined to a fairly narrow range of evolutionary science disciplines. This slow initial development phase was followed by a period of explosive growth upon the development and widespread popularization of the Internet and a host of digital communications technologies. Memetics is now a thriving field of study with numerous burgeoning applications, including the recent ‘weaponization’ of memes for political purposes, most notoriously by Russian ‘Troll Farms’ for the 2016 ‘Brexit’ campaign and the 2016 Presidential campaign of Donald J. Trump.

The substantive heart of this dissertation is an extended review and initial memetic analysis of the *To-day and To-morrow* series (in Chapter III) and the AES journal *Eugenics* (Chapter IV). Chapter III illustrates the full extent of the environmentalist-hereditarian spectrum and portrays the British class-based eugenics paradigm. Chapter IV explores the race-based Nordacist eugenics paradigm in America, and its eventual evolution into so-called ‘Reform Eugenics.’ These two primary sources representing the British and American eugenics movements are then compared and further analyzed in Chapter V, along with their historical precedents and successor movements. These historical iterations contain many common elements at the level of simple memes and meme-clusters, just as the discrete shards of glass in a Kaleidoscope remain constant, even as the larger patterns they form shift. This presentation incorporates extensive quotes, scanned excerpts, and photos with captions from these key sources. In addition, embedded memes are identified and expressed as so-called ‘meme-maps’ to reconstruct the two main paradigms and hereditarian worldview of eugenics, as well as their contemporary memetic rivals. Beyond this main document, there are extensive appendices (II-IV) covering various aspects of eugenics and its education efforts. There is also a brief glossary of memetics terms and concepts in Appendix I (pages 365-370), following the list of references.

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Chapter I: Eugenics Education as a Subject for Memetic Study

Introduction to this Study and its Scope of Research

When I selected eugenics and its educational efforts and programs as the topic for my doctoral research in the fall of 2010, it began as a conventional historical study of this now-discredited applied biological science and its extensions to Modernist society during the first-half of the 20th Century. The choice of this topic was inspired by a Science, Technology and Society course (STS 400), offered by the department of STS Studies within the Faculty of Arts at the University of Alberta in 2007, taken as part of my course work for an Education Diploma specializing in STS Studies. Although only half the course was directly related to eugenics (the applied hereditarian science of ‘race improvement’), it was my first in-depth exploration of the subject. This was despite having taken numerous previous biological science and history of science and technology courses. Eugenics had previously been a footnote or short blurb in the margins of biology texts or general history of science volumes, offered as a cautionary-tale for those who were not alive during its heyday. Little did I know that it would consume several years of my life and lead me to venture into many unforeseen angles and facets, with profound implications for today and tomorrow.

Over the intervening years, I have read hundreds of popular and scholarly books, journal and magazine articles on eugenics and have authored academic papers and reviews of my initial work in this subject (Kohlman, 2012, 2013, 2015, 2016). It was during this initial study into eugenics that I also became acquainted with the burgeoning field of memetics (the study of *memes*).¹ It was apparent to me that memetics was a natural fit as a theoretical lens to analyze not only hereditarian paradigms like eugenics, but also its diametrically-opposed ideological foil: the neo-Lamarckian applied science known as Lysenkoism, or Marxist-Michurinism (Kohlman, 2011; Soyfer, 2010).²

¹ Richard Dawkins coined the term in his *The Selfish Gene* (1976), and it will be defined and described in detail in the next chapter. In the meantime, Dawkins’ seminal metaphor of memes as the agents of “cultural inheritance” from *Unweaving the Rainbow* (1998, p. 304) will suffice for now:

“Memes can be good ideas, good tunes, good poems, as well as driveling mantras. Anything that spreads by imitation, as genes are spread by bodily reproduction or by viral infection, is a meme. The chief interest of them is that there is at least the theoretical possibility of a true Darwinian selection of memes to parallel the familiar selection of genes. Those memes that spread do so because they are good at spreading.”

² Lamarckianism (the inheritance of acquired characteristics), and specific examples like Lysenkoism, refers to the idea that environment alone determines physical characteristics, rejecting genetics as a causal agent or even a valid science. Lamarck’s classic example was the extended neck of giraffes resulting from having to stretch ever further to reach the upper-branches of trees. Lysenkoism was originally developed and promulgated during Stalin’s reign as absolute dictator of the Soviet Union, and was later modified by such ideological successors as Mao Zedong in 1950s Communist China and Pol Pot in the ‘killing fields’ of the Khmer Rouge in Cambodia in the 1970s.

Memetics can be applied to any historical or contemporary societal paradigm or worldview, but is especially apropos to the biological-cultural nexus between physical heredity and the cultural habits, systems of organization and religious or secular dogmas that operate within a society and passed from one generation another. As will be explained more fully in Chapter II, memetics was originally formulated by philosopher of science Richard Dawkins, as an analogy to biological heredity to buttress his ‘selfish gene’ theory (1976) of the Gradualist-school of neo-Darwinism.

As previously explained, this project started as a purely historical study, without regard to any obvious looming recapitulation of eugenics in the 21st Century, other than the usual debates over contraception, abortion, or sterilization raised by social-conservatives; or the barely-submerged racial animosities that perennially simmer in the *Zeitgeist*, and occasionally burst-forth like a cultural geyser. There were also undertones of eugenics in the “Newgenics” (Kevles, 1995, pp. 251-268) of the ‘biotech revolution’ that began in the 1980s, and which has generated new schemes for human enhancement, or for the elimination of genetic diseases. These new technologies have generated their own ongoing controversies and numerous science-fiction franchises have imagined the possibilities and pitfalls resulting from the ability to sequence, edit and modify DNA in embryos to produce so-called designer babies, as well as such novelties as human cloning (Kevles, 1995). Critics and bioethicists have incorporated references to eugenics in their critiques, while optimistic proponents have denounced such concerns as alarmist or reactionary (Agar, 2004).

Even as I began my post-Candidacy research in the Fall of 2013, it was becoming obvious to me that there was a renaissance of racial-religious animosity, spurred-on by the rise of ISIL and other militant Islamicist organizations during the ‘War on Terror’ and a growing ‘Whitelash’ (Ryan, 2016) to the presidency of Barack Obama, such as the ‘Birther’ conspiracy (Glum, 2017) in the United States that was popularized by Donald Trump.³ These trends were raised to global prominence by the events and aftermath of the ‘Arab-Spring’ movement across the mid-East and Northern Africa, and the consequent surge of refugees and asylum seekers that followed the death and destruction these insurrections catalyzed. This xenophobia and fear of non-White immigrants strongly echoes the prevailing *Nativist* and *Nordicist* sentiment that characterized the American eugenics movement of the 1910s-1930s.⁴

³ One of the recently published books on the recent revival of racial-religious memes for political profit in the 2016 Presidential campaign is the new book *Devil’s Bargain* (2017) by Bloomberg correspondent Joshua Green.

⁴ **Nativism** refers to the bias against new immigrants, especially those from a different culture or ethnicity to the dominant ethnic group(s) of a nation or region. **Nordicism** is a specific instance of Nativism, referring to the belief in the supremacy of the Nordic sub-race (aka Anglo-Saxons, Aryans), and in America, the exclusion of other White sub-races such as Jews, Poles, Slavs and Hispanics, by immigration restriction through quotas.

By the time I had completed the bulk of my primary research, the Canadian Federal election campaign of June-October 2015, the 2016 U.S. Presidential election and the Brexit Referendum in Britain had exposed a marked resurgence of the same exclusionary racial-religious memes that also dominated the American eugenics movement of the Interwar years. This recapitulation⁵ of old animosities baffled many adherents of the liberal, post-Modern worldview, who had believed these issues had been banished to the fringes; extirpated by decades of anti-racist education and a new tolerance of cultural-ethnic diversity across Western Europe and British North America.⁶

Numerous far-right populist political parties and ultraconservative-leaning media organizations like Steve Bannon's *Breitbart News* stoked fear and loathing in 'concerned citizens,' with immigration-restriction, crime and punishment issues, and explicitly racist memes often dominating the political rhetoric and campaign messaging (Green, 2017). These reinvigorated phobias and racial-religious hatreds that have re-emerged with a vengeance across Europe and British North America propelled Nationalist-Populist politicians to either an electoral victory or surprisingly narrow defeats that would have been unthinkable in recent decades.

On a related note, the Canadian Broadcasting Corporation (CBC) Website shut down its comments section for weeks during the spring-summer of 2016, in order to upgrade its hate-speech filters and hire additional moderators to remove the most offensive racial slurs (Mandel, 2016). The same phenomenon has been plaguing the comments sections of other mainstream news websites. Most of my observation has focused on the anonymous comments forum of Yahoo! Canada. An exposé of these extremist comments would fill hundreds of pages with the most racist, xenophobic hate-speech outside a Josef Goebbels speech or the neo-Nazi Website *The Stormer*.

From the Syrian refugee crisis in Europe, to Republicans competing to win their primary contests, to Conservative supporters in Canada seeking an overt Trump-style escalation of Stephen Harper's more subtle racial-religious-based wedge politics (CBC News, 2015), the rising trend of Nativism and even dire warnings of 'white genocide' is evident to any diligent observer willing to scroll through hundreds of pages of anonymous comments. Indeed, during the 2016 American election, the political influence of the Alt-Right (short for Alternative Right), a sanitized euphemism for White Nationalism or White Supremacy, became one of the trending stories covered by mainstream media and political observers (Green, 2017). The far-right fringes of the Internet, especially Alt-Right sites like *Breitbart* in the USA or *Rebel Media* in Canada, provided a platform and

⁵ I am using the term recapitulation here in its biological sense, as applied famously by Ernst Haeckel (1834-1919) and his theory of recapitulation (Ontogeny recapitulates phylogeny).

⁶ By British North America, I mean English Canada and the United States, excluding Mexico and French Canada.

social-forum for the growing community of modern-day Nativists and White-Judeo-Christian Supremacists, no longer limited just to ‘old-stock’ WASPs.⁷ Almost a century after the apex of the American Eugenics Movement in the 1920s, these reconstituted, modified strains of old Nativist-Nordicist tropes for immigration restriction and racial segregation re-emerged from a dormant state, into full public view to rock numerous liberal Western democracies to their core. In the case of the win by the Leave-side of the Brexit debate, and their far-right allies on the Continent, these renewed animosities threaten European solidarity and the Common Market (CBS News, 2016).

Back to the Future of Eugenics

While the rhetoric and worldviews expressed by these social-media comments is not the organized ‘scientific racism’ (Barkan, 1992) of the Nordicist-strain of American eugenics, they represent a crude recapitulation of the raw Nativist memes and race-based justifications that were popular in American eugenics before World War I and Interwar period. Today’s activists, like Steve Bannon, deride the ‘political correctness’ of polite identity politics; other than white, heterosexual, male identity politics (Green, 2017). Others lionize the overt racism of Southern segregation and American race-hygiene of the Jim Crow era, even while denying this is inherently racist or anything improper. What is also concerning is that in each nation where we see this resurgence of racial-religious hatred, there are unabashed champions for these views among right-wing parties, and not just from the very fringes of the political spectrum as we see in Europe. In Canada, the Reform-Alliance Conservatives often used ‘dog-whistle’ terms or couched their wedge-issue rhetoric in less overt terms, such as Stephen Harper’s reference to ‘old-stock Canadians’ (CBC News, 2015). But in the case of Donald Trump, especially during the Republican primary campaign, he dared to overtly broadcast his racial memes, and offered weak denials of solidarity with White Supremacist groups only when challenged. Not since the 1972 campaign of ‘Dixiecrat’ (Southern Democrat) George Wallace, has a major-party candidate been so explicitly racist and xenophobic in public speeches.

That these remarks are coming from the far-right end of the political spectrum is nothing new. Factions of the Republican Party and far-right constituencies in Canada (e.g., Reform-Alliance Party) have long been a fertile repository of bigotry and latter-day racial-hygiene memes. The remarkably strong support exhibited by Conservative supporters for the proposed Niqab-ban and Stalinesque ‘Barbaric Cultural Practices Tip-line’ in the 2015 Canadian Federal election are just two examples that figured prominently in post-election analyses by media observers (Bronskill, 2016).

⁷ WASP or ‘White Anglo-Saxon Protestant’ is a convenient substitute for the more anthropologically-correct term ‘Nordic’ from racial anthropology. The ‘White’ prefix is actually redundant since all Anglo-Saxons are white.

Although neither of these instances is exemplary of the classic Nordicism of the 1920s, it is fully consistent with the new iteration of White Supremacy, by such purveyors as David Duke or Ezra Levant. Another jarring recent development is the overt support among commenters on mainstream Internet forums for Vladimir Putin's repressive policies towards homosexuals, Muslims, and his extensive military campaign in Syria to prop-up the Assad regime, including extensive bombing and shelling of civilians. This strange amalgam of reconstituted tropes and rearranged political loyalties may cause some observers to deny any natural link to the Interwar eugenics movement, but this 'memetic drift' is typical of the kind of 'crossing-over' and recombination of memes from one viral outbreak to the next, in the same way that genes recombine to produce new combinations, or a pathogenic virus mutates from one epidemic to the next (Dawkins, 1982, 1986).

This recombination and morphing of memes is also characteristic of Dawkins' (1976) original conception of memetics; a result of the imperfect replication and 'messy' translation of memes from one person or ideological banner-carrier to the next. Memes are much more mutable and flexible than genes or chromosomes, requiring just a few generations or radically altered environmental conditions (e.g., war, economic boom, or depression) to change almost out of all recognition when viewed at the macroscopic level of whole societies. And yet, when conditions are right, the same memes become instantly recognizable when they reach a critical mass among followers or disciples. Before 9/11, few would have predicted such widespread support among large swathes of the public, for such obvious racial-religious memes as the Niqab-ban, or Trump's overt pronouncements on Mexicans, Muslims, and the need for walls and restrictions to keep *THEM* out.

So, how does this happen in democratic Western, post-Industrial, post-Modern, Western societies from Europe to Australia? How is it that a majority of Canadian Conservatives now believe that Islamic Fundamentalism is the greatest threat to the Western World (CBC News, 2011), much like the Blacks, Jews and Slavs in previous iterations of American or Nazi eugenic dogma? Decades of environmentalist-inspired *euthenics*,⁸ postmodern social-science theories and scholars have repeatedly 'debunked' racial superiority (Paul, 1998, 2012). Experts developed curricula, resources and programs for anti-racism education, LGBTQ-awareness programs, and instituted ethnic-religious tolerance policies and legislation. And yet these memetic throwbacks to the racism and intolerance of Nordicist eugenics or Nazi race-hygiene have gained renewed momentum, almost like an invasive species of weed or 'Frankenfish' (an aggressive intruder originally from China).

⁸ **Euthenics** refers to individual and societal improvement through social reforms, such as welfare; modification of the environment, such as social housing and public parks; as well as medical interventions, such as vaccinations or other public health measures. The Victorian-era in Britain was a formative time for euthenics as a memeplex, and FDRs 'New Deal' and creation of the Welfare State during the Great Depression would be the American equivalent.

I contend that the not entirely new theory of memetics (Dawkins, 1976, 1982) is an appropriate conceptual framework to analyze and understand Nordicist-Nativism, Nazi race-hygiene, or modern expressions of White Supremacy, as well as non-racial eugenics. To my knowledge, this study is the first in-depth exploration of eugenics and its education using memetics as the primary theoretical paradigm for analysis. Memetics is also flexible enough to be applied to environmental-reform ideologies like the euthenics of typical public-health campaigns, or the more radical neo-Lamarckian paradigms of Stalinist Lysenkoism, or even Maoist or Khmer Rouge-style derivatives.

To my knowledge, my approach to this study is a novel one, as is the focus on Nordicism as a particular characteristic of American eugenics (and which was later adopted and adapted by Nazi Germany); as opposed to the more typical recent focus on contraception or reproduction issues, such as compulsory sterilization (Paul, 1995, 1998). These complex racial aspects have received short-shrift in education circles (Paul, 2012; Selden, 1999). Given this preliminary background information and analysis, the purpose and research questions for this study are presented below:

Research Question and Purpose for Study

Purpose of Study: To explain eugenics and its education efforts in terms of memetic theory, and understand the waxing and waning of the Interwar eugenics movement in terms of a memetic struggle between competing paradigms and reactions to social and economic forces, as well as showing how eugenics or race-hygiene memes can become dormant, but never truly extinguished.

Research Question: What were the goals and programs, both envisioned and actually delivered, for formal, popular and professional eugenics education in Interwar America, Britain and beyond?

- a) What were the prominent strains or variations of eugenics (and eugenics education) and what were the alternative paradigms or opposing worldviews to eugenics? How did the memetic struggle for dominance among these rivals play-out during the historical period in question?
- b) How, and by whom were eugenics (and eugenics education) goals and programs formulated, implemented and delivered, and their associated educational)and what sorts of rhetorical and memetic strategies were used to reach and persuade their target audiences?

Finally, as spurred by the recent developments which are discussed on the following pages, an additional corollary was added to my research outcomes and focus of my dissertation:

- c) How have the memes of eugenics and race-hygiene persisted and mutated in the intervening years and why are they again ascendant or emerging from relative dormancy to 'go viral' again?

Below is a brief sketch of where my research questions will be addressed in this dissertation:

Research Question: What were the goals and programs, both envisioned and actually delivered, for formal, popular and professional eugenics education in Interwar America, Britain and beyond?

- a) What were the prominent strains or variations of eugenics (and eugenics education) and what were the alternative paradigms or opposing worldviews to eugenics? How did the memetic struggle for dominance among these rivals play-out during the historical period in question?
- b) How, and by whom were eugenics (and eugenics education) goals and programs formulated, implemented and delivered, and what sorts of rhetorical and memetic strategies were used to reach and persuade their target audiences?

These initial questions will be primarily discussed and detailed in Chapters III and IV, and then compared and analyzed again in Chapter V. My presentation of the *Today & Tomorrow* series in Chapter III and Appendix III will include exemplars and discussion of rival paradigm to eugenics, as well as intra-paradigm variations. Chapter IV and Appendix IV will drill down on even finer distinctions between different varieties or formulations of eugenics, and the various modes of evangelization or education for eugenics within the American eugenics movement and its official organ: *Eugenics: A Journal of Race Betterment*. The second part of this question will focus primarily on the American movement and its educational outreach programs, as detailed in *Eugenics*, covering the three main pedagogical emphases: Popular, Formal and Professional.

- c) How have the memes of eugenics and race-hygiene persisted and mutated in the intervening years and why are they again ascendant or emerging from relative dormancy to ‘go viral’ again?

This corollary question will be partially addressed in Chapters III (especially in the review of Haldane’s *Daedalus*) and IV (especially in the End of *Eugenics/People* section), as well as the like-numbered appendices. These latter-day echoes and mutations will then be synthesized, discussed and diagrammed in a later section of Chapter V. This section will provide a longer-term view of eugenics memes (and related themes), where the various predecessors and echoes of Interwar eugenics are presented in a broader temporal view that spans the time-period since the development of modern, empirical Western science in the early 1800s. It is these proto- and post-eugenics memplexes or paradigms that allow one to see that these memes and meme-clusters are persistent in the societal meme-pool, where they emerge periodically to ascendancy, much like the mutations and variations of a flu-virus (or computer virus) from one viral outbreak or epidemic to the next.

A Memetic Mea-Culpa of Personal Bias and Ideological Confessions

Rather than wear my heart on my rhetorical sleeve throughout this dissertation, I have attempted to limit injecting my own personal political and ideological standpoints to this introductory chapter and the tail end of the last chapter, to examine both some historical sequels to eugenics in the Interwar-period and the current situation as it relates to previous iterations of the eugenics and race-hygiene paradigms. In this section, I provide a brief vignette of my personal history and ideological-political standpoint. This may provide the reader some context as to my own memetic development and inherent ideological biases or worldview.

I was born in 1962, at the outset of what became the Cuban Missile Crisis, during the height of the Cold War. I grew up in the small town of Ponoka, Alberta, once infamous across Western Canada for its large mental hospital. This large hospital-complex underwent periodic name changes, from Ponoka Mental Hospital (PMH), which housed 1500 German prisoners of war during World War I, many of whom settled in the area after the Armistice and took up farming. The name was changed after World War II to Alberta Hospital Ponoka (AHP), for most of the remainder of the century, and more recently to a succession of politically-correct euphemisms that obscure its darker past. Despite growing up there and even working at AHP for a summer in the word-working and ceramics shops, which were used for occupational training and therapy for the residents, I knew almost nothing about the hospital's involvement in Alberta's history of eugenics (almost unique in Canada), nor did I know anything about eugenics.

Otherwise, Ponoka was a farming and market town serving the surrounding rural area and villages. The majority ethnic-religious backgrounds were German Protestants and Catholics (like my family), as well as large numbers of British, Irish and other descendants of European immigrants. The largest minority group was the Cree people from the nearby reservations (now First Nations) at what was then called Hobbema (now Maskwacis), where my father taught for a few years at the Erminskin Residential School, before moving to the public system in Ponoka as an elementary school phys-ed teacher. There was a smattering of ethnic Chinese, a few Jamaican immigrants, and a somewhat larger number of East Indians or Pakistanis, who were often medical professionals or staff at the hospitals. My mother was a nurse at the general hospital, and later a home care nurse.

During my undergraduate science education in the early 1980s, first at Red Deer College, I took an introductory genetics course and first heard about the eugenics movement, but it was only a brief blurb and there was no mention or discussion of any local involvement. After completing my Bachelor of Science degree at the University of Alberta (U of A), I enrolled in an after-degree

education program and began teaching high school science in Alberta, eventually settling in the Peace River area and teaching at a Catholic junior-senior high school there for almost twenty years.

Over most of that period, I would describe myself as a centrist Liberal in the mold of Jean Chretien, or even a Red Tory, given a moderate Conservative leader and platform, like former Prime Minister Joe Clark. I had a very favourable initial opinion of Ronald Reagan, until his Trickle-down economics and social-Conservatism made me withdraw my support for populist neo-Conservative strongmen like Reagan or Alberta Premier Ralph Klein, or the Corporate Conservatism of Steven Harper. By the time Barack Obama replaced the global adventurism and ideological fundamentalism of the Bush/Cheney dynasty, I had become a confirmed liberal and social-democrat for most issues.

It was not until my return to the U of A in the mid-2000s to first finish my B.Ed., and then an Education Diploma in STS Studies that I began to study eugenics in any depth, and was first exposed to the interdisciplinary fields of the History and Philosophy of Science and Technology (HIPST) and the kinds of research traditions that prepared me for a masters and now a Ph.D. in science education. My graduate course work included many offerings in anthropology, biology, history, sociology, and history and philosophy of science, from outside the Faculty of Education. This is where I first learned about Alberta's extensive involvement in medicalized eugenics, and the part played by Alberta Hospital Ponoka in compulsory sterilization (Grekul, 2008).⁹

I should confess here that I still have an aversion to many social science theories, especially those that rely heavily on explicitly environmentalist interpretations, or have implicit neo-Lamarckian tendencies, in much the same way a Richard Dawkins has expressed in some of his later books, like *Unweaving the Rainbow* (Dawkins, 1998). Like Dawkins, I would declare myself a moderate hereditarian most comfortable in the gradualist camp of evolutionary biology (Sterelny, 2001), but with a willingness to concede a substantial modifying role for environment upon human heredity and even its undisputed primacy in terms of social development or cultural evolution.

However, had I undertaken an analogous undergraduate education during the heyday of eugenics, I am quite sure I would have been quite receptive to the idea of eugenics as a scientific, progressive solution to organizing and guiding human civilization. Although, as a Catholic, I might not have been so amenable to 'negative eugenics' measures like the forced sterilization of delinquent youth or castaway children that occurred in Alberta and many American States, or the more racially

⁹ Jana Grekul, as a Sociology graduate student at the U of A authored the definitive dissertation of Alberta's eugenic sterilization program. It began under the United Farmers of Alberta in 1928, made compulsory and expanded during the long political dynasty of the populist Social Credit Party from the mid-1930s and peaked in the post-War years (Grekul, 2008). It persisted in gradually diminishing popularity to the dawn of the post-Modern 1970s, when the legislation was repealed by the incoming Progressive Conservatives under Peter Lougheed.

motivated Nordic-supremacy in American eugenics, or Aryan-superiority in Nazi Race-Hygiene. It was not until returning as a mature graduate student that I could really appreciate the inherent cultural and moral biases that underpinned the eugenics and the ‘scientific’ racism of old, and why these schemes were ultimately doomed to fail and incompatible with a democracy based on universal human rights and equality of persons under the law.

As a product of the Cold War era, I became a confirmed anti-Communist, and for many years anticipated an inevitable global conflict and nuclear-Armageddon. As an avid reader of world history, I learned about Soviet and Nazi pogroms, mass killings on the Eastern Front and the genocides of the Holodomor and the Holocaust. This included a doctoral-level history course on the ethnic cleansing in Ukraine and Eastern Europe during World War II. It is as a result of this cumulative study, including more recent examples of racial-religious ‘ethnic cleansing’ in the former Yugoslavia and the Czarist-style ethnic pogroms in Putin’s Russia and the annexed Crimea that alarms me most about the rise of the Alt-Right, neo-Nazis, neo-Klansmen and Ethnic-Nationalism across America, Europe, and even in Canada, and the new Orthodox Religious Fundamentalism and Ethnic Nationalism in Putin’s Russia.

Much of polite Western society fervently wants to believe that such events ‘can’t happen here’ and now. I am more inclined to agree with General Michael Hayden, former CIA and NSA director, and now a regular contributor on CNN, who has repeatedly warned in the wake of recent domestic and international turbulence, that civilization is but a thin veneer that is always susceptible to rapid decay and crumbling under the right combinations of social provocations and reckless leadership (Hayden, 2016). I have become less fearful of a nuclear exchange with Russia, China, or even North Korea, as compared to a prolonged descent into a renewed racial-religious Balkanization and civil-war, like that seen in Ukraine in the 1940s or Yugoslavia in the 1990s. Of course, these twin dystopian threats are not mutually exclusive and the latter may yet lead to the former.

As the televised events and hyper-partisan commentary following the neo-Nazi Rally and hate-filled violence (on many sides, many sides) in Charlottesville, Virginia in the summer of 2017 have revealed, outbursts of racial-religious violence *can* happen here in British North America or Western Europe, and it may get much worse before it gets better. With three more years left in Donald Trump’s tenure as President of the United States, and no end in sight to Vladimir Putin’s or Kim Jong Un’s autocratic regimes, one might even long nostalgically for the relative stability and brief détente of the Cold War in the late 1970s when I came of age.

Program for Original Research into the Eugenics Movement and its Education Efforts

Building on the previously described purpose and research questions, I now describe my research program for this thesis, and locate its context within the extant literature. The educational aspects of eugenics have been much neglected compared to the more sensational social programs such as compulsory sterilization and forced segregation of the ‘feeble-minded’ and other dysgenic undesirables. Although there have been dozens of scholarly books and hundreds of journal articles chronicling the eugenics movement in recent decades, only a handful have expressly studied the movement’s educational goals, leaders, practices, and institutions (Selden, 1999; Tucker, 2002). A few modern scholars have begun to explicitly examine the penetration of eugenics into educational theory, programs and technologies. But there is much more to be done in this area; as acknowledged by academics such as Steven Selden, a pioneer of critical study into ‘eugenical education’ (Selden, 1985, 1988, 1999). Professor Selden and Diane Paul (2012), have lamented the lack of research into this aspect of eugenics, and have called for additional study. Neither was specific about exactly what further research is needed. This study aims to continue their work, delving into two substantial primary literature sources whose function was, in whole or in part, to evangelize eugenics to the progressive-era masses.

The popularity and influence of eugenics has been largely forgotten today, even while its products, remnants and underlying assumptions have persisted. Hermeneutics, semiotics, nature of science and technology, and other major research traditions in my doctoral coursework have been useful in examining the biases, pseudo-scientific justifications, myths, and modes of persuasion employed in American-style eugenics as well as its detritus embedded in the neo-Conservative visions of curriculum and education in North America. (See Figure 1-1 on next page for the “Major Proposals” by the *American Eugenics Society (AES)*, and its educational implications). Even those proposals in Figure 1-1 that did not explicitly mention formal or popular education programs were common elements in civic-biology or social-hygiene courses, central elements in any dedicated eugenics course at the college or university level, as well as dominant themes in various popular education initiatives in the Interwar period, and even extending in places to the years immediately following World War II (Dorr, 2000).

As part of my pre-Candidacy study of eugenics and its penetration into educational programs and discourse, I had already conducted an intensive study of eugenical literature, from the first decade of the 20th Century, through to the post-World War II period.

This study included the published work of American and British eugenicists in journals, books, and high school and college-level textbooks, as well as more recent, critical commentaries by modern scholars (Kevles, 1985, 1995; Selden, 1999). The 1990s and the first decade of this century saw a virtual explosion of research into the history and legacy of the eugenics movement, and its relation to the ‘Newgenics’ in the age of modern biotechnologies. A handful of modern scholars have also begun to examine the explicit educational penetration of eugenics, as exemplified by Selden’s *Inheriting Shame: The Story of Eugenics and Racism in America* (1999).

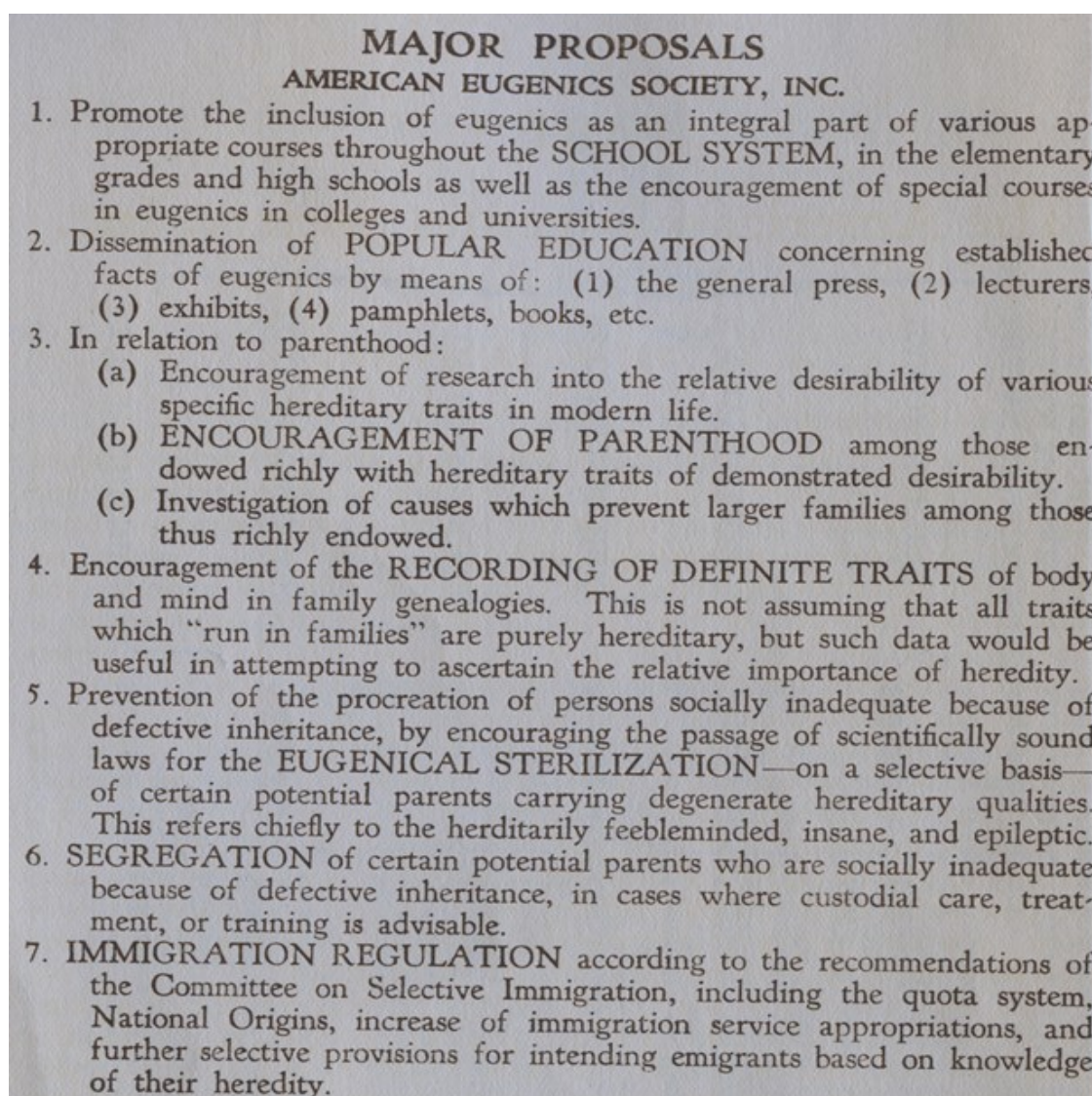


Figure 1-1: A portion of the ‘Ultimate Program’ of the *American Eugenics Society* (AES), from *Organized Eugenics* (Evans, 1931, p. x). This list outlines the major planks in the Society’s goals and aims. The first two planks are a tiny thumbnail sketch of the goals and strategies for formal and popular eugenics education. One of the goals of my research will be to enlarge this tiny thumbnail still-picture into a high-resolution panorama that will reveal new details and nuances.

I began my dissertation research by collecting historical documents from libraries and archives, as exemplified by Figure 1-2 below. A number of professional journals that published eugenics articles in the early decades of the previous century, such as the *American Journal of Heredity*, have now scanned their early volumes and made them available online. I began collecting these articles and excerpts that have relevance to my research, and they pointed to other primary documents. My coursework in numerous feeder disciplines of eugenics aided the research into the primary sources I uncovered, like the *To-day and To-morrow* series, and promoted connections with more recent secondary literature on the subject, like Spiro (2009). The University of Alberta's libraries and its partners have large holdings of period books and journals on eugenics, some of which I had already examined, and others that came to my attention as I proceeded with my post-candidacy research.

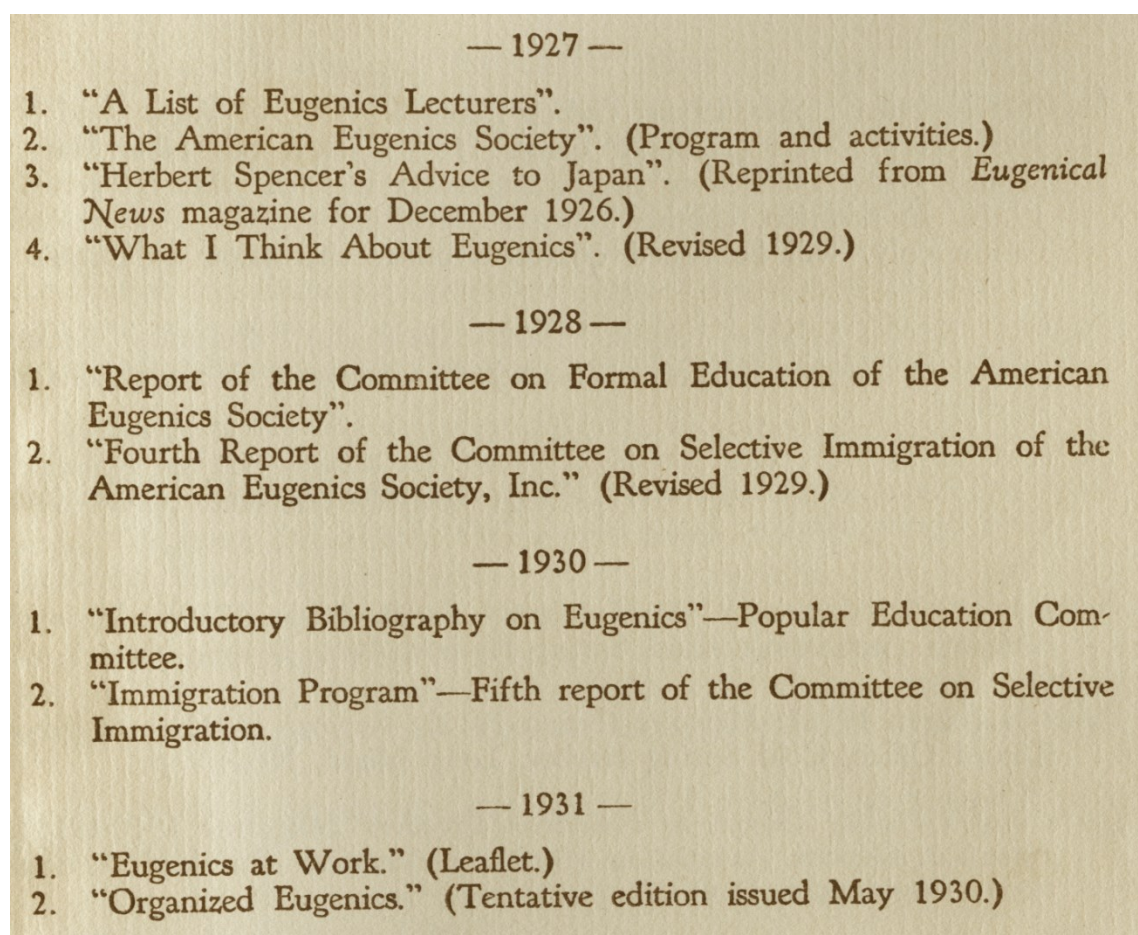


Figure 1-2: A sampling of the official publications produced by the *American Eugenics Society*, published from 1927 to 1931. From *Organized Eugenics* (Evans, 1931, p. 65). Notice how many of these publications, like the *Eugenics* journal, had an obvious educational mission.

One of the richest sources for primary research was the archival holdings of the *American Philosophical Society* (APS), located in Philadelphia. It holds the collection of Samuel G. Morton's menagerie of human skulls and original 19th Century research relating intelligence to cranial capacity measurements, which solidified Morton and his disciples as the leaders of the *American School of Anthropology* (Gould, 1981). It is also the modern repository for the remnants of the *Eugenics Record Office* (ERO - 1910-1939), at Cold Spring Harbor on Long Island, New York. The ERO was the *de facto* headquarters of the American eugenics movement, and a clearinghouse for eugenical research from around the world. The APS also had archival holdings for many of the academics that taught and publicly promoted eugenics and its education, as will be detailed in Chapter IV.

My study of eugenics education, in its popular, formal and professional contexts, is informed by my extensive primary research of two Interwar-era serial publications for the popular-professional market. It was in Philadelphia at the APS that I first encountered one of the two main primary sources for my research: *Eugenics: A Journal of Race Betterment* (1928-1931). While doing research for a term paper in one of my doctoral courses, I came across my other primary source: the *To-day and To-morrow* series of pocketbooks published in Britain and America from 1923-1931. This dissertation is framed as the exploration, refinement and dissemination of the various meme-clusters and memplexes (paradigms) contained in these two historical primary sources, which elucidated the science, pedagogy and social-political-professional-religious dogma of the eugenics movement and its related racial theories and conceptual paradigms. Chapter III examines several eugenically-active volumes of the *To-day and To-morrow* series (1923-31) of popular pocketbooks published in Britain and America. Chapter IV examines the popular-professional journal *Eugenics: A Journal of Race Betterment* (1928-1931), published by the *American Eugenics Society* (AES).

The 'memetically relevant' volumes of the *To-day and To-morrow* series reveal a broad spectrum of eugenic, euthenic and even neo-Lamarckian paradigms that would become, I contend, the guide for societal selection in the ideological ecosystems of America, Britain, Stalin's Russia, Nazi Germany, and later in Mao's Communist China and Pol Pot's Khmer Rouge regime in Cambodia (Adams, 1990; Dikotter, 2010, 2016; Pollock, 2006; Spiro, 2009). To my knowledge, this study is the first in-depth exploration and analysis of eugenics and its rival paradigms in the *Today and To-morrow* series.

By contrast, the AES's *Eugenics*, exposes the selectively curated and edited memes of an elitist, hereditarian worldview based on the innate superiority of the Nordic race (aka WASP) in America. The nearly ubiquitous occupation of the positions of power and privilege by WASPs in America was seen as the self-evident truth and validity of their cherished memes as stewards of the world's greatest democracy, now threatened by outsiders with strange memes and disparate worldviews.

In conjunction with the adherents of “Progressive Protestantism” (MacArthur, 1930), the Nordacists formed the highly influential racial-religious cadre of the American eugenics movement at its height, before the ravages of the Great Depression. This powerful social movement is explored in detail in Chapter IV. To my knowledge, this study is the first in-depth exploration of the AES Journal *Eugenics* and its educational functions for the American eugenics movement. The Nordacist eugenics paradigm, once secularized and mutated to conform to Hitler’s ‘Aryan’ mythos, provided the rhetorical and legal-political foundation for Nazi eugenics and race-hygiene, in a memetic-monoculture ecosystem where any competition or dissent was vigorously suppressed.

I use a combination of textual analysis, selected period images, contemporary critical reviews, historical overviews and comparative ‘meme-maps’ to provide the reader various opportunities to explore the applications of memetics to explain and understand not just eugenics; but any analogous cultural movement and its related educational initiatives, such as Lysenkoism in the USSR. Unlike today’s ‘noisy’ social-media environment where anyone can win 15-minutes of celebrity or infamy in the lottery of viral memes, these two extensive primary sources are curated, professionally edited, and lack today’s post-Modern ‘political-correctness’ to sanitize or obscure the message. I would speculate that many Alt-Right activists or today’s Ku Klux Klan disciples might value the frank discussion and overt rhetoric of these historic sources, even if they prefer the cruder terminology and less ‘scientific’ presentations of these same memes from today’s far-right media sources. Whether or not we admit the influence of powerful memes in our daily lives, our culture and its disparate subcultures, or not, they are operating on us in both subtle and dramatic ways.

The Late Bloom of Memetics and Selfish Memes

Dawkins (1982) defined a meme as a unit of cultural inheritance that can be acted upon by cultural selection and either be rejected, or adopted and expressed as a memetic phenotype in the form of a behavior, or course of action. A typical meme could be a phrase like *Make America Great Again*, a line from a song, poem or a Biblical passage; or any other discrete concept or representation that can be expressed in language, pictorially, or using another form of communication.

Combinations of related memes form meme-clusters, or even larger ‘memeplexes’ in Dawkins’ lexicon (refer to Figure 1-3 on next page). These clusters of co-adapted memes can be anything from a political party’s platform, or a cultural ‘ism’ like Nationalism, up to the conceptual level of a scientific paradigm, such as Lamarckianism or the Nordacist strain of eugenics dominant in America in the 1920s. At the highest conceptual level for an individual, one’s memeplexes blend to form their worldview; while at the societal level, the meme-pool includes all the memes among the populace.

The Hierarchy of Memetics: From Individual Memes up to the Societal Meme-pool

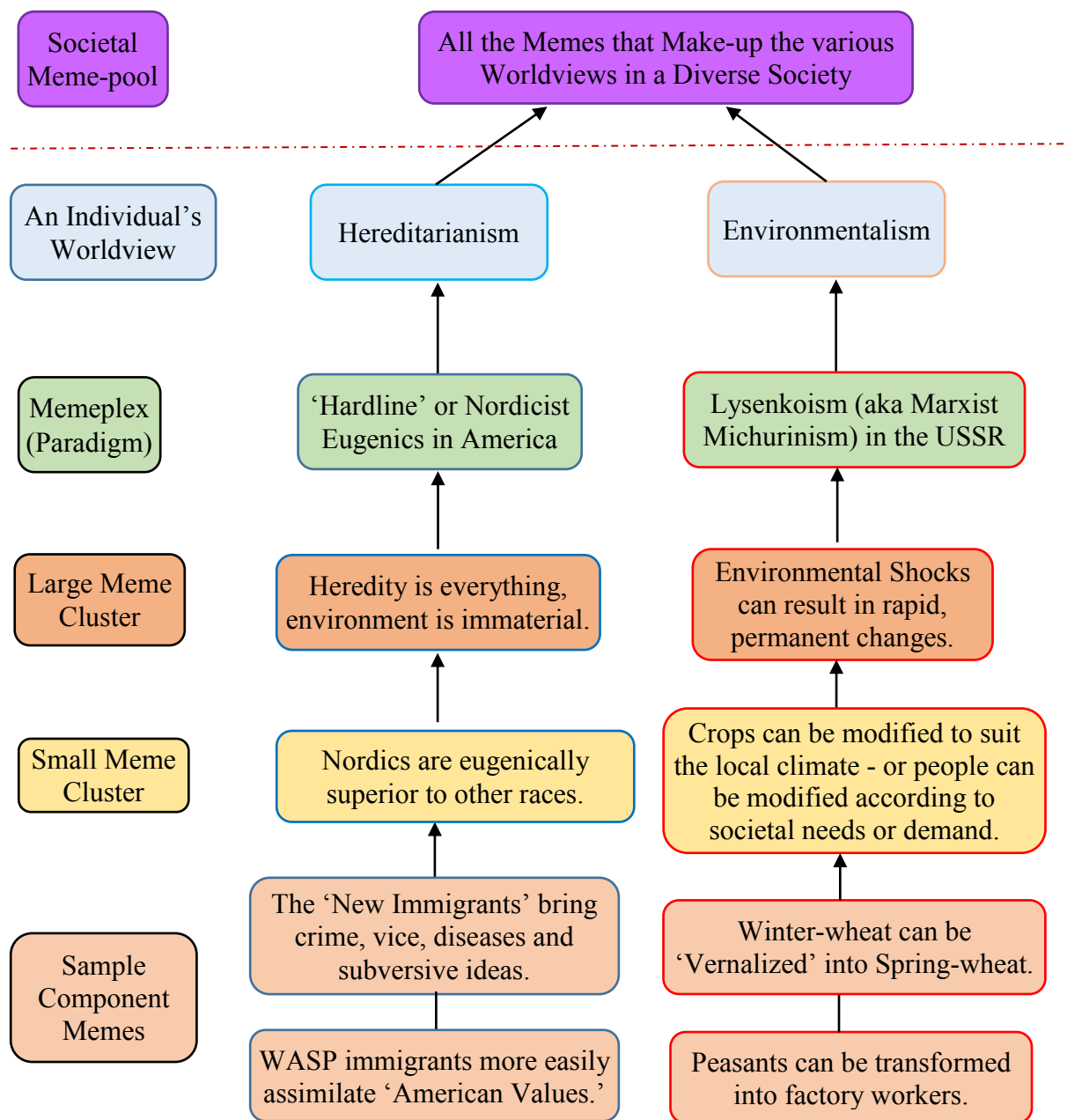


Figure 1-3: An illustration of the memetic hierarchy for two rival worldviews, showing the different levels from simple component memes, up to the meme-pool for a diverse society. Memes can have an independent existence in books, songs, movies, etc., up to the level of a memeplex. A large library containing information sources in numerous storage formats is roughly analogous to a meme-pool, while the collective literary output of a prolific polymath and meme-fountain like Sir Francis Galton would equate to a person's worldview. Chapter II will more fully explain memetics, including the hierarchy and operation of memes in human minds. Chapters III, IV and V will present the different hereditarian and environmentalist memeplexes and their component clusters and simple memes, including meme-maps for different variations of eugenics paradigms and its main memetic rivals.

The most effective independent memes tap into one's pre-existing memplexes or worldview, blending into a symbiotic network that reinforces the incorporation of sympathetic new memes into one's cultural paradigm or worldview, while simultaneously filtering or blocking hostile memes that conflict with one's ingrained paradigm(s) or worldview. An example of this synergy of memes is provided by Donald Trump's primary stump slogan in the 2016 Presidential campaign. While his slogan of *Make America Great Again* is simple enough on its face to be considered a single meme, it also evoked a whole series of higher-level memes: America has been declining due to non-White immigrants; the political class ignores the 'common man's' fears about this decline; only someone who is not part of the political establishment can fix the problem; and Donald Trump is *the* ultimate outsider and no-nonsense business mogul to restore America to its former greatness (Green, 2017). Meanwhile, hostile liberal or socialist memes, like fundamental racial-religious-cultural equality of all people, are banished like metaphorical Mongols at the Great Wall of this 'Trumpian' paradigm, due to efficient memetic filters that stop hostile memes at the border wall of the mind (Conte, 2000).

Memetics was an interdisciplinary 'bastard' of the same nascent disciplinary clusters that were prominent in the academic foundations of eugenics (the biological sciences and the burgeoning social-sciences). Dawkins' *Selfish Gene* (1976) was a product of the conceptual time period that bridged hereditarian progressive-Modernism and the environmentalist-dominated (and Neo-Lamarckian prone) ideologies of the post-Modern period. Like any bastard in classic or biblical literature, the theory of memes and the study of memetics were initially rejected by many academics on both sides of the conceptual divide. For 'serious' biologists and neuroscientists, memetics may be too abstract or environmentally biased and reeking of metaphysical social-science to be given a valid place alongside genes and neurons (Dawkins, 1982). For social-scientists inculcated into the prevailing environmentalist paradigm of post-Modernity, memes may be too metaphorically bound to their physical analogues (genes) and too philosophically tied to biological determinism to be taken seriously (Dawkins, 1998). For unrepentant Modernists, memetics is too 'out there' for easy conversion, while for dogmatic post-Modernists, memes are too reminiscent of a discredited worldview that embraced racial eugenics and strict hereditarianism in the first place (Paul, 2012).

Richard Dawkins is as much reviled by Fundamentalists for his atheist stance, as he was hailed by fellow scientists for his novel theories on evolutionary biology in *The Selfish Gene* (1976), *The Extended Phenotype* (1982) and in his more recent works, such as *Unweaving the Rainbow* (1998). Beyond the flurry of initial interest caused by Dawkins' revolutionary evolutionary theories with scientific popularizers or refiners of his ideas, serious study of memetics long remained a niche or specialty interest, limited to a fairly narrow range of academic fields like evolutionary biology and psychology.

In the end, it was the more recent explosion of Pop Culture, mediated through the global reach and ubiquitous popularity of the Internet, cable TV and personal computing devices that has made memes a post-post-Modern household word, especially among Millennials and social-media fans, pundits and experts. This cluster of novel digital technologies has allowed for the rapid and widespread dissemination of memes, old and new, to a growing audience. The convergence of digital technologies and expanding ‘content streams’ has propelled the meme concept to include a wide variety of pop-culture ephemera that ‘go-viral’ on YouTube or ‘trend’ on Twitter, and then, just as quickly recede into oblivion, or period nostalgia. But until very recently, memetics had not widely solidified as a recognized academic discipline outside its evolutionary biology/psychology base; except in those areas that deal with popular or ‘digital’ culture, and then usually in similar contexts.

I contend that the Western world is again witnessing the resurgence of recurring racial-religious memes, enunciated in the forceful rhetoric of their new champions, delivered in huge political rallies and broadcast in real-time for all to see by an integrated array of digital broadcast technologies.

Memes, like *Selfish Genes* (Dawkins, 1976), are amoral; they merely require a critical mass of fervent believers and a strong will to deploy them. Just as radical new technologies (e.g., gunpowder, contraception) eventually lose their ‘original sins’ or moral connotations once they are adopted by many users and become mainstream (Postman, 1992); once memes and the larger memeplexes they form take root in a population and reach a critical threshold, their ideological biases or faults become hidden or even invisible to their adherents (Distin, 2005). They find a sustainable niche and become embedded in the *Zeitgeist*; either to grow further and thrive, or alternately to wither and eventually become dormant, perhaps to bloom again, if and when conditions become favourable. But once-popular or widespread memes, meme clusters and memeplexes (including ‘scientifically discredited’ paradigms) rarely die, and even reviled memeplexes or paradigms (like Nazi Fascism or the racism of the Ku Klux Klan) can make remarkable comebacks in the right social environment.

Memes and their larger complexes, like selfish genes, simply require enough active hosts to be inculcated and spread beyond a critical threshold, thus allowing them to compete for a position as a dominant paradigm or integrated worldview among the next generation(s). Thomas Kuhn in the *Structure of Scientific Revolutions* (1962) postulated that for any scientist’s theory or paradigm to be accepted by posterity in a competitive environment, he or his disciples simply need to outlive and out-evangelize their rivals. This is captured in the simple truism ‘publish or perish.’ Promiscuous and ‘catchy’ ideas spread quickly to make more copies, whether religious or secular, popular or scientific, progressive or revisionist. Memes must spread and grow, or they will wither and decline.

Summary of this Chapter and a Look Ahead to the Rest of this Document

This chapter provided the initial philosophical setting and contextual background of this study. At the end of the introductory section, I explained my purpose for this research, presented my research questions and forecast their coverage throughout the rest of the dissertation. Next, I outlined my personal, educational, and professional background and discussed some of my consequent socio-cultural biases and worldview. I then outlined my original research program, from my educational introduction to eugenics and initial exploration of secondary sources, all the way through to selecting my ultimate primary sources (the *To-day & To-morrow* series and *Eugenics: A Journal of Race Betterment*) that form the bulk of this study. Lastly, I briefly introduced the concept of memes, and sketched the science of memetics as the primary theoretical model for understanding eugenics and its educational thrusts and programs.

In Chapter II, I will offer a much more detailed exploration and explanation of memetics and the transmission of memes, and why memetics is an exceptionally useful tool or paradigm for studying eugenics and its rival paradigms. The second part of Chapter II will provide the disciplinary scope and methodology used for this study.

Next, in Chapter III, I examine specially selected volumes of the *To-day and To-morrow* series for their eugenics memetic content and the role of these volumes in providing popular eugenics education for a progressive-era audience (additional selected volumes are reviewed in Appendix III). Chapter IV will detail and discuss the AES's official journal *Eugenics: A Journal of Race Betterment*, and its role in providing popular, formal and professional eugenics education for a progressive American audience. (Appendix IV contains additional thematic sections of the AES journal). In Chapter V my two primary sources will be compared and analyzed, along with relevant period commentary by Col. J. F. C. Fuller (*Atlantis*, 1925) and C. H. Bretherton (*Midas*, 1927), from the *To-day & To-morrow* series. The last section will discuss some current echoes of Interwar eugenics and present a more macroscopic view of eugenics as a 'scientific' paradigm and the hereditarian worldview as part of a longer historical timeline and more extensive memetic evolutionary tree.

Finally, Chapter VI will briefly document my memetic development and evolution as a scholar and wannabe academic, as a result of this long and extensive research program, first begun as part of a diploma program in simpler times (2007), and now culminating in this dissertation as a rapidly aging doctoral student in the Age of Trump (2015-?), warily witnessing the resurgence of meme-clusters and political programs/pogroms that were last popular in the Age of Fascism (1922-1945).

Chapter II: Introduction to Memetics as a Theoretical Lens, and the Disciplinary Scope and Methodology of this Study

This chapter more fully explains the burgeoning field of memetics from its pre-memetic historical precursor in Darwinism, and how it relates to the applied science and secular religion of Eugenics.¹⁰ This explanation follows a brief introduction setting the stage for eugenics as a derived product of neo-Darwinism, which codified the hereditarian worldview to exclude Lamarckian inheritance of acquired characters as a workable theory or mechanism for the transmission of biological traits. This ‘schism’ or bifurcation of Darwinism was a result of August Weismann’s seminal experiments to disprove this now ‘doomed rival’ (Dawkins, 1986), and instead favoured the genetic transmission of hereditary traits and their phenotypic effects. The scientific schism of Charles Darwin’s ‘dangerous idea’ was to play-out in Stalin’s “Science Wars” (Pollock, 2006) immediately before and after World War II, in one of the most interesting examples of memetic warfare in the 20th Century.¹¹

The bulk of Part 1 of this chapter details the basic concepts and historical development of the new field of memetics and the transmission of memes, as developed by Richard Dawkins and his subsequent memetic disciples, especially as applied to the study and understanding of the paradigm (or *memplex*) of eugenics and its educational endeavors during the Interwar period. It is my contention that the paradigm of eugenics was one of the first ‘scientific’ schemes for rationalizing society. One of the historical protagonists profiled in Chapter IV (then AES President C. C. Little) also claimed eugenics was the natural scientific and theoretical basis for educational pedagogy.

In Part 2, I first discuss the disciplinary scope of eugenics and how these fields of study have evolved since. Eugenics was one of the first attempts to create a truly interdisciplinary applied science from the disparate fields that served as its ‘roots’ (see Figure 2-5 on page 58 of this chapter for a pictorial representation and explanation). The last major section outlines the methodology used for this study of organized eugenics and eugenics education, as well as providing a fuller introduction to the two main primary sources researched for this study. In addition, a brief glossary of memetics terms is presented in Appendix I (pages 365-370), as a ready reference for specific examples or historical applications in Chapters III –V.

¹⁰ See Appendix II for a presentation of the history and historiography of Eugenics from its earliest incarnations, through to the height of the movement, and even its latter-day echoes in America after World War II.

¹¹ One could also compare this schism of Darwinism and its societal effects that influenced the Total Ideological War on the Eastern Front (in Russia and its satellites) in WW II; or to the schism between Catholic and Protestant sects of Christianity hundreds of years earlier. This earlier memetic cleavage led to the Thirty Years War that decimated the population of what had been the Holy Roman Empire, united under Catholicism and the ultimate authority of the Pope in Rome. The earlier Western (*aka* Great) Schism of Catholicism in 1378-1418 was also a milder predecessor.

Part 1: Memes as Analogy and Agent of Cultural Evolution

This section presents the basic concepts of memetics, especially as applied to the study and understanding of the paradigm (or *memplex*) of eugenics. First though, I present a brief comparison of memes and memetics as a culture-based analogue for biological heredity and evolution. I do this to highlight the parallels between memetics as an outgrowth of Darwinism and evolutionary biology, and also to eugenics as an earlier outgrowth of these same fields.

Francis Galton's (1904) new applied science and secular religion of eugenics was based on Darwin's revolutionary theory of evolution by natural selection, as modified by August Weismann and others (which spawned *neo-Darwinism*, or strict hereditarianism). Richard Dawkins' theory of memes and the burgeoning science of memetics is a latter-day analogue of this development, applied to cultural development and the evolution of ideas, concepts and their technological products.

In *Origin* (1859), Darwin used the dramatic effects of artificial selection by animal breeders over a brief timescale, such as his 'Pigeon fanciers' examples, as a familiar analogy for the evolution by natural selection over much longer spans of time. In subsequent decades, Galton (1869, 1874, 1883) modified that analogy to create a selectionist worldview based on the scientific breeding of humans to conserve or enhance valuable inherited traits (genius, athletic or artistic ability, etc.) in the practice of *Positive Eugenics*; while simultaneously repressing or eliminating undesired traits (susceptibility to vices, low intelligence, or physical infirmities, etc.) by the practice of *Negative Eugenics* (Galton, 1904). Galton and his early British disciples mainly concerned themselves with quantitative studies of *continuous* human traits like height, intelligence, or athletic ability. Galton and his primary protégé, Karl Pearson, also developed or modified powerful statistical techniques for measuring and ranking individuals in populations, such as biometrics, probability measures and correlation techniques.¹²

Once Gregor Mendel's foundational research in genetics was rediscovered by Western European scientists in 1900, Continental and American biologists began to focus more on qualitative empirical research of *discontinuous* traits, such as eye colour, hair texture, or earlobe shape (Kevles, 1985). The new science of eugenics grew out of the burgeoning 'pure' sciences of genetics and evolutionary biology; allied with applied disciplines like animal breeding, as well as the new applied social sciences, like human geography, social biology and certain medical specialties. This broad and deep disciplinary base or academic roots is best represented by the 'roots' of the 'Eugenics Tree,' itself an analogy of the Tree of Knowledge from Genesis (see Figure 2-5 on page 58 of this chapter, and the "Eugenics and the Church" section of Appendix IV for a deeper memetic analysis).

¹² Galton is a prime example of a 'meme fountain' (a prolific producer or synthesizer of memes; Blackmore, 1999)

In America, and in Germany with the specialty of race-hygiene in particular, race and racial characteristics played a much more prominent role in their domestic eugenic movements, grafting onto pre-existing memes of Nordic (aka WASP or Aryan) Superiority (Spiro, 2009). In the USA, the existing Nativist movement wished to preserve America as a ‘civilization preserve’ for the Nordic Race (see Appendix II and the section on Immigration and Legislation in Chapter IV). Eugenics memes infiltrated into academia and the public consciousness, while eugenics education penetrated into higher levels of formal education, as well as popular and professional education, and began to have an impact in political debates, lobbying efforts and legislation (Selden, 1999; Spiro, 2009).

The ‘Science of Eugenics’ was to be the foundation for directing human progress and achieving national greatness via competition with, or dominance over, one’s rivals and enemies (Galton, 1904). Folk-eugenics, such as the infanticide of disabled infants in Sparta or in Norse culture, mingled with new memes from modern science and technology to produce a hereditarian paradigm or worldview that encompassed not only physical virility and vitality, but moral codes for all aspects of individual lifespans and societal organization. Eugenics reached its memetic apex as a State Science and Party Dogma in the Third Reich, culminating in the SS *Lebensborn* Project and the Final Solution as the ultimate memetic phenotype expressions for positive and negative eugenics, respectively (Brandon & Lower, 2006). Eugenics was one of the most dramatic expressions of memes (at the memeplex level) in the modern world, approaching the highest memetic level of a worldview (*Weltanschauung*).

The recent re-emergence of long-simmering, but relatively dormant racial-religious issues to global prominence in political debates and social-media forums is abhorrent to many, and ignored or dismissed as aberrations by others. But the ubiquity and magnitude of this resurgence is a strong indication that the old memes referenced in Abraham Lincoln’s ‘darker angels of our nature’ speech still have not been purged from the meme-pool despite another 150-years of cultural-evolution, or ‘progress.’ An even longer historical view of the memes, meme-clusters, and memeplexes of tribal, racial-religious, and other forms of xenophobia or Nativism, shows a remarkable consistency of the raw component memes and even many meme clusters.¹³ Old and new memes and clusters combine to form new ideological memeplexes that have many different aliases, each having their moment in the sun, before dissembling under strong memetic pressure, going ‘underground’ for some time, and then blooming again under a different banner when conditions are more favourable.¹⁴

¹³ This longer view of historical memes and proto or post-eugenics paradigms will be discussed in Chapter V.

¹⁴ The late Stephen Jay Gould, in *The Mismeasure of Man* (1981, 1996) wrote about the periodic recurrence of “scientific racism” (from Louis Agassiz to *The Bell Curve*) as acting like “a fungal spore, a dinoflagellate cyst, or a tardigrade tun – always present in abundance, but in an inactive, dormant or resting stage, waiting to sprout, engorge, or awake when fluctuating external conditions terminate slumber” (Gould, 1996, p. 31).

Memetic Theory, Darwinism and Eugenics

Throughout recorded history, empires, nations, and all manner of fiefdoms have used popular *memes* to justify their existence, expansion and defense against enemies, rivals and internal revolutions.¹⁵ In this ongoing quest for hegemony, nothing has been so sacred (especially religion) that it has not been enlisted for the further glory of the state, of the dominant culture, and the rulers, movers and shakers that have drawn and redrawn global political maps. Powerful memeplexes, such as new political movements, philosophies, patterns of social organization, and even cultural values have competed against each other, carried forward by their human hosts in an evolutionary ‘battle-royale’ that formed much of the metaphorical justification for Charles Darwin’s *Origin of Species* (1859).

The birth of widespread public-education in the early 19th Century (starting in Prussia – after their defeat to Napoleon’s forces) was a powerful new tool in the spread of cultural memes, religious dogma and political ideals (Kohlman, 2013). Since the rise of the sciences in the Age of Empires, scientific and technological prowess has been seen as a necessity (war being the mother) to compete with enemies and rivals (Haldane, 1925; Kohlman, 2015). Advanced communication technologies have allowed ever faster and broader dissemination of memes to ever larger audiences, transcending national boundaries, racial or religious groups and worldviews.

Darwin (1859) asserted that members of the same species compete more ferociously amongst themselves, than with other species occupying other ecological niches.¹⁶ Borrowing ideas from his inspirational muse, Thomas Malthus (perhaps the prototypical *social-Darwinist*), Darwin also posited that populations will expand geometrically so long as they can acquire the food and resources they need to survive and reproduce. These ideas have been codified by economists, generals, princes and potentates – perhaps best exemplified by the concept of *laissez-faire* industrial capitalism. When resources become scarce, selection becomes more effective in selecting for the ‘fittest’ and selecting against less-fit rivals. Any philosophy, religion, or ideology that could not replicate itself in sufficient numbers to compete with its rival(s) was doomed to decline and/or extinction.

¹⁵ For a fascinating exploration of the power and dominance of memes over biological evolution in human history, see Howard Bloom’s *The Lucifer Principle: A Scientific Expedition into the Forces of History* (1995).

¹⁶ Trofim Lysenko, the leader of the Stalin-era movement known as *Marxist-Michurinism* (aka *Lysenkoism*), asserted the opposite, for which he was ridiculed by Western scientists. The rise and fall of Lysenkoism shadows Western Eugenics, but in the Soviet State it was based on a decidedly Lamarckian version of evolution, where environmental changes could shock living organisms (presumably including humans) into rapid physiological alterations, such as transforming normal cereal seed-stock into winter varieties, or creating new varieties of commercial crops that could thrive in Russia’s climate. For a complete expose of Lysenko and his ‘Lamarckian bio-eugenics’ crusade see Soyfer (1994), *Lysenko and the Tragedy of Soviet Science*. Kohlman (2011) offers a shorter overview.

Richard Dawkins (1972, 1992) used the concept of the *Selfish Gene* to explain altruistic behaviour, which had long been problematic for evolutionary biologists. Dawkins and other philosophers and evolutionary psychologists, such as Canadian socio-biologist E. O. Wilson, also adapted the gene concept and evolution by natural selection to the analogous concept of memes in human evolution and behavior. They argued that from the time of rise of the first great river-valley civilizations of antiquity (Nile, Tigris-Euphrates, Yellow Rivers) it is memes, not genes, which have functioned as the primary unit of selection in *human* evolution.¹⁷ It is ideas: like democracy, fascism, communism, capitalism, race, militarism, pacifism, etc., that are being selected for in our wars, famines and genocides, rather than our genotypes or family kinships (Bloom, 1995, p. 10, 36-59).

The academic world, including the sciences, is a microcosm and a breeding laboratory for these same memetic forces of evolution and competition. Professors, scholars and students regularly borrow, reproduce and modify memes and theoretical constructs to promote certain ideas, practices, and systems of organization and management. Memeplexes in the form of new ideas and theories compete with their rivals for dominance. Some gain professional traction, prosper and multiply their progeny and variations.¹⁸ Dominant memes are now broadcast, almost in real time, around the world. They often drive-out or marginalize indigenous knowledge and practices, much like the invasive species and pathogens carried by European colonists that played such havoc in foreign ecosystems, leading to the extinction of native species.

Eugenics has a history that goes back to antiquity, or at least to ancient Sparta (Kevles, 1995). Its basic memes have survived through periodic dormant periods, alternating with rapid ‘saltations’ when reactivated, and they continue to have important scientific, technological, and societal echoes and resonances (often under pseudonyms or in the form of ‘invisible technologies’)¹⁹ that still exert powerful influences to the present day (Gould, 1996). The historical impacts of eugenics continue to reverberate today, long after the alleged end of organized eugenics, if only for the technological and social artifacts and ideological remnants that survived its heyday as an accepted science. From their reconstituted origin in late 19th and early 20th Century Britain and mainland Europe, eugenics memes spread around the world in less than a decade. Like other powerful memes, eugenical memes rapidly mutated, and by combining with other pre-existing societal memes, the eugenics memeplex adapted to local conditions (Adams, 1990), under various aliases and environmental conditions.

¹⁷ The first incarnations of folk eugenics (e.g., ancient Sparta) and institutional caste systems (e.g., ancient Egypt and India) also date from the evolution of City States and the first large Empires. Coincidence or consequence?

¹⁸ Dawkins (1982, 110-112) argues that novel memes are more likely to be successful if they are compatible with accepted pre-existing ideas or paradigms. This was evident in both Progressive America and Nazi Germany.

¹⁹ See Postman (1992) for an explanation of the power of invisible technologies, such as IQ Tests in Eugenics.

The Slow Initial Growth and Late Bloom of Memetics and Selfish Memes

Like the biological replicators that memetic theory was derived from, acceptance of the notion of memes has mimicked a biological growth curve, not unlike cultured bacterial cells, or an algal bloom. From Dawkins' original elucidations, the concept grew slowly and cautiously. This is understandable, given the ideological gulf between hardline hereditarian views based on DNA, and the dominant environmentalist (euthenic) worldview that was fashionable in the counter-cultural backlash of the latter part of the 1960s, through to the neo-Conservative Restoration of the 1980s. Memetic theory was caught for years in an ideological no-man's-land, too soft for empirically-driven hereditarians, but too neo-Darwinian and deterministic for euthenic or neo-Lamarckian devotees of postmodernism. But with the explosive growth of the Internet, the popularity of memetic theory got a huge boost in the 1990s. It is in this new digital arena that the concept of memes has truly 'gone viral.' Richard Dawkins discussed the rapid growth and cultural appropriation (or misappropriation) of his meme concept in the 'Internet Age' in his *Unweaving the Rainbow* (1998):

Memes, unlike genes don't seem to have clubbed together to build large 'vehicles' – bodies – for their joint housing and survival. Memes rely on the vehicles built by genes (unless, as has been suggested, you count the Internet as a meme vehicle). But memes manipulate the behaviour of [humans] no less effectively for that. Memes, like genes, survive in the presence of certain other memes. A mind can become prepared, by the presence of certain memes, to be receptive to particular other memes. Just as a species' gene pool becomes a cooperative cartel of genes, so a group of minds – a 'culture,' a 'tradition,' – becomes a cooperative cartel of memes, a memplex as it has been called. (p. 306)

There is now a growing corpus of scholarly work on memetics, authored by both academics and eager dilettantes schooled in various interdisciplinary fields; often employing Dawkins' biological-to-cultural metaphors in their provocative titles. Prime examples include *Virus of the Mind: The New Science of the Meme* (Brodie, 1996); an edited collection, *Darvinizing Culture: The Status of Memetics as a Science* (Aunger, 2000); and *The Selfish Meme* (Distin, 2005); as well as popularized derivatives like *The Lucifer Principle* (Bloom, 1995). In addition to these conventional books, there is also a recent edited scholarly volume, *The Evolution of Culture, Volume IV* (Lundquist, 2010) that devotes an entire multi-chapter section to memetics as a field of study and methodology for studying cultural trends.

In addition to the more traditional use of memetics in such academic disciplines as evolutionary anthropology, evolutionary biology, evolutionary psychology, etc., memetics as a methodology (e.g., Gill, 2012), or a theoretical model (e.g., Dennett, 1990), has now spread beyond those fields that Dawkins' (1976, 1982) originally targeted, to other social-science and humanities arenas, not

necessarily agreeable with Dawkins' overt neo-Darwinism (see later in this chapter for much more detail on the theory's origin and development). Much of this disciplinary bleed-through came about through the popularity of the Internet (e.g. Segev, Nissenbaum, Stoler, & Shifman, 2015) or the kitschy cultural ephemera that it spawned, rather than from evolutionary biology or neo-Darwinian philosophy. The SAGE Handbook of Social Science Methodology (Outhwaite, Turner, eds., 2008) has an entry for memetics as a methodology as well as critiques of its limitations and applicability. *The Evolution of Culture* (Lindquist, 2010) expands this brief expose into a multi-chapter panorama that covers several aspects of memetics, including critiques and limits (Jeffreys in Chapter 10, Atran in Chapter 11 and Sterelny in Chapter 12).

Like any other analogy, there are limits to how far the metaphor of memes as 'genes of the mind' may be stretched, but I contend that using memetics to understand and explain eugenics and its ideological rivals (like euthenics and neo-Lamarckianism) is a natural fit. For arenas of human knowledge based on empirical or objective reality that do not depend on imitation or mimicry (like the development of Newton's Laws of Motion, for instance), other established theories of learning and human understanding (like Metacognition for example) may be more apropos. For instance, when applied to the subject of my Master's degree thesis on Cold War science education, I would not use memetics to describe the horizontal (intra-generational) and vertical (inter-generational) transmission of empirical or theoretical knowledge related to development of particle physics or radar technology, which became part of the Cold War physics curriculum embodied in the PSSC Physics program. I would, however, use memetics to explain the push for science and math education to compete in the ardent ideological and geopolitical struggle between NATO and Warsaw Pact nations, which was so keenly felt and publicized by the developers of American versus Soviet curriculum designers and science education authorities (Kohlman, 2008, Masters Thesis).

In addition, as mentioned previously, memetics position in the ideological No-Mans-Land between hereditarianism and environmentalism may be a real barrier for acceptance by those who have become factionalized or 'Balkanized' by the long-term ideological divide between these two prominent scientific worldviews. Memetics contains elements that would be ideologically objectionable or problematic for getting through the 'meme-filters' of hardened adherents of either pole: too 'soft' and abstract for empirically-driven hereditarians, but too deterministic for obligate environmentalists and downright dangerous to naïve or ideologically indoctrinated neo-Lamarckians. On the other hand, for today's students who have not been rigorously indoctrinated into either camp, and have grown-up with the Internet and its popular reference to memes, memetics may be a natural progression from what they have absorbed from popular Web culture.

Finally, as referred to above, memetics may suffer some blowback from serious academics and established educators due to its popularity and trivialization in pop-culture when applied to the Glitterati of the pulp media (e.g., the Kardashians and other Hollywood or Internet Celebrities). Many established academics (including members of my own supervisory committee) were unfamiliar with the concept of memes, either at all, or at least outside popular Internet culture as described. This is something I encountered with post-secondary students while teaching introductory curriculum and instruction courses at the University of Alberta during and after my residency period. While most of the students were familiar with some of the trivial pop-culture penetration of memes, they were completely unfamiliar with the scientific or scholarly study of memetics or its applications. This unfamiliarity and potential personal reaction against trivialization of their ‘serious’ research may well change over time as memetics cements itself in both scientific and scholarly circles, but for now the relative youth of memetics and pop-culture connotations of memes may be barriers to wide-scale acceptance and use of memetic theory or its applications outside evolutionary biology and digital culture studies where it has won ardent disciples and new converts. These limitations, ideological contraindications and potential misconceptions will be discussed further in later sections of this chapter and in Chapter V.

Since eugenics and memetics are both applied outgrowths of Darwinism, they should be entirely compatible and commensurable (Kuhn, 1962). Indeed, as I will postulate later in this chapter, eugenics could be argued as a presaging of applied memetics to grow a fringe ‘scientific’ paradigm into a mainstream cultural movement that would achieve an ideological hegemony of sorts in Western culture, overwhelming rivals and furthering the political agenda of eugenics organizations. Memetic theory offers great promise in understanding the eugenics movements of the Progressive-era and explaining the recurring phenomenon in its older or more recent popular expressions under other aliases. The continued fascination with eugenics memes in science fiction or other genres of popular culture is a further indication of a restoration of mutated memes from the modern genesis of eugenics in Britain and America at the turn of the 20th Century. This periodic recapitulation of the memes and larger memeplex of eugenics will be explored further in Chapter V.

My study follows Dawkins’ development of the meme concept, in an arena that is well suited to its use, even if the specific topic was perhaps outside Dawkins’ field of vision as a likely application. The following sections of this chapter describe Dawkins’ expositions of memetics, from its earliest origins in *The Selfish Gene* (1976) and *The Extended Phenotype* (1982), through to the popular breakout of memetics in the mid-late 1990s by Dawkins and his memetic disciples.

A Brief History of and Primer for Memetics, as Revealed by its Creator

Memetics was first revealed by Richard Dawkins in *The Selfish Gene* (1976). It went through a slow expansion in the 1980s and early 1990s (Dawkins, 1982, 1986; Dennett 1990, 1995), and later grew to a swelling tide after the advent of the Internet and its rapid growth in the new Millennium (Aunger, Blackmore, Brodie, Distin, etc. in the late 1990s and early 2000s). Memetics began its conceptual life as a rhetorical analogy for biological evolution in the cultural domain, and is now applied to cultural evolution from the earliest antiquity to the present and beyond (Lindquist, 2010). It is worth noting that the young science of memetics is now about the same age as eugenics was in the period encompassed by my primary sources (the *To-day and To-morrow* series, 1923-1931, and the American Eugenics Society's journal *Eugenics*, 1928-1931). Even with the rapid dissemination of research today, many people, including established academics outside the field, are today as uninformed about memetics, as their predecessors were about eugenics a century ago, and probably have as many alternate ideas or misconceptions (meme-alleles or meme mutations) as the uninitiated had about eugenics back then. But while eugenicists and eugenics educators were limited to printed matter, public lectures and exhibitions, or formal courses in traditional educational institutions; 'memeticists' have all the digital communications technologies of the 21st Century at their disposal.²⁰

But the analogy of memetics to neo-Darwinism has its limits, just as using simple-Mendelian genetics as the theoretical foundation for eugenics led to misconceptions or conceptual errors. In its current state, memetics is far from being a precise predictive science capable of definitive predictions and prescriptions. Unlike post-Human Genome Project genetics, memes are elusive to determinate study. There is little prospect in the short-term for a complete mapping of the human meme-pool or elucidation of a precise biochemical mechanism for the origin, replication, translation and phenotypic expression of memes; or explaining the mutation, spread and recombination of complex memes in the short timespans of cultural changes. The power of memetics lies in its scope, range and future potential for a whole host of human sciences and cultural arenas. I assert that it has as much potential explanatory utility for eugenics and its antecedents and descendants as any social theory, and more than many that have been applied in the past. It is also quite novel when applied to the study of my primary sources. It is my mission to convince the reader that memetics deserves consideration as a valid explanatory theoretical framework for the organized eugenics and race-hygiene of the Interwar-era and the cruder (non-scientific) far-right Populist Nationalism of today.

²⁰ A few radio broadcasts marked the height of technology for the dissemination of eugenic memes in the 1920s.

The Dawn of Memes in *The Selfish Gene*

As previously introduced, Dawkins' *The Selfish Gene* (1976) dedicated one chapter to the concept of memes as a new form of 'replicator' in humans that supplemented, and even supplanted to some extent, the genes that direct biological evolution. Thus, with the advent of highly-organized human civilizations, memes became the primary replicators that influenced cultural evolution. Almost opposite to Darwin's *Origin* (1859), in which human progress and artificial selection formed the metaphorical analogue for natural selection, evolution in lower organisms and animals became the basic analogy or template for Dawkins to extend to human evolution. Dawkins spent most of *Selfish Gene* describing inheritance and evolutionary processes in simple organisms and later in animals, including social insects, herd animals and higher primates, and he only concentrated on human evolution in Chapter 11: entitled "Memes, the New Replicators" (p. 189).

Here, he first introduced the concept of *memes*, and postulated that they are a new form of replicator that in post-historical humans have supplanted genes and biological phenotypes as the primary factor that selection (artificial, for the most part in the modern period) acts upon. Dawkins relates the origin of his term as arising from imitation as a means of cultural transmission:

We need a name for the new replicator, a noun that conveys the idea of a unit of cultural transmission, or a unit of *imitation*. 'Mimeme' comes from a suitable Greek root, but I wanted a monosyllabic word that sounds a bit like 'gene'. I hope my classicist friends will forgive me if I abbreviate mimeme to *meme*. If it is any consolation, it could alternatively be thought of as being related to 'memory', or to the French word *même*. It should be pronounced to rhyme with 'cream'. Examples of memes are tunes, ideas, catchphrases, clothes fashions, ways of making pots or building arches. (p. 192)

Dawkins noted several instances of memes and their evolution in animals, including songs in certain birds, but these, along with more familiar instances in primate research "are just interesting oddities" (p. 190). He reserves memetic evolution as a driving force for humans, but it really only became dominant when small bands or tribes of hunter-gatherers gave way to larger groups in permanent settlements, after the first true towns, cities and eventually regional or imperial entities arose. This demographic shift was driven by memetic transmission and evolution, as it happened much too quickly for biological evolution to explain:

Cultural transmission [of memes] is analogous to genetic transmission in that, although basically conservative, it can give rise to a form of evolution. Geoffrey Chaucer could not hold a conversation with a modern Englishman, even though they are separated by an unbroken chain of some twenty generation of Englishmen, each of whom could speak to his immediate neighbors in the chain as a son could speak to his father. Language seems to evolve by non-genetic means, and at a rate which is orders of magnitude faster than genetic evolution. (p. 189)

This rapid cultural transformation is particularly evident in our time, when peasant or agrarian civilizations undergo rapid ‘modernization’ including forced industrialization and militarization, such as in Communist China during the initial Maoist Revolution in the 1930s and 40s, the Great Leap Forward of 1958-1961, and the even more infamous Cultural Revolution of the late 1960s (Dikotter, 2010, 2016). In all these instances, the neo-Lamarckian memes prevalent in Marxist-Stalinist-Maoist ideology actually reinforced the changes produced by these radical memes, even though this was to prove to be detrimental to the survival of many individuals among the populations involved.

In the Western world, the Nordacist strain of American racial eugenics, and then the Nazi strain of Aryanism, attempted to fuse biological and memetic evolution to select a narrow range of human types and a sanctioned worldview in an overlapping and mutually synergistic neo-Darwinian process of artificial selection and directed cultural evolution. The utility of memetics is that it can explain cultural changes in both these diametrically opposed alternatives of biological evolution, in a way that leaves both Lysenkoism and hardline hereditarianism (the so-called ‘Fascist-Weismannism-Mendelism’ decried by Lysenko and his disciples; Kohlman, 2012) of eugenics severely wanting. Dawkins also recognized the parallel between his meme hypothesis and various established theories of cultural evolution; including those for scientific progress, as formulated by Karl Popper, Thomas Kuhn and others in anthropology, genetics, and ethology (p. 190).

But Dawkins also criticized his contemporaries in evolutionary biology and its related socio-biology fields for slavishly trying to link cultural changes or adaptations to changes at the genetic level, who sought to explain rapid civilizational trends in terms of “biological advantages” (p. 191). He largely rejected the genetically-based “kin selection” and “group-selection” theories that had been previously deployed to explain the wide range of modern human cultures, “from the utter selfishness of the Ik of Uganda... to the gentle altruism of Margaret Mead’s Arapesh” (p. 191). He further argued that as an “enthusiastic Darwinian... Darwinism is too big a theory to be confined to the narrow context of the gene. The gene will enter my thesis [for cultural evolution in modern humans] as an analogy, nothing more” (p. 191).

After a brief summary of his main theory of replicators in general, Dawkins switched back to the “new replicators” (p. 193) of human evolution, linked at the level of human brains, and provided the memetic version of the rhetorical case for the “three essential qualities” (p. 194) of replicators:

The old gene-selected evolution, by making brains, provided the soup in which the first memes arose. Once self-copying memes had arisen, their own, much faster kind of evolution took off. We biologists have assimilated the idea of genetic evolution so deeply that we tend to forget that it is only one of many possible kinds of evolution. (p. 194)

Imitation, in the broad sense, is how memes can replicate. But just as not all genes that can replicate do so successfully, so some memes are more successful in the meme-pool than others. This is the analogue of natural selection...[The] qualities that make for high survival value among memes... in general must be the same as those [previously] discussed for [other] replicators: longevity, fecundity, and copying-fidelity. (p. 194)

Dawkins (1976) outlined the survival value of each of these three essential qualities (longevity, fecundity, and copying-fidelity) in the context of memes. Memes have definite contrasts with genes, due to their imprecise mechanism of replication (imitation in its broad sense), versus the relative biochemical fidelity of gene replication. He also emphasized that memes, unlike genes, can be preserved in our cultural artifacts: books and scholarly journals, other paper or electronic records, recorded songs or songbooks, or preserved fashions or clothing. This record is independent of their existence in human minds, and in most cases these storage media are more permanent and faithful copies than their storage in or transmission between minds. Like gene copies in individual bodies, the fecundity of meme copies is more important than the longevity of particular copies in individual brains, and Dawkins outlines how this works in particular cases that have been studied extensively:

If the meme is a scientific idea, its spread will depend on how acceptable it is to the population of individual scientists; a rough measure of its survival value could be obtained by counting the number of times it is referred to in successive years in scientific journals. If it is a popular tune, its spread through the meme pool may be gauged by the number of people heard whistling it in the streets... Some memes, like some genes, achieve brilliant short-term success in spreading rapidly, but do not last long in the meme pool. Others, such as the Jewish religious laws, may continue to propagate themselves for thousands of years, usually because of the great potential permanence of written records. (p. 194)

He devoted most of this section to deal with the shaky situation of copying-fidelity. In the case of verbal transmission of memes (normal speech, prose or songs), as evidenced by the children's game of 'telephone' (or its cultural ancestor 'whispers'), verbal-auditory meme transmission is notoriously unfaithful and liable to copying errors at a rate that would ruin biological heredity and lead to extinction events. This potential challenge to meme longevity is also a strength as a rapid evolutionary mechanism. The high mutation rate of meme transmission by spoken language or crude imitation allows for rapid modification and evolution of memes. Where copying-fidelity really mattered, for instance in Jewish religious customs, laws or other dogmatic matters, it set a premium on clarity of language, literacy and scholarship. This acted to selectively preserve those memes and encourage their permanent storage as artistic, hieroglyphic or textual representations; or today as published literature and recorded speech or music, photographs, television broadcasts and movies.

In another rhetorical allegory from Darwin's *Origin*, Dawkins (1976) used the rapid evolution of *Darwinism* as a memeplex, from its 19th Century forebears through to its modern interpretations, to argue for the general efficacy of meme transmission, even with its sometimes low-fidelity replication and indeterminate particulate nature. Despite the remarkable changes in the manifold underlying component memes of the current concept of Darwinism, Dawkins insists that "there is something, some essence of Darwinism, which is present in the head of every individual who understands the theory" and he defines the Darwinism meme as "the essential basis of the idea that is held in common by all brains that understand the theory" (p. 196).

But here, I contend, Dawkins missed a key opportunity to extend the analogy of genetic alleles to memes. He asserted that only the common bits of Darwinism appearing in multiple brain copies are part of the same meme; insisting that the "*differences* in the ways that people represent the theory are then, by definition, not part of the meme" (p. 196). It is my contention that neo-Darwinism (with Weismann's prohibition upon inheritance of acquired characteristics) and the neo-Lamarckism of Trofim Lysenko are rival alleles in the meme-pool of early Darwinian ideas – sharing a common ancestor through Darwin's *Origin*, but with considerable ideological speciation since.²¹ Eventually, the two rival forms of Darwinism became the basis for Nordicist or Nazi eugenics on one hand, and the crude Lamarckianism promulgated by Lysenko, Stalin and Mao, *et al*, on the other.²² This led to multiple struggles for survival (literal, literary and memetic), including the Nazi-Soviet War, which made even *Stalin's Science Wars* (Pollock, 2006) seem like a friendly game of chess in the park. The same case could be made for Western eugenics in its various forms as being alternate memetic alleles of Soviet or Maoist forms of neo-Lamarckian euthenics to 'shock' the populace into assimilating radical new organizational systems (collective farms, forced industrialization or agrarian revolutions).

²¹ Dawkins does not mention Darwin's oft-used examples of neo-Lamarckianism here, despite the utility it would have as a highly relevant and convincing segue to explaining memetic alleles later (something he struggled with in *The Selfish Gene*, and only clarified in later works). The memetic battle between hereditarian neo-Darwinism and Marxist-Michurinist neo-Lamarckian Darwinism at the center of Stalin's 'Soviet Science Wars' of the late 1930s and 1940s (Pollock, 2006; Kohlman, 2012), could be viewed as an evolutionary struggle between the differentiated, opposing alleles of the original Darwinism meme, wherein they became rival memetic species.

²² Dawkins denies Lamarckism in any of its historical forms as being true Darwinism, or any meaningful memetic linkage in *The Blind Watchmaker* (1986), under the chapter heading of "Doomed Rivals" (of neo-Darwinism). *The Selfish Meme* (Distin, 2005) explains this aversion in terms of defensive 'meme filters' that block competing or rival memes from gaining purchase, an idea Dawkins used himself in terms of explaining the intense aversion among religious disciples to the disparate memes of rival religions, and hence the difficulty of conversion. This is also a potential explanation for the intense antipathy between Dawkins or other 'celebrity atheists' and ardent religious adherents, especially 'scientific creationists.' In the field of memes, rivalry and competition is often much more 'selfish,' in terms of the lengths the carriers of rival memes are willing to sacrifice their energy, health and prosperity to dominate or defeat their oppositional alleles. This epic struggle throughout history is the wheelhouse of Bloom's *The Lucifer Principle* (1995), offered in convenient meme-sized bites rather than big memeplex meals.

While there may be many individual component memes in the memplex of Darwinism, if “almost everybody” believes in the same component parts, “if the memes are closely ‘linked’ to use the genetic term – then it is convenient to lump them together into one meme” (p. 196). This closely parallels the fuzzy concept of ‘unit factors’ (individual or groups of linked genes of uncertain size) employed in early genetics texts and the eugenics lore of the Progressive-era that was criticized by H.S. Jennings in *Prometheus* (1925), as explored in Chapter III. I will follow Dawkins’ lead in this aspect, using the term “memes” to include related clusters of memes, when it is not critical to differentiate isolated component memes from clusters.

Even though we may not yet be able to precisely ‘sequence’ complex memes to determine their exact ‘size’ or delineate their individual components as we can now do with genes, chromosomes and genomes in the 21st Century, the conceptual power of memetics does not fundamentally rely on the microstructural precision of current biotechnology for its explanatory utility. While that degree of technical precision might be more convincing to hard-core empiricists or biological-determinists, that sort of determinism may be a memetic barrier to obligate environmentalists or neo-Lamarckians who might otherwise find memetic-based cultural evolution compatible with their own worldview. Alternatively, for some dogmatic Fundamentalists, the pejorative memetic linkage between Dawkins’ notion of memes to ‘Darwinism’ and to ‘godless atheism’ could send them running to their Bibles for emotional comfort. In other words, individual reactions to memetics may vary considerably.

Dawkins then returned to his central thesis, to further pursue the analogy of his selfish genes to the evolutionary arena of memes, in a passage worth quoting for its prophetic power, in a way that the authors of *To-day and To-morrow* often failed to replicate in their futuristic prognostications:

Throughout this book, I have emphasized that we must not think of genes as conscious, purposeful agents. Blind natural selection, however, makes them behave rather as if they were purposeful, and it has been convenient, as a shorthand, to refer to genes in the language of purpose. Just as we have found it convenient to think of genes as active agents, working purposefully for their own survival, perhaps it might be convenient to think of memes in the same way. In both cases the idea of purpose is only a metaphor... We have even used words like ‘selfish’ and ‘ruthless’ of genes, knowing full well it is only a figure of speech. Can we, in exactly in the same spirit, look for selfish or ruthless memes?” (p. 196)²³

²³ In fact, some 30-years later, British philosopher Kate Distin published *The Selfish Meme* (2005), based on her doctoral dissertation. It is a superb review of Dawkins as well as his disciples and critics in the burgeoning field of memetics, as listed in the introductory section of this chapter. Although I would rate Bloom’s *Lucifer Principle* (1995) as being more accessible to the layman with its application to ‘real-world’ situations and historical events; *The Selfish Meme* is the best scholarly overview of memetics. Distin far exceeds the logical clarity and philosophical sophistication of myself, or Howard Bloom, and even Dawkins in many cases, though Dawkins is better schooled in biology and the processes of genetic inheritance. In Dawkins’ case, memetics was always a side-dish in his popular books and never fully explicated in any one work, but scattered in bits and pieces like co-dependent genes on different chromosomes. Distin’s *The Selfish Meme* did for cultural replicators and evolution what Dawkins’ *Selfish Gene* did for biological replicators and evolution.

This circular appeal to the biological anchor of the gene-meme analogy served as a convenient launch-point to delve into memetic competition and how it maps onto and differs from competition between rival genes or any arising mutations to form an evolutionary stable gene-pool, or produces a constant genetic drift with no long-term equilibrium. Dawkins (1976) noted the biggest problem for the ‘natural science’ of memetics. Whereas “each gene is competing particularly with its own alleles – rivals for the same chromosomal slot. Memes seem to have nothing equivalent to chromosomes, and nothing equivalent to alleles” (p. 196). He later modified this early characterization, based on the work of others (see particularly Distin, 2005), and also perhaps upon his own further thinking.

Dawkins went on to describe examples of memetic competition in both humans (due to limited brain size and attention span), and in antiquated 1970s computer systems (with limited memory and scarce ‘mainframe’ access-time). He discussed how memes, like genes, can form co-adapted complexes, like ‘true’ Darwinism; which is a huge memeplex of co-evolved memes that fit together to produce a paradigm, or even a worldview. Dawkins discussed “ghastly torments” (p. 197), such as the “threat of hellfire” taught to children, as examples of self-perpetuating adaptations that increase the survival value of the parent meme (Christianity) by evolving self-protective defenses that outlast the unlucky, but hallowed, hosts (or “vehicles” in Dawkins terminology) that carry them unto death, as martyrs. The ‘immortalization’ of these memes among the faithful, regardless of the fate of their hosts, thereby added to their longevity in the meme-pool. Meanwhile, eliminating the carriers of rival memes has always been a popular form of *negative memetics*, long before its elucidation by Dawkins.

This selfishness of memes and the evolution of co-adapted self-defensive memeplexes will also become evident in the evangelization of eugenics in subsequent chapters; in an analogous way that the Janus-faces of positive and negative eugenics employed co-adapted memes to enforce normative behavior among their hosts that increased their own selfish success. In other words, while they may not have the physical existence of chromosomes and gametes, memes are all the more powerful, like viruses, for hijacking our own productive machinery (DNA, bodies and minds) to build more hosts or vehicles for themselves, and add new recruits for the cause. This ‘selfish behavior’ by ideologies was presciently prefigured by Galton (1869, 1874, 1904) for the rise and spread of religions and their taboos, by Madison Grant (1916, 1933) for the epic struggles between rival human races and the great civilizations of the past; and theorized by Galton (1883, 1904) and his eugenic disciples for the acceptance and growth of the science and secular religion of eugenics.

The concept of memes as a ‘mind virus’ was also first hypothesized by Dawkins (1976, pp. 197-199). His primary exemplar dealt with religious beliefs as a form of “blind faith” (p. 198) that infect novitiates during their early childhood and catechism training, but can maintain a lifelong influence

over the memetic phenotypes (memotypes) of their hosts. This now popular concept of memes as a “Virus of the Mind” was subsequently expanded upon by numerous disciples of Dawkins, most notably by Richard Brodie (1996) in his full-length book of the same name. Ironically, Distin’s *The Selfish Meme* (2005) largely rejected this characterization, except in narrow instances like Internet pop culture memes or other ephemeral ‘flash-in-the-pans’ that ‘go viral’ and then disappear just as fast, to be quickly replaced by the next new sensation.

Dawkins (1976) concluded the chapter on memes with a look at the “cheerful side” (p. 199) and their potential for relative longevity or associated fecundity compared to genes, at least for those ‘meme fountains’ whose memes fare well in the struggle for existence:

We were built as gene machines [or vehicles], created to pass on our genes. But that aspect of us will be forgotten in three generations. Your child, even your grandchild, may bear a resemblance to you, perhaps in facial features, in a talent for music, in the colour of her hair. But as each generation passes, the contribution of your genes is halved. It does not take long to reach negligible proportions.

But if you contribute to the world’s culture, if you have a good idea, compose a tune, invent a sparking plug, write a poem, it may live on intact, long after your genes have dissolved in the common pool. Socrates may or may not have a gene or two alive in the world today, G.C. Williams has remarked, but who cares? The meme-complexes of Socrates, Leonardo, Copernicus and Marconi are still going strong. (p. 199)

Despite the remarkable impact of these new replicators, Dawkins’ lamented how biologists continued to look for some biological advantage conferred at the gene level (or individual, group, or species level) for various cultural adaptations, rather than looking at cultural traits evolving simply because they are “advantageous to themselves” (p. 200). He argued that memetic theory does not require positing mysterious genes for exploration, innovation, invention, religion, or artistic trends and developments.²⁴ “All that is necessary is that the trait or behavior should be capable of imitation: memes will then evolve that exploit the capability to the full” (p. 200).

In *The Selfish Gene* (1976), Dawkins laid out the initial gospel of memetics, even if it was a theory looking for real-world application(s). Although it was but a skeletal framework, it was to be his most fulsome testament of his new idea, which others (like Dennett, 1995 and Distin, 2005) expanded to gospel length. Despite its brevity, this solitary chapter on memes brought forth a whole new discipline, blooming from those original seeds that found good soil in his initial disciple’s minds.

²⁴ This unsubstantiated speculation about behavioural genes or ‘unit factors’ that gave great survival or fitness advantages was actually common by early eugenicists on both sides of the Atlantic, including Francis Galton and American biologist Charles Davenport (see Historiography of Eugenics section in Appendix II).

Before looking at Dawkins' parting words in *The Selfish Gene*, which have particular relevance to eugenics in the progressive era, I wish to briefly consider two updates of Dawkins' 'dangerous idea,' after its *Selfish Gene* debut. The first is from 1982, when meme theory was still relatively unknown outside a small cadre, and then from a 1999 *Time* article. By the eve of the New Millennium, the notion of memes had gone mainstream and had almost evolved to self-awareness on the Internet.

Extending Memetics: *The Extended Phenotype*

Following in the footsteps of its ancestor, *The Extended Phenotype* (1982) offered a mere four pages or so to buttress Dawkins' initial foray into memes. Dawkins' concisely summarized the purpose of the new book in the first paragraph of the preface: "It is a personal look at the evolution of life, and in particular at the logic of natural selection and the level in the hierarchy of life at which natural selection can be said to take place" (p. v). In the forward to the new expanded edition (1999, Dawkins' rates *The Extended Phenotype* as his most important or compelling work, but does little to extend his earlier theorizing on memes. Rather, he used the section to clarify his initial suppositions in *The Selfish Gene*, and in particular how memes relate to his extended phenotype hypothesis.

The relevant chapter: "Organisms, Groups and Memes: Replicators or Vehicles?" is primarily intended as a defense of his earlier hypothesis for the replicator (whether genes or memes) being the hierarchical level at which selection mainly takes place, as opposed to the individual organism or the group. After briefly reviewing the concept of memes, Dawkins' "returns for clarification to DNA as our archetypal replicator" and the two most important "consequences on the world" (p. 109), and he offers this description of analogous links between DNA and memes:

Firstly, [DNA] makes copies of itself, making use of the cellular apparatus of replicases, etc. Secondly it has effects on the outside world, which influences the chances of its copies surviving. The first of these two effects corresponds to the meme's use of the apparatus of inter-individual communication and imitation to make copies of itself. If individuals live in a rich social climate in which imitation is common, this corresponds to a cellular climate rich in enzymes for copying DNA [these enzymes are known as replicases]. (p. 109)

But what about the second kind of effect of DNA, the kind conventionally called 'phenotypic'? How do a meme's phenotypic effects contribute to its success or failure in being replicated? The answer is the same for the genetic replicator. Any effect that a meme has on behaviour of a body bearing it may influence that meme's chance of surviving... but just as promoting bodily survival is only part of what constitutes success in genetic replicators, so there are other ways in which memes may work phenotypically for their own preservation. If the phenotypic effect of a meme is a tune, the catchier it is the more likely it is to be copied. If it is a scientific idea, its chances of spreading through the world's scientific brains will be enhanced by its compatibility with the already established corpus of ideas.

If it is a political or religious idea, it may assist its own survival if one of its phenotypic effects is to make its [host] bodies violently intolerable of alternate and unfamiliar ideas. A meme has its own opportunities for replication, and its own phenotypic effects, and there is no reason why success in a meme should have any connection whatever with genetic success. (p. 110)

Dawkins (1982) also devoted much of the short section on memes responding to other prominent academics, including critiques of his meme concept and confusion over memes and their cultural products (memotypes). Although he primarily used memes to buttress his case for biological replicators; the idea of memes and genes being unlinked in terms of selection, or even antagonistic to each other's evolutionary progress in the modern world, is particularly relevant to the racialized eugenics of the Nordacist strain in Interwar America or the race-hygiene of Nazi Germany.

One arena in which this idea was specifically addressed during the Interwar period, was the debate over whether war is a eugenic or dysgenic force in the modern world. Many eugenicists retained a romantic notion of 'old fashioned' warfare as a cleansing force, acting to select against weaker peoples or races. But these theorists were almost universally condemnatory of modern industrial warfare, which was thought to be particularly dysgenic for its rapacious destruction of the superior genes in Nordic soldiers, who were posited as the most courageous and self-sacrificing in the pursuit of victory. This argument was particularly prominent after the wholesale slaughter of the Great War, where the *crème* of WASP manhood went to war and suffered death or crippling injury; while their physical and racial inferiors remained at home to breed prolifically (or even 'steal' the girlfriends or wives of the patriotic Nordics who volunteered). One 'civic-biology' textbook author (Guyer, 1942) suggested that a wise biologist would send the unfit and inferior to fight the war and be killed, while keeping the superior 'old-stock' Americans at home to make more babies.²⁵

In this case, the memes for patriotism, sacrifice and service to the nation acted to select against their hosts differential survival, even while these memes brought victory to the Allied cause. These 'selfish memes' actually lowered the survival rates of their allegedly biologically superior hosts compared to the unfit; who were rejected by draft boards and military examiners and thus survived the war, without loss of career, limbs or livelihood. In some cases, this ironic discrimination for 'survival of the unfit' even allowed the rejects to occupy the vocational or leadership niches of those who served and perished. In the new industrialized 'wars of attrition' that kind of dysgenic slaughter could affect the gene-pool of a whole country, not to mention potential effects on the meme-pool.

²⁵ See the section on Guyer's 'civic biology' in Appendix II and his profile in the Eugenic Institutions section of Chapter IV, devoted to formal eugenics education at the college level.

Dawkins' (1982) rhetorical train paralleled this historical debate on war in considering, for instance, "suicide memes" that spread through a population, or "martyrdom memes" that drive their hosts to physical destruction in support of the meme's ideals (p. 111). He further emphasized the effects of the memetic environment in which these forces compete, in the following passage that touches upon the heart of the struggle between hardline hereditarianism in the Nazi Weltanschauung versus neo-Lamarckian paradigms like Lysenkoism in Stalin's USSR:

Similarly, an important aspect of selection in any one meme will be the other memes that already happen to dominate the meme-pool (Wilson 1975). If the society is already dominated by Marxist, or Nazi memes, any new meme's replication success will be influenced by its compatibility with the existing background. Positive feedbacks will provide a momentum which can carry meme-based evolution in directions unconnected with, or even contradictory to, the direction that would be favoured by gene-based evolution. I agree with Pulliam and Dunford (1980) that cultural evolution 'owes its origin and rules to genetic evolution, but it has a momentum all its own'. (p. 111)

In the last few paragraphs of this short section dealing with memes, Dawkins (1982) discussed some "significant differences between meme-based and gene-based selection processes" (p. 111). First, memes unlike genes, "are not strung out along linear chromosomes" nor can it be determined if they "compete for discrete loci, or that they have identifiable alleles" (p. 112). He reasserted that memes, in general, have a less faithful copying process, prone to more frequent and more dramatic 'mutations' in even a short sequence of copying events, allowing for rapid cultural evolution.

Furthermore, memes and their memotypic effects blend to a greater degree than genes, as well as recombining in new ways that do not have a direct genetic analogue. Dawkins also cautiously admitted a possibility for Lamarckian effects between memes and their phenotypic effects.²⁶ He even offered to sacrifice memes to preserve his central argument for biological replicators (like genes) being the primary focus for biological natural selection. Although he later recanted this self-coerced confession, once the cultural environment was more conducive to his meme concept (see next section for details), Dawkins even appeared willing to sacrifice his meme concept as a means for explaining cultural evolution, in a rhetorical plea-bargain to protect his extended phenotype notion:

²⁶ In this work and others, Dawkins repeatedly identifies himself as an "enthusiastic Darwinian" (just like Lysenko's supporters did even more dramatically in Stalin's Science Wars – see Pollock, 2006). But it soon becomes clear he is *always* means neo-Darwinism and excludes Lamarckian mechanisms (he even used the term neo-Weismannism, which used the biochemical mechanisms of DNA replication, transcription to RNA and translation into proteins to again refute the inheritance of acquired characteristics). Dawkins even used neo-Lamarckism as a rhetorical epithet to critics, analogous to such terms as 'leftist' or 'socialist' might serve in a diatribe from a staunch Republican or Conservative. This is best illustrated in Chapter 11 of Dawkins' *The Blind Watchmaker* (1986), where he lumps Lamarckism in with Preformationism and Creationism, as examples of "doomed" evolutionary paradigms.

These differences may prove sufficient to render the analogy with genetic natural selection worthless or even positively misleading. My own feeling is that its main value may lie not so much in helping us to understand human culture as in sharpening our perception of genetic natural selection. (p. 112).

As previously explained, the concept of memes first revealed in *The Selfish Gene* (1976) did not meet with overwhelming popular success. For many people outside the narrow range of academics and experts *The Extended Phenotype* (1982) primarily targeted (“evolutionary biologists, ethologists, and sociobiologists, ecologists, and philosophers and humanists interested in evolutionary scientists” (p. v)), Dawkins’ overt atheism was likely sufficient to preclude widespread popular adoption of meme theory (as he had actually rationalized using memetic theory). For the named experts, his radical theories of replicators driving biological evolution provided sufficient grist for criticism and even ridicule. As he outlined, his main purpose in *The Extended Phenotype* was to defend his memeplex of neo-Darwinism from vocal and influential critics. These included such renowned popularists of evolutionary biology as Stephen Jay Gould (1941-2002), who’s *Mismeasure of Man* (1981) and later works reached a large popular audience and critical acclaim from a wide range of academics and amateur scholars (as well as being a solid foundation for much of my early eugenics research).²⁷

However, by the time his one-and-a-half page ‘essay’ on memes appeared in the April 19, 1999 issue of *Time*, Dawkins’ atheism and selfish-gene theory had gained wide acceptance in both popular culture and the scientific community. Indeed, Dawkins’ later books reached a larger popular audience than Stephen Jay Gould’s later output, and I would even argue that Dawkins has inherited Gould’s mantle as one of the world’s pre-eminent popularizers of evolution and biological science, in a way that W. Russell Brain’s *Galatea, or the Future of Darwinism* (1927) from the *To-day and To-morrow* series never could have anticipated. And with the rise of the Internet and related forms of electronic communication giving rise to an enhanced memetic environment, Dawkins’ meme notion grew like a proverbial virus, and its phenotypic effects became sufficiently pronounced and diffused enough to even make converts of ultra-Conservative Tea Party Republicans and Fundamentalists, so long as the memes concerned fit the particular worldview of the would-be convert.²⁸

²⁷ Dawkins and Gould had such a lively professional and memetic rivalry that it provided the raw material for an entire book devoted to their back and forth over Darwinism, evolution and heredity: *Dawkins vs Gould: Survival of the Fittest* (2001) by evolutionary biologist Kim Sterelny.

²⁸ Anyone who doubts the social impact of memes at the turn of the Millennium should think first of Y2K, which produced more hype and panic than anything else to that point in the Internet Age, and made many doomsday pundits and hucksters rich, along with the niche tech industry that provided ‘Y2K solutions.’ That viral meme was soon trumped when “9/11 Changed Everything” and led not only to global panic and memetic wars over WMDs and regime-change, but also the rise of the ‘Truthers’ and an explosion of Islamophobia and related memes that continue to reap a rich harvest for opportunistic ‘post-Truth’ reactionaries like Donald Trump and Steve Bannon. If people are casting-about for a ‘brand name’ for the early 21st Century, the ‘Meme Age’ would not be a bad choice.

Signs of the *Times*: *The Selfish Meme* and *The Meme Machine*

Under the banner heading of “IDEAS,” Dawkins (1999) made his authorial debut in *Time* with a very short article entitled “The Selfish Meme” (p. 52), “adapted from his introduction to Susan Blackmore’s book, *The Meme Machine*” (1999). The article ended with a half-page box introducing Blackmore’s book with the title-teaser: “Is the Mind Just a Vehicle for Virulent Notions?” (p. 53).

Dawkins began his introduction with an amusing story that would resonate with any teacher or instructor that has been in one institution long enough to have taught either a series of siblings or a second generation of one’s previous students, and instantly see their common mannerisms, whether by genetics or familial upbringing:

Years ago, in an Oxford tutorial, I taught a young woman who affected an unusual habit. When asked a question that required deep thought, she would screw her eyes tight shut, jerk her head down to her chest and then freeze for up to half a minute before looking up, opening her eyes and answering the question with fluency and intelligence. I was amused by this and did an imitation of it to divert my colleagues after dinner. Among them was a distinguished Oxford philosopher. As soon as he saw my imitation, he immediately said, “That’s Wittgenstein! Is her surname _____, by any chance?” Taken back, I replied that it was. “I thought so,” said my colleague. Both her parents are professional philosophers and devoted followers of Wittgenstein.” The gesture had passed from the great philosopher, via one or both of her parents, to my pupil. (p. 52)

That little anecdote could have been used by neo-Lamarckians like Lysenko (though never for so ‘bourgeois’ a purpose) to argue for the inheritance of acquired characteristics. Some eugenicists in the progressive-era had explained such behavioral traits in terms of simple-Mendelian inheritance. Now Dawkins used the same story to introduce his memes to a popular audience who likely had no knowledge of Wittgenstein, Lysenko or Charles Davenport, but who were now primed by their own worldview to accept this new concept of “longitudinal” (from parent to child) memetic inheritance or transmission, especially when coming from a celebrity author like Richard Dawkins in 1999.

Dawkins (1999) continued his introduction, first using his virus metaphor for ideas that rapidly spread “horizontally” (p. 52) through a particular culture, or now globally through the Internet, much too rapidly for the longitudinal transmission in the opening vignette of the article to be significant. He pointed to the rapid spread of the “meme” meme (p. 52) as an example, and produced meta-data from the World Wide Web to back his assertions. This evidence included comparative search-result tabulations for various newly-coined terms of similar vintage, and the presence of a number of memetically-themed websites, even an online memetic church: the “Church of the Virus” that featured both “St. Darwin” and “St. Dawkins” as minor memetic deities (p. 52).

Dawkins (1999) continued the viral analogy for the horizontal spread of ideas in the new *Zeitgeist* of the Internet and related this to the ‘school crazes’ that infected whole cohorts of students in his days at an elite boarding school for boys. This analogy included a catchy origami trick his father learned at the same isolated British boarding school a generation before, with similar infectious results.

After making his case through these personal vignettes, Dawkins (1999) defended the charge that he had “backtracked on memes” (p. 53) after his original exposition (1976) had laid-out the idea, or that he had “lost heart” after receiving ‘flak’ from influential critics. He admitted his original mission was modest and mostly a hypothetical thought-experiment to bolster his theory of the raw replicator as the primary level for evolutionary genetic selection. Although Dawkins asserted he was always open to further development of his meme hypothesis, he confessed to being surprised when he read the initial forays by his first memetic disciples, like Dennett (1995) and Blackmore (1999). Dawkins was taken aback at how far they pushed memetic theory, even dropping the philosophical bombshell that “human consciousness is itself a huge complex of memes” (p. 53). Although it was ostensibly an introduction to Susan Blackmore’s book, Dawkins’ 1999 *Time* essay on the selfishness of memes concluded with a quote from his latest book, *Unweaving the Rainbow* (1998), in which a reinvigorated Dawkins philosophized poetically on memes:

There is an ecology of memes, a tropical forest of memes, a termite mound of memes. Memes don’t only leap from mind to mind by imitation, in cultures. That is just the tip of the iceberg. Rather they thrive, multiply and compete within our minds. When we announce to the world a good idea, who knows what subconscious, quasi-Darwinian selection has gone on behind the scenes inside our heads. Our minds are invaded by memes, as ancient bacteria invaded our distant ancestors’ cells and became mitochondria. Cheshire Cat-like, memes merge into our minds, even become our minds. (p. 53)

So, from his modest mission and evolutionary thought-experiment to bolster his arguments in *The Selfish Gene* in 1976, Dawkins’ notion of the meme, had taken root in the *Zeitgeist* and grown into a proto-science, in the span of twenty years. This is roughly the same period of time required by Galton to have his original (1883) recapitulation of the ancient memeplex of eugenics reach a global audience (1904), and the initial formation of eugenics societies (1907 in Britain, 1908 in America, and 1912 in Australia (Engs, 2005)). Now in 1999, Dawkins was enjoying the fruits of his conceptual innovation and the miracles performed by his initial disciples in their popularization of his memetic gospel through the wonders of the World Wide Web. Of course, he had no idea that hostile foreign Intelligence agents or Internet Trolls could take his creation and ‘weaponize’ it for the memetic mobilization of an entirely different sort of social movement than what Dawkins intended.

From Pure Memetics to its Application to Eugenics and its Evangelization

This overview of memes and memetic theory could easily become an entire dissertation (like Distin, 2005), which is not the ultimate purpose here. Although a deep understanding of memetics requires more background than I have offered here, it should be sufficient to put to the basic ideas to the test in considering the heart of my doctoral research; the historical study of eugenics and its education using the primary sources already identified: the *To-day and Tomorrow* series and the AES journal *Eugenics*. As will become evident in the next two chapters exploring the eugenics memes preserved in the *To-day and To-morrow* series and the AES journal *Eugenics*, eugenicists explored a wide variety of meme transmission formats to boost their reception and copying-fidelity in receivers. They tried to boost the fecundity of their memes by finding the ‘sweet-spot’ between academic or scholarly authority and popular appeal to the progressive public; without pandering or engaging in outright sensationalism like the populist tabloids, or today’s fringe websites serving the Alt-Right.

Before closing this section, let us return to the closing paragraphs of Dawkins’ memetic debut from *The Selfish Gene* (1976). In the final passage, Dawkins asserts that of all our mental and memetic tricks, the one he admired the most and placed the most faith for the long-term future of humanity, is our unique capacity for conscious forethought: “We have the power to defy the selfish genes of our birth” and even “the selfish memes of our indoctrination,” so that “we, alone on earth, can rebel against the tyranny of our selfish replicators” (p. 200, 201). But there was no mention by Dawkins (either in 1976 or in his later works) that this had been attempted before, perhaps even leading the naïve reader to conclude that it had not. Of course, Dawkins would not likely have mentioned eugenics as a valid precursor for benevolent memetic engineering or scientific management; nor would he have considered traditional religions as offering essentially the same kind of solution for the harmonious and evolutionary-stable future of mankind. But now I am asking my own dangerous questions: *Was eugenics as much a proto-memetic movement as it was religious and biological? Could eugenics actually be the first organized union of Darwinism and Mendelian inheritance with proto-Memetics?*

If so, what are the critical implications for anyone else attempting to manage or control societal memes through popular diffusion, formal education or political action? These impertinent questions are considered briefly in the next section and in much more detail in Chapter V. It is my contention that eugenics was a precursor to Dawkins’ utopic notion for a new memetic-scientific rationalization of society. But American eugenics, as detailed in Chapter IV and Appendix IV, was based on simple-Mendelian genetics, Social Darwinism, ‘Progressive Protestantism’ and WASP racial-hygiene, rather than the ‘progressive memetics’ and ‘enlightened neo-Darwinism’ advocated by Dawkins (1976).

American Eugenics as a Fusion of Political, Religious and Scientific Memes

Eugenics was intended from the start to utilize mankind's innate ability for conscious foresight (a quality that Nordics were alleged to possess in abundant measure). It was an organized campaign to engineer or consciously direct human evolution (see picture and caption of the 'Eugenics Tree' on page 58 of this chapter and fully explained in the Eugenics and the Church section of Appendix IV). In America, eugenics was specially formulated to positively select Nordics with the best biological, mental, and spiritual endowments. By breeding and education, WASP memes were also to be preferentially propagated to future generations and progressively spread throughout the population. This was explicitly stated in the journal *Eugenics*, and in the published agendas of the American Eugenics Society and other period organizations (See Figure 1-1 and Chapter IV for details).

Through the systematic practice of negative eugenics, dysgenic biological traits would be selected against and gradually disappear from the gene pool. In the same way, through widespread eugenics education, undesirable or dysgenic memes (vice, pauperism, and other forms of immorality) would, in theory, be extinguished from the meme-pool. Together, positive and negative eugenics was to inaugurate a long-term restoration of the spiritual and biological vigour of the Nordic race in Revolutionary-era America to their fittest descendants of the Progressive-era; with the timely aid of immigration restriction laws to limit non-WASP entrants. Eugenics also offered the means to increase economic productivity and social prosperity, by weeding out the unfit, undisciplined, or otherwise unsalvageable in the course of a few generations. Thus, American Eugenics was a 'scientifically optimized' scheme to '*Make America Great Again*,' a phrase popularized by Ronald Reagan in the neo-Conservative restoration of the 1980s, but globalized by the incendiary campaign of Donald Trump in 2016, spawning the 'viral hash-tag' #MAGA and also selling a lot of hats.²⁹

Numerous component memes from the 'scientifically optimized' paradigm of eugenics have carried-over to the analogous 'popularly optimized' schemes or movements by today's right-wing Populists. Other historical memes have either receded into dormancy, or mutated into new memetic alleles from their progressive-era ancestors. These recurrences and mutations are presented in Chapter III and IV (and Appendix III and IV) and discussed, analyzed and mapped in Chapter V.

²⁹ *Make America Great Again* is a memetic exemplar of the 'Seinfeld Effect' (see glossary of memetic terms in Appendix I, pages 365-370). This nod to that famous 90s 'show about nothing' refers to the remarkable efficacy of a viral 'water-cooler' TV-show (or other mass-media hit phenomenon) in reviving older popular memes and rebranding them as their own. Trump's appropriation of Reagan's old catch-phrase for a new generation of conservative zealots, has already led, in part, to the new memeplex of 'the Trump Effect.' This phenomenon includes, in part, the reputed unwillingness of Trump supporters to identify as such in telephone or online polls. This has even crossed-over to anonymous Internet forums, like Yahoo! (my usual choice of memetic laboratory), where ardent Trump supporters regularly begin their comments with some variation of "I'm no Trump supporter, but..."

As a student of eugenics and now of memetics, reading the anonymous online comments on social-media sites posted by myriads of enthusiastic pundits from all political factions and diverse viewpoints has been a fascinating real-time laboratory for studying racial-religious-political memes in their current guises, and transposing these with the analogous memes or meme-clusters expressed in the heyday of eugenics and race-hygiene. The anonymous online comments are oftentimes entirely congruent with the ‘pre-meme’ attitudes and opinions expressed by articles, columns, editorials and letters in the pages of *Eugenics*, or in the eugenically relevant volumes of *To-day and To-morrow*.

Old memes, meme-clusters or paradigms, like race-based Immigration Restriction or Nazism, previously thought to be inoculated-against or even eradicated from ‘civilized’ Western society as a consequence of decades of antiracism education, ‘political correctness’ and even civil-rights legislation can become virulent and even dominant again under the right conditions. Conversely, once-popular memes or paradigms, like the once-accepted notion of organized eugenics as a viable scientific paradigm and social movement, can recede into insignificance in a changed cultural environment, in the same “three generations” (p. 199) or so postulated by Dawkins (1976) for the dissolution of genes over successive generations. It remains to be seen whether any perennially-popular or once-dominant memplex, such as cultural, racial or religious Nativism, can ever be fully extirpated from the meme-pool, at least not in the age of right-wing mass-media, online information access and storage, and the preserved records of every major idea from history.

Although the eugenics paradigm of the progressive-era did not explicitly acknowledge the notion of memes, memetics can be used to retroactively theorize the science and secular religion (Galton, 1904) of eugenics. It can even be used to show a naïve prefiguring of memetics in the ancestral memes and theories of the pioneering socio-biological disciplines and pedagogical theories adopted by eugenics evangelists in their educational efforts. Memetics can also be used as a theoretical model to study and explain eugenics’ contemporary rivals, including Lysenkoism, Nazi race-hygiene, Imperial Japanese racial policies, or Maoist revolutionary euthenics.

Could eugenics also be considered a ‘preconscious antecedent’ of Dawkins’ notion of memetic engineering for a progressive future, arising from the common evolutionary root of neo-Darwinism? Evolutionary biology, social-biology and human geography were all foundational disciplinary roots for eugenics (see Figure 2-5 on page 58), eventually leading to the proto-science of memetics. Are eugenics and memetics evolutionary ‘kissing-cousins’ or just asynchronous memetic rivals? These issues will be explored and discussed over the course of the next three chapters. The reader can decide just how efficacious my presentation, analysis and commentary is, compared to prior, less ‘memetically-aware’ alternatives pursued in the past, like Haller, 1963; Kevles, 1987; or Smith, 1993.

There is no reason why an applied academic discipline of ‘Political Memetics’ might not arise, like its social-science antecedent of Political Science. If it proved its political-economic worth by designing and delivering optimized messaging, media coverage and fund-raising efforts, memetics could be turned into an applied science with numerous potential spin-off technologies.

One could argue that today’s Internet ‘Troll Factories,’ organized collectives of social-media pundits amplified by armies of Net-Bots, qualify as valid memetic precursors of just such a system. Indeed, the American National Security establishment belatedly released declassified overviews of the methods used by thousands of ‘keyboard warriors’ hired by the Russian FSB (Federal Security Service of the Russian Federation), who worked in shifts around the clock, to perform their memetic mercenary duty (Ioffe, 2017). One such collective operates out of St. Petersburg in relative obscurity, yet continues to have a powerful, far-reaching influence on democratic nations around the world. So far, none have been as extensive or politicized as in the 2016 American Presidential election, where these groups pumped-out a virtual cacophony of ‘fake news’ (*dezinformatsiya* in Russian cyber-warfare theory) and strategically orchestrated a digital blizzard of ‘leaked’ documents that filled 24-hour news cycles in crucial periods of the campaign, in an attempt to ‘rig the election’ (Ioffe, 2017).

Indeed, ‘*Fake News*’ became one of the most hyped memes of the campaign, and is now over-used the world-over. One could even speculate beyond the purposes of this study whether this sort of directed ‘Negative Memetics’ *pogrom* could be a novel new analogue of negative eugenics for the Cyber-age, as a new, mutated memetic allele for a new generation of enthusiasts. But that is the subject for another paper, or a future book by someone much smarter about these things than I.

So, having speculated about eugenics and its applied educational programs and consequences as an evolutionary precursor to applied memetics, and how memetics may inform that bold contention, this chapter now continues with a look at the converse of the evangelization of novel memes. The next section examines how our existing memeplexes, operational paradigms and even our prevailing worldview are defended from infection or assimilation by foreign or hostile memes, meme-clusters and memeplexes. These filters are essential to protect any established complex memeplex or worldview; otherwise we would all be constantly vulnerable to con-men, hucksters, scammers and social predators of all description. But no meme-filter is impermeable or invulnerable to determined, expert attempts to penetrate our defenses. That reality will be explored in the subsequent section. Both meme-filters and filter-bypass mechanisms are necessary for any memeplex, worldview, or social movement to coalesce, grow and reach critical mass in a field of rivals, and both are at the heart of memetic competition and ideological warfare.

The Role of Meme-filters to Block Hostile Memes from Infecting existing Memeplexes

Far too many professional political commentators to cite have remarked on the increasing polarization of politics in America especially, but also in Britain and Canada, and indeed much of the Democratic West. A revival of neo-Nazis or far-right Nationalist Parties is sweeping across Europe, from Poland to Britain. Corporate Fascism (complete with implicit if not explicit racism) is a name-brand meme. Attempts to export American-style democracy to the Middle-East, Africa and Asia have either been costly debacles, or given rise to even more brutal and corrupt autocratic regimes than the broken systems they replaced (such as ISIL from the remnants of Saddam Hussein's ruling Baathist Party in Iraq). Can all this be pinned, as it once was, on racial inferiority and mental-physical degeneration due to medical intervention and the misguided crutch of welfare schemes and social reforms? Is it, as numerous Nordicists thought, that the competency and stability of Anglo-Saxon superiors has been swamped by racial or moral inferiors, encouraged by socialist-egalitarian myths and corrupted by neo-Lamarckian paradigms? Or is it even simpler, as some Fundamentalist Christians have asserted, wherein Satan has usurped full dominion on Earth and the godless minions he commands have doomed all to eventual Armageddon in the End Times?

Each of these disparate paradigms, or any worldview worthy of emulation, is a self-contained and self-propagating memeplex of incredible complexity, with formidable defenses to attacks or infection from rival memes or 'enemy' paradigms. Without these defenses, a memeplex or paradigm is ripe for takeover or subversion by memetic rivals or populist competitors. In many ways, Donald Trump's takeover of the GOP is a sterling example of a social movement that failed to defend itself. As a 'RINO' (Republican in Name Only), Trump managed to infiltrate into the Republican Party apparatus with his conspiratorial insinuations about Barack Obama as part of the '*Birther*' memeplex. He solidified his status as #1 GOP meme-fountain through his populist race-baiting of Blacks, Mexicans, Muslims, Feminists, and culminating in scapegoating Jews and their '*New World Order*' as the motherlode of conspiracy-theorist wonks, in his infamous 'Star of David Tweet' (Green, 2017).

Trump took the dog-whistle racial memes and 'Law & Order' agenda that were part of the GOP meme-pool since Richard Nixon's 1968 campaign, if not longer, and made them even more virulent by packaging them in an anti-Intellectual and anti-Establishment 'protein-coat.' By the time the GOP leadership realized how far the infection had spread, they were trapped by their pledge to support the primary results and were dissuaded from interfering by Candidate Trump's implicit, yet credible threat of party-warfare and civil-unrest. By then the energy and momentum of the 'Trump Train' (another Seinfeld-effect meme) was enough to plow through any establishment barricade, and prompted many insiders to get on-board, to avoid getting left-behind or run-over.

As the previous examples highlight, just as an individual organism has an immune system to defend itself against viruses or other forms of infection; an evolutionary successful memplex or paradigm must have defenses against being infected, corrupted or conquered by rival or antagonistic memes or paradigms. See Figure 2-1 on page 50 for a representation of how the meme-filters of a mature memplex or paradigm block or filter hostile memes before they are assimilated into one's worldview. Dawkins popularly spoke of these filters in regards to religion, saying essentially that most people are atheists when it comes to all other religions than their own cherished faith or sect within a major faith group; but as a true atheist, he just takes the process one step further. This religious polarization between sects was particularly bloody and brutal during the religious wars or crusades that appear like infectious rashes across the pages of history, right up to the present.

The Trump-Clinton political divide in the 2016 campaign was a compelling 21st Century example of these memetic filters, which not only resist conversion and compromise, but actually drive-away moderates and pragmatic compromisers. Even in the realm of science, but especially now in the social sciences, competing paradigms have their adherents and detractors, and often form 'schools of thought' or like-memed coteries.³⁰ Thomas Kuhn's (1962) seminal treatise on scientific revolutions dealt with the Darwinian struggle between rival scientific theories or paradigms, in which one paradigm is overthrown after an extended period of memetic combat with a rival paradigm. For Kuhn (1962) the classic exemplar was Newtonian physics being supplanted by quantum mechanics and relativity. However, we could list examples from almost any pure science, such as the 'progression' from non-evolutionary religious dogmas (like the classic Natural Theology of William Paley, from which Dawkins borrowed his title for *The Blind Watchmaker*, 1986), to Lamarckian evolution, to Darwinism to neo-Darwinism; and even to the broad triumph of 'gradualism' of Dawkins' over the 'punctuated equilibrium' of his late rival, Stephen Jay Gould (Sterelny, 2001).

However, for most of these defeated rival paradigms, even scientifically-refuted Lamarckian evolution, there are often pockets of secret or persistent believers that survived the decisive memetic battles. These discredited memes or memplexes go into exile or dormancy, or remain as naïve³¹ memes or meme-clusters in the meme-pool. Dawkins (1986) gives examples of such persistent hold-outs and naïve remnants of these 'doomed rivals' in the final chapter of *Blind Watchmaker*, including neo-Lamarckianism.

³⁰ Boyd and Richerson (2000, p. 159) refer to the "Balkanization" of the social sciences into divided, insular camps.

³¹ By naïve memes, I mean the host or meme vehicle holds these memes, but is not aware of or does not recognize the larger memplex they are part of. Naïve Lamarckians may hold loose ideas that would fall under inheritance of acquired characteristics, but are not aware of the paradigm of Lamarckianism or that it has been long discredited.

But with enough time and the right memetic environment, dormant memes may be resurrected and flower again in new guises (such as the renaissance of ‘scientific Creationism’ among Christian Fundamentalists). Of course, this has huge implications for popular, formal and professional education, not only for eugenics or euthenics, but almost any contentious subject or academic discipline. Novice disciples must not only be inculcated into their chosen paradigm, but must also be indoctrinated and inoculated against rival schools or competing memeplexes in order to prevent not only defection or capitulation, but perhaps also major accommodation or compromise that might lead to weakening or dilution of each rival memeplex from their blending. Many of Dawkins’ memetic successors have expanded upon his idea of memetic filters, and applied this to religion or scientific paradigms, but most have had the good sense to avoid the topic of partisan politics.

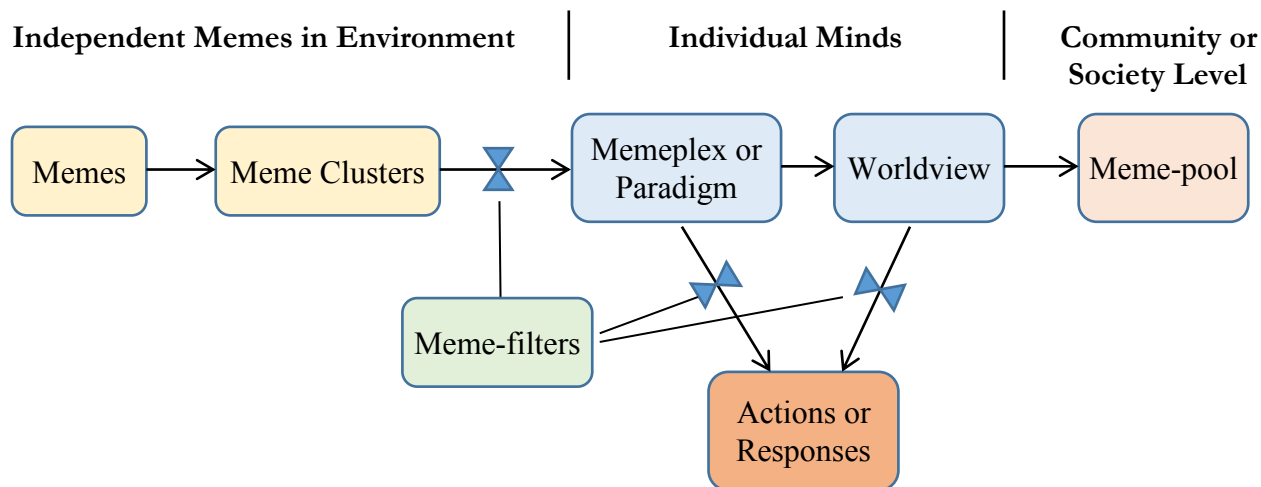
This same memetic struggle and the role of meme-filters to discredit or reject rival theories and memeplexes was very evident in the struggle between the adherents of eugenics (hereditarianism) and euthenics (environmentalism), as is illustrated in Figure 2-2 on page 50. This struggle famously played-out in the Interwar memetic battle between racial anthropology (led by ardent Nordicists like Henry F. Osborn) and cultural anthropology, as championed by Franz Boas and his memetic school of thought (Spiro, 2009). This schism in anthropology was carried-over into the various applications of anthropology, and into sociology, educational psychology and many other disciplinary bases that inform pedagogy and curriculum, as highlighted by C. C. Little in his lead-feature article “The Relation of Eugenics to Education” in “The Birthday Number” issue (October, 1928, pp. 3-5) of *Eugenics*. Many of the see-saw battles between rival educational reforms up to the present can be traced back (at least in part) to this fundamental divide between hereditarians and environmentalists. We can also see this memetic friction, competition and polarization in numerous antagonistic ‘pairings’ of the *To-day and To-morrow* series, such as J. B. S. Haldane-Bertrand Russell (1923, 1924) on the “Future of Science” and A. M. Ludovici-Dora Russell (1925) on the “Future of Women.”

To my acquired memetic paradigm, one of the best expressions of this memetic struggle and the role of meme-filters comes from Kate Distin’s *The Selfish Meme* (2005), in which she updates the “Parable of the Sower” (p. 173) from the New Testament to explain memetic theory today. In a chapter attempting to explain the relationship between memes and the human mind (pp. 168-184), Distin discussed how psychological therapists target and identify the unhealthy subconscious memetic ‘scripts’ running in their patients minds in order to treat psychic conflicts or neuroses. The same methods could also be used to ‘de-program’ cult survivors or ‘re-educate’ political prisoners to modify or purge their ‘heretical’ but deeply embedded and often tacit memes. The extended passage below could just as easily applied to educational efforts as to its religious genesis:

On this view, consciousness cannot be explained as a meme machine, but rather the memes-mind relationship was more accurately portrayed two thousand years ago in the parable of the sower. In that parable, a farmer sows seeds in a variety of soils, with different outcomes: the seed on the path is quickly eaten by birds; the plants that grow from seed sown on rocky places are soon scorched by the sun; the plants that grow among thorns are soon choked; but the seeds that are sown on good soil grows strongly; multiplying many times over. The message is clear: different people (and even the same person at different times and stages of her life) will respond to the same information in many different ways. Incoming memes – the seeds of the parable – will be understood, remembered and acted upon and then passed onto others with varying degrees of accuracy and enthusiasm, depending on its recipient’s mind – the soil. Of course the “type of soil” will be determined to a certain extent by the recipient’s innate personality and by his past experiences and cultural background. The potential within the “seeds” will be realized in different ways, depending on both his genotype and his current memotype. (p. 173)

Notice in the parable, the ‘odds’ are rhetorically stacked against a seed finding good, fertile soil. In memetics, the odds of an antagonistic meme bypassing the meme-filters of a hardened memeplex in the mind of an unsympathetic receiver are minimal, at best. If not rejected outright as ‘liberal PC propaganda’ or ‘right-wing hate-mongering’ the incoming foreign meme still has to contend with the deeply embedded memes that make up the individual’s particular memeplex(es) or worldview, and the dominant group(s) in a particular community or society. These meme-filters for incoming memes (see my original diagram in Figure 2-1 on the next page) are like preventative public medicine (e.g., condoms) or anti-virus software programs for networked computers.

But even if it is temporarily retained, a novel meme may be squelched or even purged when the recipient then attempts to pass it on to ‘uninfected’ members of his social community or peer-group. The individual may be criticized, ridiculed or ostracized depending on the receiver(s) and their reaction(s). This is where the outgoing meme-filters in Figure 2-1 on the next page play their role. They help to ‘normalize behavior’ and control outbursts of anti-social or hostile acts. This ‘court of public opinion’ at the herd or tribal level acts to inform the behavioral filters of most social animals, including most humans, most of the time. Unless there is a drastic change in the memetic environment, so that the rival memes reach a certain critical mass or dominant position in the population, ‘foreign’ memes, much like a ‘quarantined’ computer virus, cannot flower and multiply within a memetic community. If they are deemed sufficiently pernicious, for instance a ‘suicide-meme’ epidemic in a remote Aboriginal community, the community may actively suppress the meme, or try to eliminate it from the meme-pool. But filters and filter-bypass mechanisms are in constant competition, much like anti-virus software firms play cat-and-mouse with the hackers and cyber-criminals who try to defeat the defenses, in a Darwinian cyber-struggle of growing intensity.



✕ is the standard symbology for a valve in engineering process flowcharts and the like.

Figure 2-1: The hierarchy of memes and the role of meme-filters to defend against the incorporation of hostile memes, and prevent one from acting against one's inculcated paradigm(s) or worldview. Meme-filters are not simple on-or-off valves, rather they are like software firewalls or virus scanners, generally effective in most people most of the time, but still vulnerable to bypass attempts.

Figure 2-2 below illustrates a simplified view of the hereditarian-environmentalist memetic spectrum (it will be shown in more detail later in this chapter and explained more fully in Chapter V). Of primary concern in this study is the hereditarian side of the spectrum, traditionally associated with the political right in Western countries, with Nazi Germany as the extreme exemplar. There, the suspension of democracy and suppression of political opposition allowed hardline eugenics and *Rassenhygiene* (race-hygiene) to be imposed by the State without serious challenge, so Party-sanctioned memes, meme-clusters and paradigms could grow and take hold in the Zeitgeist, without any significant memetic competition from rivals, or even a moderating influence from less ardent allies.

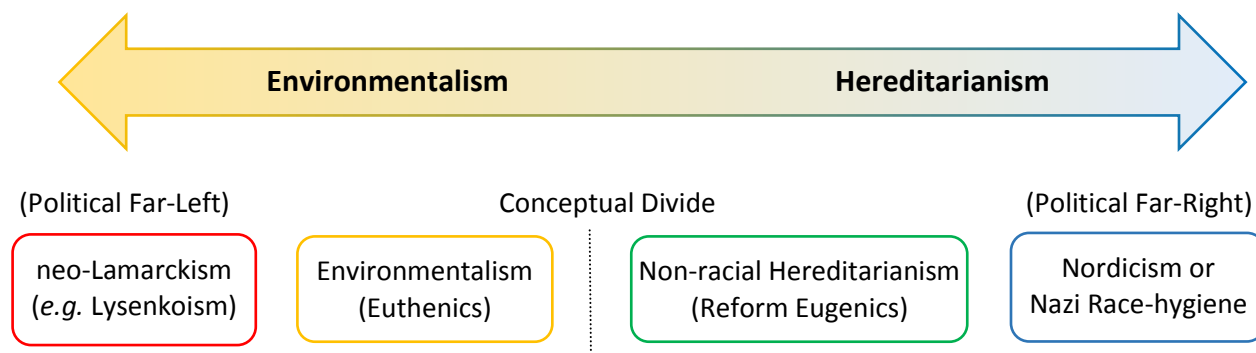


Figure 2-2: A simplified view of the environmentalist-hereditarian memetic spectrum. This will be discussed in more detail in the second part of this chapter, and explained more fully in Chapter V. The borderline color-codes used here will be carried-over throughout the rest of this dissertation (e.g., blue for Nordicism or Race-hygiene, green for Reform (non-racial) Eugenics).

In Interwar America by contrast, the memetic hierarchy for the hereditarian worldview could be envisioned as shown in Figure 2-3 below. The box shading and border colour schemes presented here will be used throughout his dissertation (see Figure 2-6 for environmental analogues).

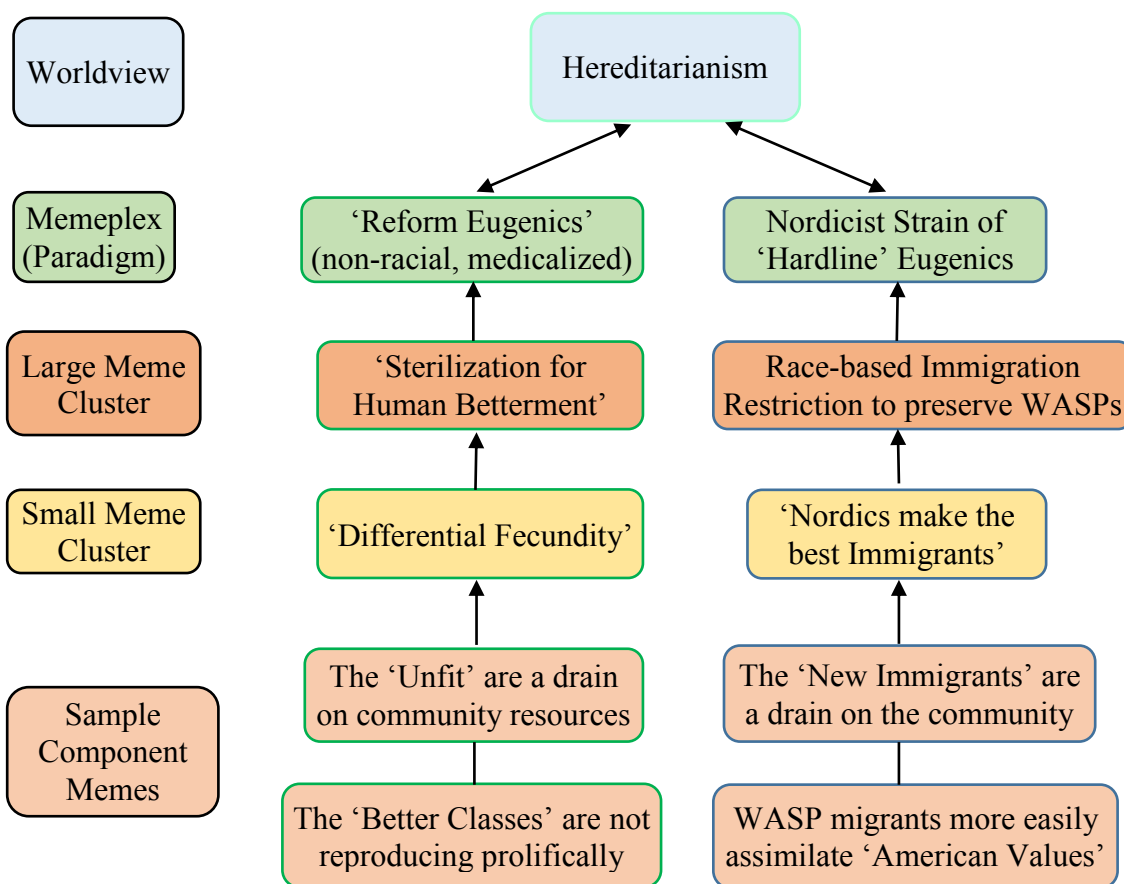


Figure 2-3: A sample memetic hierarchy for the hereditarian worldview, illustrating the two main memeplexes from Interwar America, along with sample meme-clusters and component memes for each of these name-brand eugenics paradigms. Chapters III-V offer more details and additional meme-maps for both the Nordicist and Reform Eugenics paradigms, and their educational thrusts.

The conceptual framework illustrated in Figure 2-2 and the numerous meme-maps (like the generic one in Figure 2-3) which are derived from this framework is partially my own creation, based on my research of the history of eugenics and its primary ideological rivals: euthenics and neo-Lamarckianism in all its various forms. Although the terms for the four main paradigms and the resulting memetic products (memotypes) had been well-established (Osborn, 1968; Kevles, 1985; Spiro, 2009), my contribution was to arrange these on a spectrum with the corresponding political poles. While many educators and academics might shy away from the partisan political labels, the historical associations are rather compelling.

Although neo-Lamarckianism has traditionally been a product of Marxist-Stalinist ideology (Brain, 1927 being a curious exception), while hardline eugenics and race-hygiene has always been associated with far-right or Fascist regimes, there is no fundamental reason why a left-wing populist could not employ eugenic policies if they were supported by their base (a more difficult proposition in the past). One example that has been touted was to associate the ‘One Child’ Policy in post-Mao Communist China with eugenics, a stark reversal of the Maoist neo-Lamarckian policies behind the Great Leap Forward and the Cultural Revolution (Dikotter, 2010, 2016). I would argue that policy was more an example of radical euthenics (changing the overall societal demographics) rather than hereditarian eugenics, as there was no real claim that the policy was ‘improving the race’ or ‘weeding out undesirables.’ In fact, in its actual implementation the policy produced a gender imbalance that has had negative consequences for a whole generation of males that were doomed to not being able to find a mate. If that Darwinian struggle was based on biological fitness rather than economic status or wealth of the male suitors, one could make a case for a eugenic result.

On the other hand, there is also no reason why a populist right-wing government might not support euthenic policies as part social policy to improve the lives and working conditions of workers and their families, say to improve national productivity or competitiveness. But both these reversals of historical trends or worldviews would be atypical to say the least, and ideologically dissonant. Most far-right regimes, including the Trump administration, typically claw-back existing social programs and public health policies designed to benefit the poor and working classes, with a tradition going back to the social-Darwinism of pre-Victorian Britain. A good example today is the hostility directed at Planned Parenthood by the Republican Party and parroted by Trump to garner the support of the Fundamentalist Christian Right. This extends beyond the traditional opprobrium directed at the abortion services provided by Planned Parenthood, which have long been defunded by taxpayers, to extend even to the provision of contraception and reproductive health services for poor women or women of colour (Kliff, 2018).

The two major eugenical speciations of hereditarianism at the memeplex or paradigm level, as illustrated in Figure 2-3 are explored further and fleshed-out in Chapters III and IV (with extra-exemplars in Appendix III and IV), and then analyzed and discussed further in Chapter V. These two major variants are not the only historical or possible strains; the folk-eugenics of ancient Sparta or Norse race-hygiene schemes (like eliminating newborns with serious birth defects) were primitive analogues from the past. But at the raw meme level, these alternative schemes or memetic alleles share many simple building blocks or common elements in their respective paradigms, like the shards of glass in a kaleidoscope rearranged to give different gestalt patterns.

If it hasn't already occurred to the reader, the same memetic struggle is a part of that field of science education and science-teacher education that deals with recognizing, identifying and 'overcoming' what have been described as scientific misconceptions, alternate or even 'naïve' conceptions. For instance, in a biology course dealing with genetics, Lamarckian inheritance might be a targeted meme to be addressed, just as 'Western, Fascist, Imperialist genetics' was targeted in the Soviet Union during Lysenko's reign as a top authority in Stalinist Science education programs (Kohlman, 2011). An entire niche has been carved into the academic science-education totem-pole, and has produced a forest of articles and books devoted to rooting-out and replacing these wayward memes with the accepted conventional wisdom of the preferred paradigm (Pfundt & Duit, 1994).

In the post-post-modern science-education milieu, certain religious traditions or 'protected' cultural worldviews have 'memetic conservationists' that argue for an exception or dispensation against conversion (e.g., Aikenhead, 1998). However unless they are specifically protected, these alternative conceptions are fair-game for culling from the meme-herd. And yet, from the same body of science-education literature, we know that these foreign, wild or feral memes are remarkably resistant to attempts to eradicate or even systematically alter them; especially when this memetic intervention is only within the confines of the classroom, or over the course of a student's science-education. Once students are back in the 'wild' of society, the suppressed memes may again find expression and even multiply in like-minded communities. Is there any doubt that the same semi-futile struggle would apply to countering xenophobia or overt racism and religious bigotry?

Much of the formal and popular eugenics education programs, the 'social-hygiene' education of the 1930s or the further watered-down hygiene classes of the Baby-Boom years (Currell & Cogdell, 2006), was an organized attempt to stamp-out foreign memes (e.g., pre-marital sex, women delaying marriage for a career) that were deemed antagonistic to the dominant WASP memes in the meme-pool. Exemplary illustrations of this in the pages of *Eugenics* can be found in the 'Eugenic Disciples' series of Dr. Florence Brown Sherbon in her Popular Education column (Chapter IV), and Dr. Rudolph Binder's article on eugenics education in the sociology department at NYU (Appendix IV).

The progressive-era's eugenics movement attempted to propagate those cherished WASP memes it wanted to conserve, and plant its eugenic seeds in the next generation through its formal 'civic-biology' or college eugenics courses and extensive popular education. Preparing the memetic soil through eugenics education was also a focus of the AES through its popular outreach programs, like 'Fitter Families' and 'Better Babies' contests at State Fairs and similar events (see Chapter IV). This evangelization meant tailoring the message to potential converts to bypass the receiver's meme-filters that would otherwise block the gospel of eugenics, as explained next.

Sowing the Memes – Penetrating the Defenses

If the odds are stacked against ‘randomly-sowed memes’ finding ‘good’ soil by the action of meme-filters that defend against ‘hostile’ foreign memes to protect the hosts established worldview and memeplexes, how is a novel idea, rival dogma, or wild mutant meme from the memetic hinterland supposed to find sanctuary and a foothold in the minds of their potential hosts? And how are novel memes, clusters or paradigms to be successfully transmitted again to multiply in the meme-pool, or be digitally ‘retweeted’ to new recipients to virally spread through the “Twitterverse”?

Rosaria Conte (2000), in her chapter contribution to *Darwinizing Culture*, describes the spread of memes through social minds, and posits a double-filter process for sorting and evaluating incoming memes and generating goals. The primary filter sifts incoming memes for further processing; either dismissing (rejecting outright) memes as incompatible with one’s existing memeplex or worldview, while another filter acts on incorporated or accepted memes, when the memetic agent is generating goals or plans for action in a decision making process. Conte (2000) lists a number of pragmatic criteria that must be met or addressed to pass the primary meme filter, in order to be accepted and acted upon later. In this instance, she is specifically referring to beliefs as opposed to other types of memes, but this is appropriate for our consideration of political, racial, or religious memes, whether dealing with Interwar eugenics or the racial-religious memes of today’s crude Nativism. A partial list of these filter-bypass mechanisms (p. 92) is paraphrased below, which covers the relevant situations for our purposes:

1. *Self-protection and self-enhancement*: agents may be led to accept a given belief because of that belief’s positive effect on the [receivers] self-esteem or self-concept. Essentially ‘pandering’ to a person or group’s pride or vanity, or anticipating or targeting their innate desires or worldview.
2. *Commitment* to a given set of beliefs provides one important reason for accepting further, consistent beliefs, in spite of, or independent of incompatible evidence: agents that accept beliefs out of commitment do not check their truth value. Essentially this acts as an ideological doorway that allows memes to bypass the full apparatus of fact-checking and evaluation; *i.e.* ‘suspension of disbelief.’
3. *Empathy*: agents may want to accept the views of their close connections (again without fully evaluating the purported views actual truth value). Essentially this describes the situation of a personal testimonial from a trusted person or group, such as one’s chosen political Party.
4. *Prudence*: agents may accept uncertain information (e.g., rumours, gossip, even calumnies) and behave as if they were certain (to pass them on without fact-checking or confirmation). Again, a sort of suspension of disbelief, so long as the rumour or gossip fits one’s ideological views.

One could likely propose additional instances where incoming memes are, in whole or in part, accepted on faith; without a complete analysis or a guarded evaluation of their ‘*truthiness*’ (Steven Colbert, 2005). These bypass mechanisms circumvent the memetic filters of the receiver, as illustrated below in Figure 2-4. Experienced persuaders (salespeople, politicians, lawyers, etc.) often rely on rhetorical devices and other memetic strategies that are designed to act as ‘Trojan Horses’ for novel or even hostile memes that the memetic filters of customers, subjects or jurors (potential meme receivers) would otherwise reject outright. Perhaps the classic example is advertisers using bikini-clad models in beer commercials during sports programming to sell their sponsor’s brand of suds to an overwhelmingly male clientele.

Bypass Mechanisms or Rhetorical Strategies can Circumvent the Meme-filters

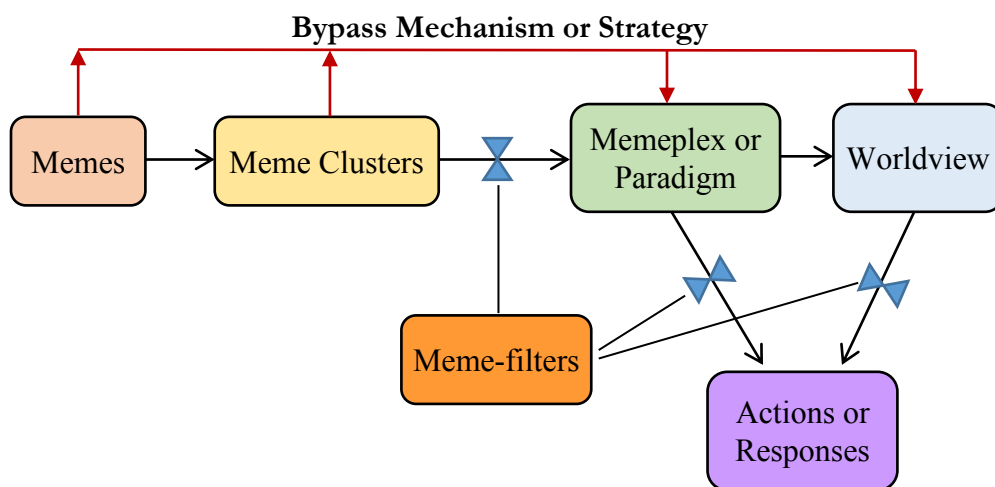


Figure 2-4: Employing bypass mechanisms or strategies can circumvent the meme-filters, and these mechanisms greatly increase the chances of incoming memes being assimilated or incorporated into an individual’s memeplex or their worldview, and thus being propagated to others to multiply in the community or society meme-pool. Many rhetorical strategies function as filter-bypass mechanisms. See the glossary at the end of this document for examples of these specific bypass mechanisms.

These bypass mechanisms allow foreign or even hostile memes to circumvent the active meme-filters of a receiver, and thus gain a foothold in the memetic hierarchy of their new host. The art and science of rhetoric is largely a set of strategies for bypassing the meme-filters of receivers with carefully crafted statements that link favoured or cherished memes and concepts with the ‘payload’ memes, thus persuading the receiver to accept the new memes into their established memeplex or worldview. This is how converts and new disciples are made. This is also how good pedagogy works. It is also why focus groups are used to craft and test commercial advertising, or political messaging.

For eugenicists acting as evangelists for their new secular religion, various rhetorical tactics and pedagogical strategies were employed to convince the progressive public to learn about and apply the scientific and moral principles of eugenics into their daily lives, and then enlist the new converts as political allies in the greater struggle. These rhetorical tactics and pedagogical strategies were also tailored to particular audiences or demographic groups. People in rural farm communities might be more susceptible to analogies to seed selection or animal breeding. Urban audiences might be more receptive to messages about the ‘old-stock’ WASP ‘thoroughbreds’ who built the nation and the pedigrees of America’s ‘*Who’s Who*,’ contrasted with the suspect heredity of the huddled-masses that formed the bulk of the ‘New Immigrants.’ For women, thematic issues like contraception might lead to greater involvement in the eugenics movement, while issues like immigration restriction or racial segregation might be more effective to convert male novices into ‘eugenic disciples.’

Thus, racial improvement could be accomplished by encouraging superior parents to have larger families (positive eugenics), such as through eugenic allowances for the best and brightest, like college professors or university graduates. Meanwhile, the biologically unfit or racial inferiors could be choked-off through negative eugenics, either by immigration restriction that would prevent undesirables from entering America in the first place, or by suppressing their reproduction through targeted contraception or compulsory eugenic sterilization legislation. Eugenics advocates and pedagogues used a combination of positive messaging about the rosy future of a eugenically informed and organized society, along with cautionary tales or outright fear and loathing of dysgenic dystopias, which threatened ‘Nordic race-suicide’ or civilizational collapse.

A full program or curriculum of eugenic education would have to incorporate many strategies, tactics and thematic messages to reach the widest audience of potential converts and assimilate them into the hereditarian worldview and eugenics paradigm, while simultaneously inoculating the body-politic to the rival memes and paradigms of competing worldviews or memeplexes, like euthenics or neo-Lamarckianism. Success would be measured by the number of converts and the intensity of their involvement, growing from a small committed base of zealots to a mainstream movement that would become self-perpetuating and continue to flower and expand through successive generations (see Figure 2-5 on page 58 for an artistic representation of this synergistic memetic bloom).

These rhetorical, pedagogical and memetic learning strategies will be examined in numerous *Today and To-morrow* volumes and *Eugenics* articles in Chapters III and IV and analyzed in more detail in Chapter V. For now though, this presentation will shift to consider the disciplinary scope and methodology employed in this study, as well as a more fulsome preview of my primary sources.

Part 2: Disciplinary Scope, Methodology and Primary Sources Used

This section first discusses the disciplinary scope or the range of pure and applied academic disciplines that were centrally involved in Galton's (1904) applied science of eugenics and its educational efforts. It then segues into a description of the methodology used in this study, and how I came to select the two main primary sources for detailed study: the American Eugenics Society's journal *Eugenics* (1928-1931), and the *To-day and To-morrow* series of popular books, published in both Britain and America in the 1920s and early 1930s.

As previously stated in the opening chapter, the applied science of eugenics was one of the most complex and far-reaching scientific paradigms of the Modern-era, approaching the conceptual level of a worldview (*Weltanschauung*). Eugenics and its educational efforts had deep roots in a wide variety of pure and applied scientific and social-science disciplines, as well as such foundational humanities as history, biography and ethnography, philosophy, religion and politics. One of the best expressions or visual representations of this disciplinary complexity and diversity was as the so-called Eugenics Tree, which was developed for the 2nd International Congress on Eugenics, held in New York City in 1921 (see Chapter IV for details on this conference and its principals). Figure 2-5 on the next page illustrates one version of this disciplinary *mélange*, in which each discipline or field of study served as an academic niche, synergistically combining into a harmonious whole that is much more than the sum of its components, like a metaphorical Garden of Eden for scientific progress.

While few academics in these fields today would be thrilled to see their area as being complicit in the eugenics movement, this is an inconvenient truth that must be faced by anyone who wishes to truly understand the movement and the key people involved. That so many latter-day disciples of these disciplines now offer critiques and condemnations of the eugenics movement is another sign of the memetic malleability and political underpinnings of many scientific and social-science paradigms. Others (e.g., Gardner, 1972) responded by censoring the involvement of prominent eugenicists from the official histories of their disciplines, or simply omit their involvement in the eugenics movement when they cannot be ignored entirely.

Even if devotees cannot see the political and social biases in the current state of their discipline, comparing the Modernist hereditarian paradigm of eugenics with their post-Modern successors makes their socio-political agendas more evident. When one examines the paradigms and operant worldviews of those experts who once promoted eugenics as a rational system for organizing society, these biases become obvious, and even objectionable to would-be deniers or revisionists today who wish to defend their discipline from its 'barbaric' memetic ancestor.

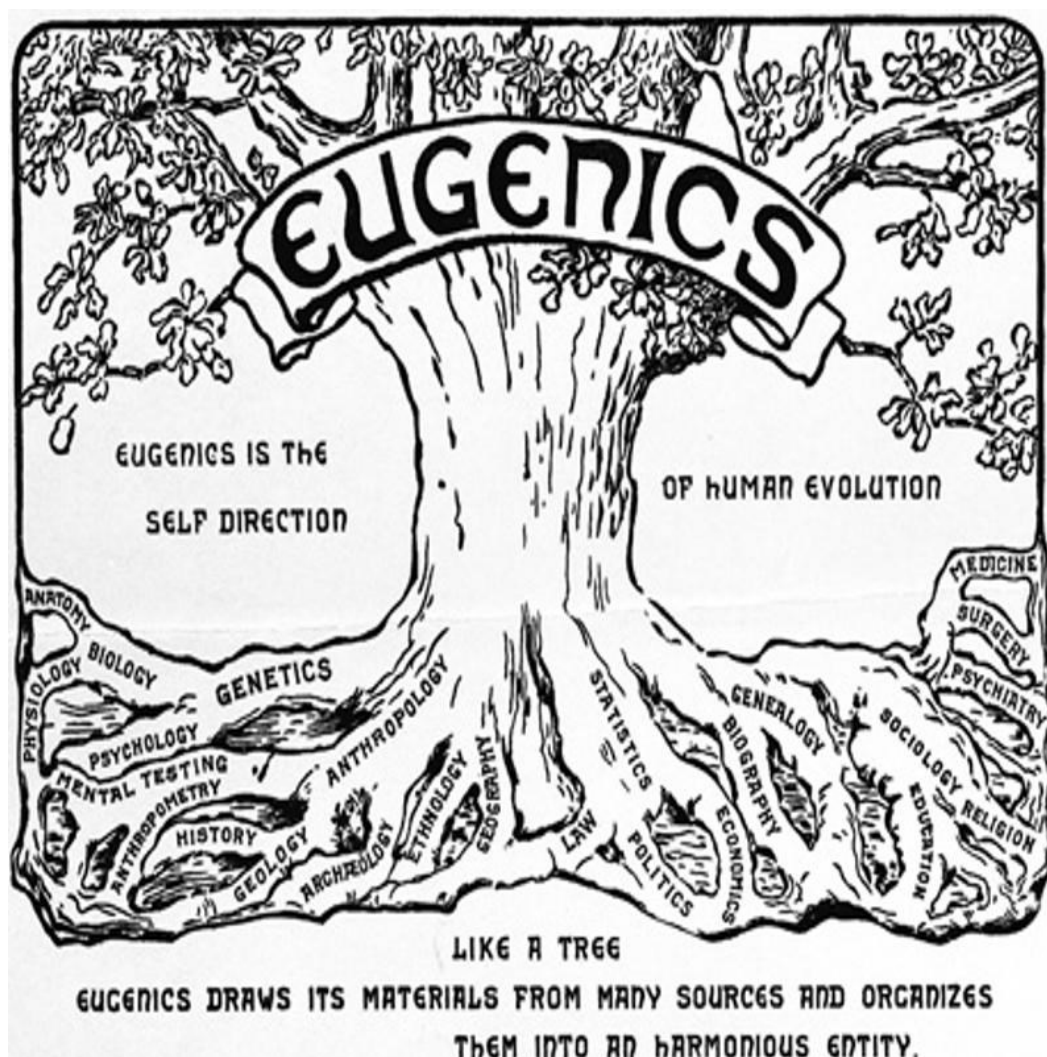


Figure 2-5: A representation of the ‘Eugenics Tree’ circa 1921, showing the myriad component disciplines, professions and subject areas that were to combine to form a harmonious amalgam for the self-direction of human evolution and societal progress. This amalgamation reached its zenith during the 1930s, when the Nazi regime proclaimed eugenics and race-hygiene State Sciences, and established advanced research institutes for their study and application, as part of the renowned Kaiser Wilhelm Institutes. A few of these disciplines, like human geography and educational psychology, were just being accreted to academia during the time that eugenics was ascendant, and many of the seminal figures in their development were ardent apostles of eugenics. Also see my religious translation of the Eugenics Tree in the ‘Eugenics and the Church’ section of Appendix IV.

This memetic-drift or evolution of the prevalent paradigms (and the larger worldviews they fit into) of academic disciplines was echoed in the revolutionary treatise by science historian and philosopher Thomas Kuhn in his seminal *The Structure of Scientific Revolutions* (1962). Although Kuhn’s primary emphasis was on the physical sciences, especially the successive shifts in physics from Aristotelian to Newtonian to Einsteinian paradigms, it has been the social-sciences that have shown

the greatest affinity for Kuhn's notions of radical changes in scientific paradigms. The post-Modern turn of many social-science disciplines and related cultural phenomenon (such as feminism, human rights, etc.) from their Modernist antecedents that embraced eugenics and even Nordic supremacy was a dramatic change. Sometimes even modest generational shifts are imbued with the same revolutionary spirit of sweeping change by the architects of the ascendant paradigm or theory, while the devotees of discredited interpretations are left to commiserate with a declining base of believers.

In the same way that an informed eugenicist, educator or academic working in these fields in the Interwar period (and well into the 1940s in Germany) had to have a basic interdisciplinary understanding of the key fields involved, it stands to reason that today's scholars and interested educators should be similarly equipped. As a young science teacher with an undergraduate degree in general science and a bachelor of education, I would have been woefully underequipped to begin this research project. Although I could have easily demonstrated simple Punnett-square crosses for eugenic or dysgenic traits, or understood the simple statistical analyses employed in popular civic-biology or eugenics texts, I would not have had the wealth of historical, philosophical, or cultural-political understanding necessary for deeper understanding. My formal education and personal growth since those bygone days as an undergraduate and novice science teacher has been equally transformational as the shift from the 'mechanical universe' of Newtonian physics to the 'weird science' of Quantum Mechanics and Relativity, explored by Thomas Kuhn in the year of my birth. As part of an Education Diploma, course-based Master's program, and now doctoral study, I have explored many of these disciplinary bases and the interdisciplinary fields that unite and help inform and understand them. My senior undergraduate and graduate coursework in these component subject disciplines include anthropology, biology (ecology), history, human geography, philosophy and sociology. In addition, numerous courses in Science, Technology and Society (STS) studies, like history of science and technology, anthropology and philosophy of science have radically expanded my understanding of the structures of science and its changing and conflicting paradigms.

Finally, my own study and growing understanding of memetics has provided me the conceptual model that enables me to explain these changes in paradigms and theories, in a better way than any discrete theory that has ever been proffered to me, when they were explicitly mentioned at all.

Exploring the Two Main Primary Sources used in this Study

This study into organized eugenics and its educational efforts and programs marks my first extensive experience in using primary historical sources as the main source of information. To be sure, my previous research papers and projects made use of period journal articles and books, but in the past

my research has always relied on a preponderance of secondary sources, where someone else already has synthesized, analyzed and interpreted the primary historical sources. While researching recent secondary sources can be just as challenging and useful as examining primary documents from the historical period in question, relying on primary sources from several generations ago presents additional challenges to a serious scholar or researcher.

One of the most obvious challenges for historical research in situations such as I faced here is the changing scientific and social paradigms that a scholar must navigate, both in terms of reading and interpreting the original Modernist sources if one is not familiar with the operant paradigms and worldview of the source author(s), and even more so in applying much more recent theoretical lenses or explanatory paradigms to a period where these theories or paradigms did not exist. If the researcher has never delved deeply into the operant paradigms and worldviews of the subject material, they may develop confused or even ‘incommensurate’ understandings of the material.

For instance, a young post-Modern scholar who is a firm environmentalist or even a naïve neo-Lamarckian may have major conceptual roadblocks understanding older historical concepts like race, Nordicism, or immigration restriction legislation based on 19th Century racial anthropology that parsed Caucasians into numerous sub-races or ethnic groups that are no longer recognized or used anymore. Using similarly motivated or situated post-Modern theories to analyze or explain these outdated concepts from the Progressive-era may also be fraught with problems. While one can certainly critique another paradigm or historical worldview using incompatible paradigms or a diametrically opposed standpoint, it may not be the most useful approach to real understanding of that historical paradigm or worldview. Part of this problem is related to the protective memetic filters (as discussed in previous section and illustrated in Figures 2-1 and 2-4) that are a part of any complex memplex or paradigm. These filters block foreign or hostile incoming memes or meme-clusters from being assimilated into one’s own interpretive framework or overall worldview. Marxist (as revealed by Pollock, 2006) or post-Modern (Shraner, 2009) critiques relying on decidedly environmentalist or even neo-Lamarckian paradigms can become dismissive, moralistic commentaries of the historical material. While such an exercise may still have merit in understanding the incompatible worldviews or the limits of a particular theory or analytical lens, it is still less than ideal for deeper understanding of the historical events and views, not to mention the ideals and motivations of the historical subjects in question.

In a case such as this, a scholar or researcher needs a flexible theoretical lens that is capable of faithfully focusing on the historical subjects and resolving their ideas and visions without the foggy blur of ideological myopia or enmity. For this study, memetics is a particularly viable option for

analysis and understanding of the subject material and principals involved. Memetics bridges the conceptual divide between the hereditarian and environmentalist worldviews, which also deeply influenced the cultural-temporal gulf between Modernist and post-Modern paradigms in the social-sciences. A representation of the hereditarian-environmental spectrum is shown in Figure 2-6 below, which expands on Figure 2-2 from earlier in this chapter. Because memetics was conceived as a cultural analogue to biological heredity and neo-Darwinian evolution of species, it is not bound by either end of the genetic-environmental divide, and may be used to explain both, as well as understanding the larger worldviews that these memeplexes fit into.

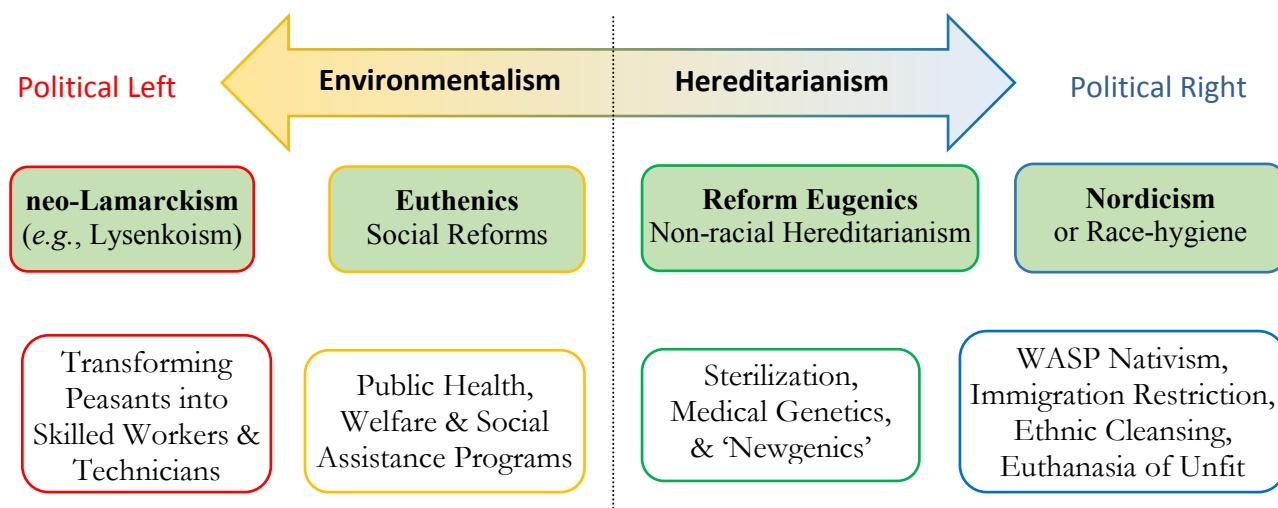


Figure 2-6: The hereditarian-environmentalist memetic spectrum with the four main memeplexes (top row of boxes), along with some typical 'memotypic expressions' (memetic analogue of phenotype) in bottom row, resulting from each ideological allele. These four main paradigms along this spectrum are elucidated further in Chapters III and IV, and compared/contrasted in Chapter V.

Although all four of the memeplexes in the top row of boxes in Figure 2-6 can be lumped under the banner of 'Darwinism,' only the two on the right can be considered part of the strict hereditarian 'neo-Darwinism' paradigm that is still in use by biological scientists today. While euthenics is still a popular memeplex today, especially for post-Modern social-scientists, the far-left paradigm of neo-Lamarckianism is now one of Richard Dawkins' 'doomed rivals' (Dawkins, 1986) that lost the memetic war for disciples, despite a temporary victory in Stalin's 'Science Wars' (Pollock, 2006), and with brief alternate expressions in Maoist China and the Khmer Rouge regime in Cambodia. While these identified graduations or variations along the spectrum or continuum are not the only de facto 'memetic speciations' that have occurred, they are the main historical cases dealt with in the subsequent chapters of this study. In what follows, I provide an overview of the potlatch of memetic offerings served-up by this study's two primary sources.

The *To-day and To-morrow* series as a Memetic Smorgasbord for Today's Scholars

The flexibility and versatility of memetics was especially useful for studying the *To-day and To-morrow* series, which is the focus of Chapter III and Appendix III. This mostly British series featured many individual volumes from across the Interwar-era's philosophical spectrum or meme-pool: some espousing eugenics (e.g., Schiller, 1924; Haire, 1928), some euthenics (Russell, 1924; Russell, 1925), one that advocated neo-Lamarckianism (Brain, 1927), and even one that tried to resuscitate neo-Vitalism for the 20th Century (MacFie, 1928). Within these disparate paradigms and worldviews there were also more subtle distinctions, or combinations of diverse standpoints depending on specific personal circumstances, location or time period. For instance, one of the *To-day and To-morrow* authors (George S. Godwin) wrote two volumes for the series, one while living in Western Canada, and one after returning to the metropole of London. As will be detailed in that section of Chapter III devoted to Godwin's two volumes, Godwin underwent a significant memetic transformation, almost like a chameleon changing its outward appearance to fit its new physical surroundings.

The volumes of the *To-day and To-morrow* series (1923-31) selected fell into two main categories. Most of the series titles included in this study were chosen for their explicit or implicit eugenic content. Although none of the volumes of the series were strictly about eugenics, at least not in their main titles or promotional descriptions, over a dozen of the most influential volumes in the series dealt with eugenics in part, or at least some key aspect(s) of the eugenic-hereditarian worldview.

In the initial offering by J. B. S. Haldane, *Daedalus* (1923), eugenics was seen as a viable, rational, albeit temporary expedient for improving mankind and modern society, which would eventually be eclipsed by more advanced technologies (like ectogenesis and selective artificial insemination) that would target desirable traits and rely on only superior men and women as genetic parents. F. C. S. Schiller's *Tantalus* (1924) dealt with the problem of regressive degeneration (or de-evolution) of civilized humanity, due to modern creature comforts and modern medicine preserving the unfit that would have perished in the bitter struggle for survival of earlier ages. C. P. Blacker's *Birth Control and the State* (1926) advocated for State-funded contraception advice and technologies, and defined the role of the State in offering maternal health and wellness campaigns for the betterment of society. Sir Arthur Keith's volume, *Ethnos* (1931), one of the last in the series, dealt with racial classification schemes, including a watered-down description of Nordic theory from Continental anthropology. Haldane's *Daedalus* was the natural choice to begin with, but any of these other titles listed in this paragraph would also have been valid choices for this study. The titles explored in Chapter III are good representations of the hereditarian-side of the conceptual divide, with American biologist H. S. Jennings' *Prometheus* (1925) being the only title that really attempted to bridge the conceptual divide.

In contrast to those series titles that advocated for eugenic schemes, other volumes were explicitly opposed to the hereditarian worldview. Several of these are reviewed in Appendix III, and these titles serve to illustrate the full memetic diversity of the Interwar British meme-pool. These alternate views include the neo-Lamarckian *Galatea* (1927), an early-wave-Feminist's euthenic vision in Dora Russell's *Hypatia* (1925), and a belated ode to neo-Vitalism in R. C. Macfie's *Metanthropos* (1928). Still other titles, like the Chauvinistic, anti-Feminist rant of A. M. Ludovici's *Lysistrata* (1925), rhetorically played both sides of the hereditarian-environmentalist schism, alternating between preaching ultra-conservative eugenic hellfire and predicting rapid neo-Lamarckian degeneration, due to the mortal sins of radical militant Feminism. H. S. Jennings' *Prometheus* (1925) as featured in Chapter III, actually tried to bridge the gulf between the two rival camps, and this work is now considered one of the first attempts at reforming eugenics (Barkan, 1992).

These selected titles, espousing different meme-clusters, paradigms and worldviews, collectively serve as a curated collection of the prevailing viewpoints existing in the meme-pool of the British intelligentsia, or at least those viewpoints deemed interesting and saleable to the progressive middle-class of the time. Together with the two travelogues describing America to their British readers that are considered in Chapter V (*Atlantis* and *Midas*), the series titles reviewed here give the reader a fleshed-out, personalized panorama of the British memetic situation in the 1920s, and the series author's personal predictions and projections for the next century or so. Although almost none of their bold, broad predictions occurred exactly the way the authors prophesied, they nearly all found fertile memetic soil somewhere during the 20th Century and thus played a part in *our* history. The specific reasons for selecting each reviewed volume will be discussed further in Chapter III, or in Appendix III. Their place in the memetic kaleidoscope of the series will be analyzed in Chapter V. From an ecological standpoint, these disparate views represent a rich memetic ecosystem, in which no competing ideology or worldview was powerful enough to establish a dominant hegemony.

American *Eugenics* as an Incipient Memetic Monoculture

In the case of the American Eugenics Society's (AES) official journal and popular magazine *Eugenics: a Journal of Race Betterment* (1928-31), featured in Chapter IV and Appendix IV, using memetics as the theoretical lens allows one to differentiate between the major factions in the Interwar-era American eugenics movement. 'Old-stock' Nordacists (like Madison Grant and Henry Osborn) who founded the American movement and shepherded it through its initial slow-growth phase were gradually replaced by latter-day eugenic disciples who favoured 'Reform Eugenics' (Kevles, 1985), which minimized the Nordacist agenda and survived banishment as an institutional practice into the 1970s.

The ideological flexibility and responsiveness of memetics to finer gradations in the hereditarian-environmentalist spectrum and its independence from those same ideological limitations is one of the most compelling reasons for choosing memetics for this study. If ‘Selfish Memes,’ like ‘Selfish Genes’ (Dawkins, 1976) are amoral, any theory or paradigm used to explore and analyze anything so controversial and polarizing as eugenics and race-hygiene should also be agnostic and ideologically independent, but yet responsive to ideological saltations or mutations.

The sections of Chapter IV and Appendix IV explore the ‘memetic monoculture’ espoused by the *American Eugenics Society* (AES), like a progressive-era version of ‘Make America Great Again.’ Chapter segments correspond to the regular departments of the journal, including Popular and Formal Education, while others like Immigration and Legislation also served as professional and political education for the committed base. Each thematic grouping considers numerous columns, editorials and feature articles, from the initial ‘Birthday Number’ in October 1928, to the final ‘Hail-Mary pass’ attempt of *People* magazine in April 1931 to expand eugenics from a fringe following into a mainstream ideology. These sections illustrate important aspects of the overall eugenics worldview and the AES’s attempts to inculcate eugenics memes in the progressive public’s consciousness, with each segment having a particular focus on public, formal or professional-political education. Together these sections of Chapter IV and Appendix IV illustrate this comparative hereditarian memetic monoculture, like the assembled images of a composite satellite photo of Mars’ surface.

Unlike the staid and statistically dense *Eugenics Review* of the British *Eugenics Education Society* that was specifically aimed at a small coterie of institutional experts and narrow range of academics, the AES’s *Eugenics: A Journal of Racial Betterment* had a definite popular education thrust and was much more activist and ideological in its approach and tone. All this makes Eugenics much more amenable to a memetic approach and consideration as a primary source for studying eugenics education.

One remarkable aspect of the American Eugenics Movement was the extent to which the AES incorporated religious themes and the paradigm of ‘Progressive Protestantism’ (MacArthur, 1930) in its educational outreach program (detailed in the Eugenics and the Church section of Appendix IV). Although the Interwar British movement had its share of priestly devotees, such as Dean Inge (Professor of Divinity at Cambridge and Rector of St Paul’s Cathedral) who was mentioned in a few volumes of the *To-day and To-morrow* series (e.g. A. M. Ludovici’s *Lysistrata* in Appendix III), the series was generally very secular in its philosophical thrust. By contrast, the AES founded an active Committee for Cooperation with the Clergy, and its annual eugenic sermon contest awarded prizes to ‘Progressive Protestant’ ministers who preached the gospel of eugenics. Some of these winning sermon entries were published in special annual issues of *Eugenics* (see the ‘Eugenics and the Church’

section of Appendix IV). These fascinating artifacts record the memetic intersections between religious and eugenic dogma, with familiar biblical themes re-interpreted for a new age of secular-parochial synergy, scientifically bolstered by genetics and other hereditarian science disciplines.

In addition, other departments of *Eugenics* included willing participants from the clergy, even a few critics who faced-off on pressing social issues against eugenic enthusiasts. This religious fervor was designed to bolster the secular gospel of other ‘eugenic disciples,’ such as science teachers, popular science writers, and even farmers and agricultural instructors who could impart the eugenic wisdom of selective breeding and proper care of livestock to their human flocks. These pastoral pastiches intertwined with the applied science of eugenics make this primary source an even richer memetic motherlode for scholars. The interplay between Biblical and Modernist paradigms is a memetic characteristic of *Eugenics* that is not nearly as widespread or deep in the relevant volumes of *To-day and To-morrow* (which favoured Greek and Roman mythos), and is yet another example of how disparate memes and memplexes can either compete or ‘destructively interfere’ with each other, or enhance and ‘constructively interfere’ to produce a synergistic effect. This will be considered in more detail in the Eugenics and the Church section of Appendix IV and more generally in Chapter V.

Each component or thematic section in Chapter IV and Appendix IV provides ample evidence of the extreme importance the AES placed on eugenics education to spread their biological and moral paradigms, and make their worldview the standard for the American Century. The AES remained optimistic until the very end that their mission was righteous and bound to succeed, if only their eugenic gospel could be spread widely enough. Daniel Kevles, in his updated revision of *In the Name of Eugenics* (1995), discussed the potential revival of eugenics under the banner of ‘Newgenics’ (such as genetic engineering). I have also witnessed the revival of racial-religious memes and a renewed clamour for immigration restriction sweeping across Western democracies from America to Eastern Europe. Although few commentators have invoked the name of eugenics to describe the racial-religious pogroms of the Alt-Right in America or similar far-right Populists in Europe, this study will help to explain this 21st Century memetic echo of the American eugenics movement.

Chapter Summary and Look Ahead to Subsequent Chapters

In Part 1 of this chapter, I introduced memes as an analogy for genes, but in the arena of cultural evolution rather than biological evolution. From the time of the first City States and Empires memes and the ideological paradigms they formed became the primary evolutionary selective agent in human history (Bloom, 1995). The hierarchy of memetics was presented along with the hereditarian-

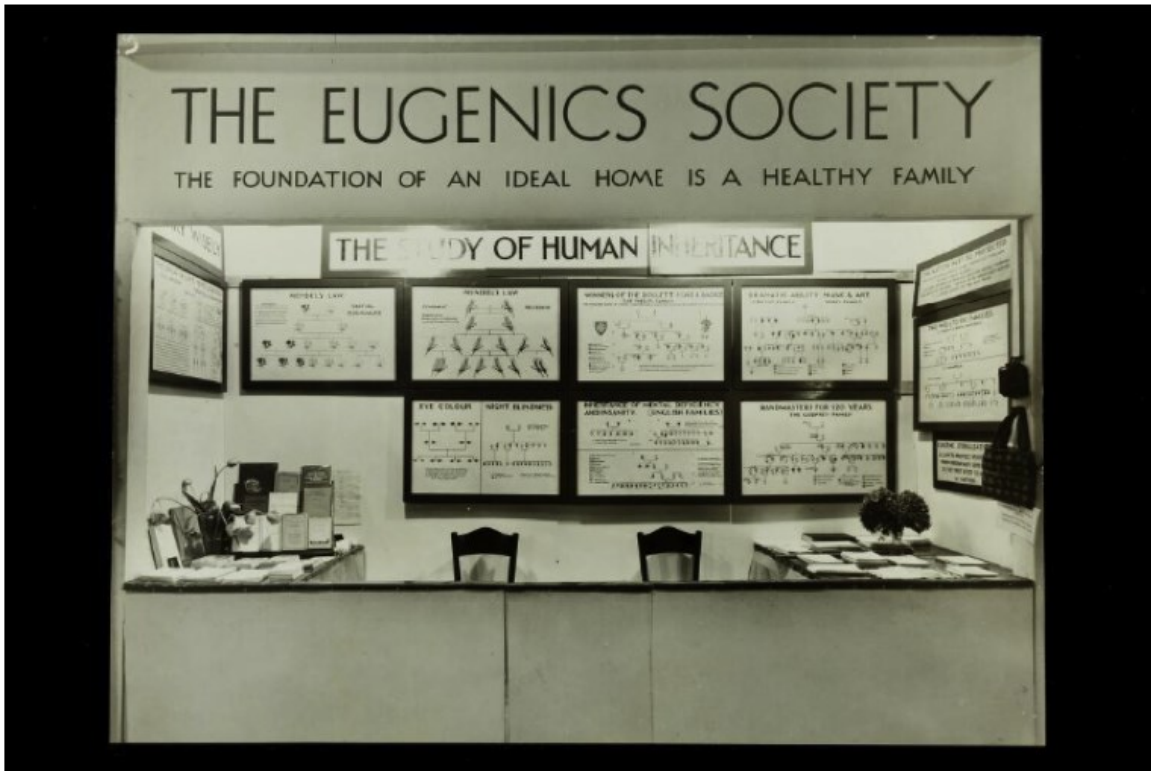
environmental spectrum that arrayed the four main memeplexes or paradigms that will be under consideration throughout the rest of this dissertation.

In addition, I discussed how internal meme-filters work as a protective defense mechanism to block or limit foreign or hostile memes from corrupting or over-riding an individual's (or group's) established paradigm(s) or worldview. However, these meme-filters can be penetrated or bypassed by careful use of persuasive filter-bypass mechanisms, as deployed by clever rhetorical agents such as politicians or advertisers. From an initial small fringe following in the field of evolutionary biology, memetic theory grew slowly at first, but its spread and influence accelerated with the development and popularization of the World Wide Web. Applications have emerged, such as 'memetic computing' and the use of Internet Troll Farms to influence social media users, or even influence the voters of a decisive election, as is alleged in the 2016 American Presidential Election. It was also my contention that eugenics was a pre-memetic crusade to inculcate Francis Galton's applied science and secular religion in a cadre of devoted disciples, with the goal of growing the early fringe movement to mainstream status, at the memetic level of a large paradigm or partial worldview.

In Part 2 of this chapter, I discussed memetics as a theoretical lens to examine eugenics and its contemporary rivals (euthenics, neo-Lamarckism), and made a case for its utility and applicability in understanding and explaining these competing paradigms. The disciplinary scope of this study and of eugenics specifically was discussed and diagrammed (Figure 2-5). I also gave a more fulsome introduction to the two main primary sources (*To-day & To-morrow* and *Eugenics*), and how individual volumes or thematic sections were selected for coverage in Chapters III and IV and Appendix III and IV. Finally, I presented the hereditarian-environmental spectrum and the four main paradigms along the main spectrum axis (Nordicism, Reform Eugenics, Euthenics and neo-Lamarckism), and introduced some of their primary memotypic expressions (Figure 2-6). A glossary of memetics terms and concepts is provided in Appendix I (pages 365-370), for further clarification and quick reference over the course of the next three chapters. At the very end is a colour-code key for the meme-maps that are interspersed through Chapters III-V.

And now, I will turn to the extensive presentation and analysis of my two main primary sources. First, I examine the selected volumes of the *To-day and To-morrow* series in Chapter III and Appendix III, and then switch to the AES's official journal *Eugenics: A Journal of Race Betterment*, in Chapter IV and Appendix IV. Finally, in Chapter V, my two primary sources will be compared and analyzed, along with contemporary accounts and additional commentary by J. F. C. Fuller (*Atlantis*, 1925) and C. H. Bretherton (*Midas*, 1927), and eugenics will be portrayed as part of a longer historical timeline or memetic evolutionary tree.

Chapter III: Eugenics Memes & Rival Paradigms for Cultural Progress in the *To-day and To-morrow* Series (1923-1931)



Sections in this Chapter:

1. Eugenics Memes and Cultural Themes in the *To-day and To-morrow* Series (Pages 68-78)
2. J. B. S. Haldane's *Daedalus, or Science and the Future* (1923) (Pages 79-105)
and a brief reply from Bertrand Russell's *Icarus* (1924)
3. H. S. Jennings' *Prometheus, or Biology and the Advancement of Man* (1925) (Pages 106-122)
4. G. S. Godwin's *Cain, or the Future of Crime* (1928); (Pages 123-137)
and *Columbia, or the Future of Canada* (1928)
5. Norman Haire's *Hymen, or the Future of Marriage* (1928) (Pages 138-173)

Eugenic Memes & Cultural Themes in the *To-day and To-morrow* Series

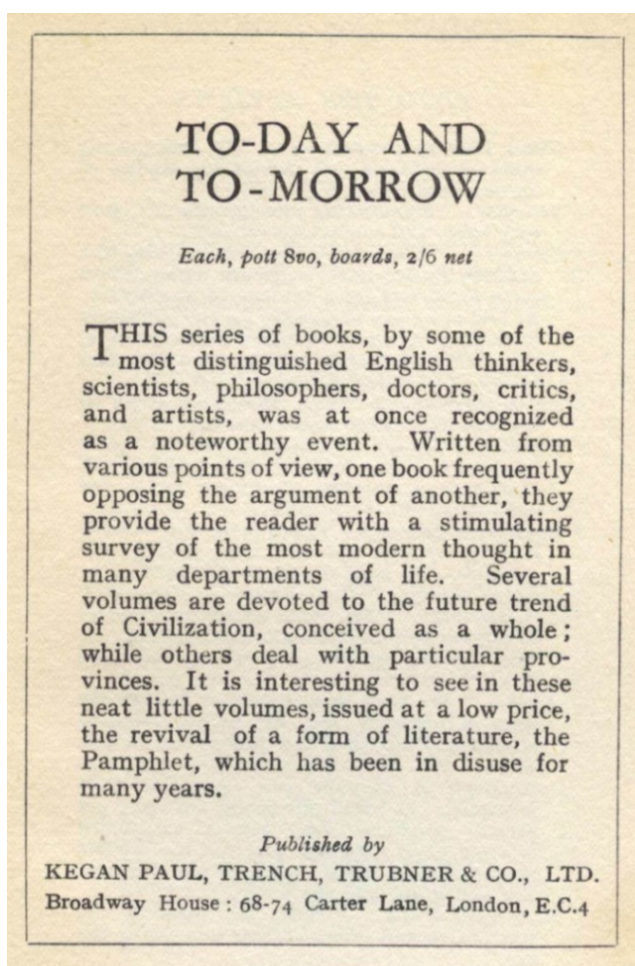
This chapter explores and characterizes the eugenically-active volumes of the *To-day and To-morrow* series of pocketbooks. It begins with a general introduction to the series and the wide range of titles that dealt with eugenics as an explicit subject, or extensively discussed themes that were central or key peripheral issues within the eugenics memplex and hereditarian worldview. As an added bonus, the series also featured a smaller number of titles that offered alternate paradigms for societal progress and human advancement. These included neo-Lamarckian inheritance, neo-Vitalism, and numerous titles that advocated for euthenics and environmental-social reforms as the right and true path to progress. These ‘doomed rivals’ of neo-Darwinism (Dawkins, 1986) are covered in Appendix III. This section presents all the reviewed volumes with a brief description, and places them on the hereditarian-environmentalist continuum introduced in Chapter II (see Figure 3-3 on page 77).

The titles reviewed here and in Appendix III, represent the full hereditarian-environmental spectrum of paradigms popular during the Interwar period, especially in Britain. The volumes included in this chapter tend more towards the hereditarian side of the spectrum, with the notable exceptions of Jennings (1926) and Russell (1924). They illustrate some of the ideological variation within the British eugenics movement of the time, as well as their critics and rivals for memetic dominance in the Interwar *Zeitgeist*. The selected titles reviewed also illustrate that inculcated memplexes are both resistant to rival memes and paradigms, but still susceptible to change over time, or in a markedly different cultural environment in the case of Godwin (1928) and Haire (1928). A few of the volumes, like Ludovici (1925) are ‘memetically schizophrenic,’ in that the author shifts from one memplex to another, to make a rhetorical point. These selected reviews collectively answer part a (and to a lesser extent part b) of my research question, as laid-out in Chapter I (p. 6).

While *To-day and To-morrow* did not have as much of an overt educational or pedagogical mission as the AES journal *Eugenics*, it was nonetheless a milestone in popular science education in Britain (Bowler, 2009). It was one of the first commercial book series to target the progressive middle and professional classes, by employing top-flight academic authors and recognized experts in their field. Unlike the more sensational pulp-science or fantastical-technology serials and magazines that filled the lower-end of the market, the *To-day and To-morrow* series was aimed at those ‘arm-chair’ philosophers who wanted to broaden and deepen their scientific and cultural understanding of a new world order. This new order, emerging from the staid tradition of the Victorian-era and keen optimism of the Progressive-era, was plagued by the cultural chaos and wholesale dislocation of the Great War and its aftermath. The series reflected this popular anxiety and search for meaning.

General Introduction to the Eugenically Relevant Volumes of the Series

The *To-day and To-morrow* series was inaugurated in 1923, with J. B. S. Haldane's *Daedalus, or Science and the Future*. This title began the tradition of describing the current status of science, technology and society, and forecasting a mostly sunny future. But as the pre-War 'Progressive-era' collided with the post-War 'Age of Anxiety' that future was now clouded by social and technological controversies. This series of small pocketbooks by London publisher Kegan Paul, Trench & Trubner (and published simultaneously in New York by E. P. Dutton) explored these existential controversies. Eugenics played a key role in many general titles in the series, which expanded to just over a hundred volumes by 1931, before succumbing to the Great Depression. See advertising copy and review excerpts in Figure 3-1 below; and series' title listings in Figure 3-2, on the next page.



TO-DAY AND TO-MORROW

FROM THE REVIEWS

Times Literary Supplement: "An entertaining series of vivacious and stimulating studies of modern tendencies."

Spectator: "Scintillating monographs . . . that very lively and courageous series."

Observer: "There seems no reason why the brilliant To-day and To-morrow Series should come to an end for a century of to-morrows. At first it seemed impossible for the publishers to keep up the sport through a dozen volumes, but the series already runs to more than two score. A remarkable series . . ."

Daily Telegraph: "This admirable series of essays, provocative and brilliant."

Nation: "We are able to peer into the future by means of that brilliant series [which] will constitute a precious document upon the present time."—*T. S. Eliot*.

Manchester Dispatch: "The more one reads of these pamphlets, the more avid becomes the appetite. We hope the list is endless."

Irish Statesman: "Full of lively controversy."

Daily Herald: "This series has given us many monographs of brilliance and discernment. . . . The stylistic excellencies of this provocative series."

Field: "We have long desired to express the deep admiration felt by every thinking scholar and worker at the present day for this series. We must pay tribute to the high standard of thought and expression they maintain. As small gift-books, austere yet prettily produced, they remain unequalled of their kind. We can give but the briefest suggestions of their value to the student, the politician, and the voter. . . ."

New York World: "Holds the palm in the speculative and interpretative thought of the age."

Figure 3-1: Advertising copy and promotional reviews for the *To-day and To-morrow* book-series.³²

³² This was only one of a number of book series in the Interwar period aimed at the self-improvement or popular education market. It was one of the more innovative and 'high-end' examples, aimed at educated readers with sufficient financial means to afford the hard-cover, high quality booklets, and who were interested in reading about the latest science, technologies and societal controversies from first-rate authors, rather than mere popularizers or pulp-journalists. See Bowler, *Science for All* (2009), for a detailed survey of other period series and magazines.

Most of the titles for the individual volumes (see Figure 3-2 below) evoked apropos Greek or Roman heroes, or other mythological figures for the topic at hand, such as *Daedalus*, *Icarus*, *Tantalus*, *Midas*, etc. They shared the common formula of describing the present situation (and usually the past that led to it), and then forecasting the future for the next century or so. Thus many books are prophesying what is now 'our' present-day or near-future, at their maximum long-range forecast. This is one of the truly fascinating aspects of the books in the *To-day and To-morrow* series, much like Sci-Fi fans now appraising the prophetic accuracy, or failed fantasy, of classic 20th Century science fiction (for instance the prophetic works of Sir Arthur C. Clarke), compared to the actual state of these affairs as seen from our early-21st Century vantage-point of hindsight.

CLASSIFIED INDEX		CLASSIFIED INDEX	
GENERAL		SOCIETY AND THE STATE	
Daedalus, or Science and the Future. J. B. S. Haldane	PAGE 5	Archon, or the Future of Government. Hamilton Fyfe	PAGE 13
Icarus, or the Future of Science. Bertrand Russell	5	Cain, or the Future of Crime. George Godwin	15
Tantalus, or the Future of Man. F. C. S. Schiller	5	Autolykus, or the Future of Miscreant Youth. R. G. Gordon	17
The World, the Flesh and the Devil. J. D. Bernal	18	Cato, or the Future of Censorship. William Seagle	19
Quo Vadimus? Glimpses of the Future. E. E. Fournier D'Albe	6	Lycurgus, or the Future of Law. E. S. P. Haynes	8
Socrates, or the Emancipation of Mankind. H. F. Carlill	12	Stentor, or the Press of To-Day and To-Morrow. D. Ockham	12
What I Believe. Bertrand Russell	5	Nuntius, or Advertising and its Future. Gilbert Russell	9
Sibylla, or the Revival of Prophecy. C. A. Mace	10	Rusticus, or the Future of the Countryside. Martin S. Briggs	13
The Next Chapter. André Maurois	13	Procurtus, or the Future of Education. M. Alderton Pink	10
Kalki, or the Future of Civilization. S. Radhakrishnan	17	Eleutheros, or the Future of the Public Schools. J. F. Roxburgh	20
Diogenes, or the Future of Leisure. C. E. M. Joad	16	Alma Mater, or the Future of the Universities. Julian Hall	17
The Dance of Civa, Life's Unity and Rhythm. Collum	8	Isis, or the Future of Oxford. W. J. K. Diplock	19
MARRIAGE AND MORALS.		Apella, or the Future of the Jews. A Quarterly Reviewer.	11
Hypatia, or Woman and Knowledge. Dora Russell	6	Eutyclus, or the Future of the Pulpit. Winifred Holtby	17
Lysistrata, or Woman's Future and Future Woman. A. M. Ludovici	6	Vicisti Galilaeae? or The Church of England. E. B. Powley	18
Hymen, or the Future of Marriage. Norman Haire	13	GREAT BRITAIN, THE EMPIRE, AND AMERICA	
Thrasymachus, or the Future of Morals. C. E. M. Joad	6	Cassandra, or the Future of the British Empire. F. C. S. Schiller	6
Halcyon, or the Future of Monogamy. Vera Brittain	18	Caledonia, or the Future of the Scots. G. Malcolm Thomson	14
Chronos, or the Future of the Family. Eden Paul	19	Albyn, or Scotland and the Future. C. M. Grieve	14
Birth Control and the State. C. P. Blacker	9	Hibernia, or the Future of Ireland. Bolton C. Waller	15
Romulus, or the Future of the Child. R. T. Lewis	17	Columbia, or the Future of Canada. George Godwin	18
Lares et Penates, or the Home of the Future. H. J. Birnstingl	15	Achates, or Canada in the Empire. W. Eric Harris	17
SCIENCE AND MEDICINE		Shiva, or the Future of India. R. J. Minney	18
Gallo, or the Tyranny of Science. J. W. N. Sullivan	12	Plato's American Republic. J. Douglas Woodruff	10
Archimedes, or the Future of Physics. L. L. Whyte	14	Midas, or the United States and the Future. C. H. Bretherton	9
Eos, or the Wider Aspects of Cosmogony. Sir J. H. Jeans	16	Atlantis, or America and the Future. J. F. C. Fuller	9
Hermes, or the Future of Chemistry. T. W. Jones	14	LANGUAGE AND LITERATURE	
Prometheus, or Biology and the Advancement of Man. H. S. Jennings	7	Pomona, or the Future of English. Basil de Selincourt	11
Galatea, or the Future of Darwinism. W. Russell Brain	7	Breaking Priscian's Head. J. V. T. Greig	15
Apollonius, or the Future of Psychological Research. E. N. Bennett	12	Babel, or the Future of Human Speech. Sir Richard Paget	20
Sisyphus, or the Limits of Psychology. M. Jaeger	19	Lars Porsena, or the Future of Swearing. Robert Graves	11
Metanthropos, or the Future of the Body. R. C. Macfie	16	Delfhos, or the Future of International Language. E. Sylvia Pankhurst	12
Morpheus, or the Future of Sleep. D. F. Fraser-Harris	15	Scheherazade, or the Future of the Novel. John Carruthers	14
The Conquest of Cancer. H. W. S. Wright	7	Deucalion, or the Future of Criticism. Geoffrey West	19
Automaton, or the Future of Mechanical Man. H. S. Hatfield	7	Thamyris, or Is There a Future for Poetry? R. C. Trevelyan	7
INDUSTRY AND THE MACHINE		The Future of Futurism. John Rodker	11
Ouroboros, or the Mechanical Extension of Mankind. G. Garrett	9	Mrs. Fisher, or the Future of Humour. Robert Graves	11
Vulcan, or the Future of Labour. Cecil Chisholm	13	Pons Asinorum, or the Future of Nonsense. George Edinger	18
Typhoeus, or the Future of Socialism. Arthur Shadwell	17	Democritus, or the Future of Laughter. Gerald Gould	19
Hephaestus, or the Soul of the Machine. E. E. Fournier D'Albe	6	ART, ARCHITECTURE, MUSIC, DRAMA, ETC.	
Artifex, or the Future of Craftsmanship. John Gloag	9	Euterpe, or the Future of Art. Lionel R. McColvin	8
Pegasus, or Problems of Transport. J. F. C. Fuller	9	Proteus, or the Future of Intelligence. Vernon Lee	8
Aeolus, or the Future of the Flying Machine. Oliver Stewart	12	Balbus, or the Future of Architecture. Christian Barman	11
Wireless Possibilities. A. M. Low	8	Orpheus, or the Music of the Future. W. J. Turner	10
WAR		Terpander, or Music and the Future. E. J. Dent	10
Janus, or the Conquest of War. William McDougall	13	Eurydice, or the Nature of Opera. Dyneley Hussey	18
Callinicus, a Defence of Chemical Warfare. J. B. S. Haldane	5	Iconoclastes, or the Future of Shakespeare. Hubert Griffith	14
FOOD AND DRINK		Timotheus, or the Future of the Theatre. Bonamy Dobrée	8
Lucullus, or the Food of the Future. Olga Hartley and C. F. Lyle	10	Heraclitus, or the Future of Films. Ernest Betts	16
Bacchus, or the Future of Wine. P. Morton Shand	14	SPORT AND EXPLORATION	
MISCELLANEOUS		Atalanta, or the Future of Sport. G. S. Sandilands	15
Narcissus, an Anatomy of Clothes. Gerald Heard	7	Fortuna, or Chance and Design. Norwood Young	16
Perseus, of Dragons. H. F. Scott Stokes	8	Hanno, or the Future of Exploration. J. L. Mitchell	16

Figure 3-2: A classified index of most of the volumes in the *To-day and To-morrow* series, circa 1930.

Each volume (with a few exceptions) ran to about 100 pages, in small hardcover pocketbooks of 12 by 16 cm. A few contained picture plates or illustrations, but an all-text format was the default.

The Kegan Paul (British) covers were quite cheaply made, but the paper was a thick, high quality stock that has aged well. For some reason this was reversed in the American E. P. Dutton versions, which featured quality cloth covers, but cheaper paper. Scholars should note that the Kegan Paul and E. P. Dutton versions were sometimes paginated differently, if there was a preface or forward, but the page content is identical. Some Dutton versions were published a year or more after their British cousins, and at least two volumes were only published in America (Schraner, 2009).

The authors of the series ranged from philosophers (*e.g.*, Bertrand Russell, *Icarus, or the Future of Science*, 1924) and natural scientists (*e.g.*, Sir Arthur Keith, *Ethnos, or the Problem of Race*, 1931) to medical doctors, social science experts, artists, literary critics (*e.g.*, FCS Schiller, *Tantalus, or the Future of Man*, 1924), and even a few WW I veterans (*e.g.*, Capt. J. B. S. Haldane, Col. J. F. C. Fuller). Although almost all were British, there were a few American and Colonial authors: such as American biologist Herbert Spencer Jennings (*Prometheus, or Biology and the Advancement of Man*, 1925); or briefly-Canadian author George Godwin, son of the famous British architect and builder of the same name (*Cain*, 1928 and *Columbia*, 1928). The academic pedigrees of many of the authors were impressive, with advanced degrees from Oxford and Cambridge being quite common, and several were current professors of august British or American universities. Critics today might pan the lack of ethnic or socio-economic diversity among the authors of this series, or attack their male, Anglo-Saxon Protestant (WASP) privilege. The great majority of authors were male WASPs. Several female authors used pseudonyms, so only modern catalogue listings betray their gender, with notable exceptions like “Mrs. Bertrand Russell” (*Hypatia; or Woman and Knowledge*, 1925 – see review in Appendix III), but even fewer authors were non-White and there were no women of colour.

A distinguishing characteristic of the series is that many volumes reference, critique or answer one or more previous books in the series, either amplifying or refuting other authors in a serial dialectic. Several authors, including Godwin, Haldane, Russell and Schiller contributed two volumes to the series. A few, like Doctors Blacker and Crookshank, and Professor Schiller, were central figures in the *Eugenics Education Society* and/or related British eugenics organizations. In several cases, previous or future *To-day and To-morrow* authors contributed reviews of various titles in the series that were published in contemporary journals. The reviews in this chapter (and those titles relegated to Appendix III) will consider a number of these published critiques, including a few preserved in the archives of *The Eugenics Review*, the official journal of the British *Eugenics Education Society*, established in 1907 (Engs, 2005). This is yet another indication of the importance of this seminal series for today’s scholars of eugenics and cultural evolution, whether they are students of memetics, or disciples of a rival explanatory paradigm or philosophical standpoint.

Eugenics Memes, Cultural Themes and Popular Hot-topics in *To-day and To-morrow*

Eugenics as an explicit or covert theme in the series was very common, except in the more narrowly-themed volumes on completely unrelated topics. A few titles, like C. P. Blacker's *Birth Control and the State* (1925) were devoted to a particular aspect (meme-cluster) of eugenics, while others like Sir Arthur Keith's *Ethnos, or the Problem of Race* (1931) described a particular scientific paradigm (racial anthropology) that informed eugenics. But other author's favoured worldviews were ideological rivals or memetic antagonists to the conventional hereditarian dogma of Western eugenics, like Russell Brain's *Galatea, or the Future of Darwinism* (1927). *Galatea* was a passionate appeal to reconsider the neo-Lamarckianism (a rival paradigm to hereditarian eugenics) as a model for human improvement, but without the Marxist-Leninist rhetoric of Trofim Lysenko and his disciples in the Soviet Academy of Sciences. Other authors were advocates for eugenics and radical environmental reforms, including the two Russell's. The series featured a panoply of paradigms and worldviews spanning the ideological spectrum (see Figure 2-2 on page 50). Figure 3-3 on page 77 shows my placement of the reviewed titles on the hereditarian-environmentalist spectrum.

A key value of the series as a primary source for this study is its marked memetic diversity.³³ The variety of the conceptual mosaics in the series is an indicator of the great diversity in the meme-pool of that time. London and New York were the ultimate exemplars of the varied meme-pool in the global *Zeitgeist* of the period. The fact that many of the revolutionary predictions by series authors were realized (even if in unintentional ways and in unforeseen places) mere decades later, is another sign of the memetic value of the series to today's scholars.

These diverse memeplexes and worldviews were selected in dramatic ways around the world: in Stalin's USSR (Lysenkoism, the Holodomor), Hitler's Germany (Euthanasia and the Holocaust), Mao's China (the Great Leap Forward and Cultural Revolution), and in the anti-urban, anti-industrial agrarian revolution of Pol Pot's Khmer Rouge. Under these totalitarian regimes, memes could be centrally promoted and 'artificially selected' as State dogma or sciences, where they were the basis for legislation and policy. Just as Darwin used artificial selection in the selective-breeding programs of domestic animals (*e.g.*, 'pigeon fanciers') as a rapid time-lapse analogy for natural selection in the wild, the diverse memeplexes in the series required only a firm directing hand and a critical mass of disciples to reach mainstream status and be expressed in the memetic phenotypical products (memotype) of these host populations or meme-vectors (*aka* meme-vehicles).

³³ This heterogeneity of paradigms stands in direct contrast to the narrow, carefully curated and purposeful memetic selection in the AES journal *Eugenics*, which forms the basis for Chapter IV.

However, even in those *To-day and To-morrow* titles whose subject was not an obvious breeding ground for eugenic discussions, the content often included hot topics from the eugenics movement, such as class, gender, sexual morality and vice, race, and ideals for fitter families for the future. A perfect nondescript example is *Hymen; or the Future of Marriage* (1928), by Dr. Norman Haire, M.D. Although the word eugenics is never explicitly mentioned, the book is rife with draconian eugenic advocacy, like compulsory sterilization and even euthanasia of the unfit or congenitally diseased that figured so prominently in the race-hygiene pogroms of the Third Reich. Other futuristic trends were promoted as a rational, scientific alternative to the hit and miss eugenic potential of conventional marriage, including profuse reproduction by specialized ‘breeder’ women, artificial insemination by genetically superior men,³⁴ as well as Haldane’s concept of ectogenesis, or the use of surrogate animal-mothers carrying a human foetus.

The Interwar period is sometimes proposed as the beginning of the end for the scientific and academic support for negative eugenics (Barkan, 1992), but this series largely belies this assertion, with a few notable exceptions. Even then, other alternatives, like ectogenesis in Haldane’s *Daedalus* (1923), or voluntary use of free contraception provided by the State in Blacker (1926), indicate an underlying support for the goals of eugenics; even if legislated compulsory measures were considered restrictive or too draconian for widespread acceptance. All told, nearly half of the general-topic volumes in the series discuss eugenic hot topics or related issues (see the listing of the reviewed volumes and their placement of the hereditarian-environmentalist spectrum on the next three pages).

Very few of the volumes in the series were as racially-charged as popular American or German texts of the same period, with one significant exception. F. G. Crookshank’s, *The Mongol in our Midst* (1924), is also notable for its later expansion to a full-length book (1931) as well as having a German translation (1928). It was also one of the most profusely illustrated titles, with numerous graphic picture plates of ‘racial-types’ included. The author also boldly equated the races of mankind with their postulated ape ancestors: Negroes from Gorillas, Semites from Chimpanzees, Orientals from Orangutans. The lone exception to this ape-ancestor revelation was the Nordics (Anglo-Saxons), who were assumed to be ‘all-human’ with no designated primate forebear (see especially Plate XXII on page 436 of the expanded and rewritten third edition). See the review of Crookshank’s *Mongol in our Midst* in Appendix III for a detailed look at this atypically Nordacist volume in the series.

³⁴ This scheme was later taken up by Nazi Germany in the SS *Lebensborn Project* and then in California in the late 1960s by Herman J. Muller’s *Repository of Germinal Choice* (see review of *Galatea* (1927) in Appendix III)

Volumes of the *To-day and To-morrow* series reviewed for this study:

Listed here, in chronological order of publication, are the individual volumes of the series reviewed as part of my research. Most reviews are extensive with numerous quotes, commentary and analysis. A few have photos or other illustrations scanned from the original books. Where possible, excerpts of contemporary critical reviews from period magazines and journals have been included to illustrate the work's perceived merit at the time of publication. Most of these titles were selected for their eugenic content, especially for those six covered in Chapter III. The remaining volumes included in Appendix III serve as representatives of the wider spectrum of rhetorical stances with respect to eugenics, from ardent support of hardline hereditarian eugenics, to cautious criticism of racial eugenics, to flat-out rejection of eugenics as a genuine science and valid social policy, except in the most dire cases of mental or physical defect. None of relevant series authors explicitly rejected eugenics for the obviously disabled or unfit, though several, such as the overtly neo-Lamarckian *Galatea* (Brain, 1927) considered other methods of human improvement to be more promising. The reviewed titles are chronologically listed below, along with their location, either in Chapter III or Appendix III. Refer to Figure 3-3 following this list for each title's placement on the hereditarian-environmentalist spectrum, as first introduced in Chapter II (Figures 2-2 and 2-6).

Haldane, J. B. S. (1923). *Daedalus, or Science and the Future.*

-Covered in the next section of Chapter III. The most commercially successful and oft-cited volume. In addition to being the series debut and the series best-seller, *Daedalus* was selected for its prophetic forecast of the development of a new suite of futuristic human reproductive technologies (genius sperm banks, ectogenesis of superior human babies, etc.). These future developments would consign contemporary eugenics to being a short-lived 'necessary evil' milestone on the longer road to a scientifically induced utopia based on genetic expertise and futuristic technologies that would eliminate the need for contentious negative eugenics programs like the sterilization of 'defectives.' By glossing over the controversial methods and assumptions of negative eugenics and offering a rosy picture of enlightened 'Newgenics,' Haldane managed to minimize the fear and loathing about hardline eugenics in the 1920s for a utopian paradise of scientific-social enlightenment, much as Star Trek did for a later generation of scientifically inclined futurists. By ignoring much of the pessimism of the Age of Anxiety (unlike Ludovici, Schiller, Haire, and others, Haldane captured the imagination of progressives looking to turn the page on the ugliness of post-WW I Britain.

Crookshank, F. G. (1924, 1931). *The Mongol in our Midst.*

-Dr. Crookshank theorizes a racial explanation for Mongolism, and explores the primatological origins of the main human races from the great apes, except for Nordics. It is the most racially explicit and comes closest to the Nordacist paradigm of American eugenics. A greatly expanded 3rd edition was published by Kegan Paul in 1931, as well as a German translation in 1928. The review is included in Appendix III. It should be noted that this title lacked the overt advocacy or activism of *Eugenics*, even if the ideas and theories presented are morally reprehensible to many today.

Russell, B. (1924). *Icarus, or the Future of Science.*

- Included as part of the response to Haldane's *Daedalus*. It was panned as being "utter pessimism" and anti-progress by the popular press (see mini-review in Figure 3-3 of the next section). I included excerpts of the full review with the review of *Daedalus* mainly as a euthenic response to the overt hereditarian philosophy espoused by Haldane, and to show that the political left of the British establishment also advocated for radical solutions to the social 'evils' of the 1920s. In Bertrand Russell's case his designated solutions were more draconian than anything Haldane prophesied.

Schiller, F. C. S. (1924). *Tantalus, or the Future of Man.*

- A pessimistic appraisal of the current status of modern 'civilized' man, which forecasted increasing degeneration due to poor breeding and 'devolution' caused by modern medical and euthenic interventions that defeat natural selection and allow physical and moral defects to persist and accumulate in the population, rather than being eliminated. It was primarily selected as an example of the deep pessimism many of the older of eugenicists, occasioned by the proliferation of new technologies and medical interventions. The review is located in Appendix III.

Haldane, J. B. S. (1925). *Callinicus, a Defense of Chemical Warfare.*

- Haldane's second series volume presents a sympathetic case for chemical weapons as a less destructive and more humane and decisive alternative to modern warfare. It was selected as a counterpoint to *Daedalus* for its coverage of the science of war and the use of racial pronouncements by Haldane, which was completely lacking in his debut volume. Included in Appendix III.

Jennings, H. S. (1925). *Prometheus, or Biology and the Advancement of Man.*

- Included in Chapter III. *Prometheus* was later held-up as one of the first scientific attacks on hardline hereditarian eugenics (Barkan, 1992), or an example of 'Reform Eugenics' (Kevles, 1985), despite Jennings continuing approval of eugenics as valid social policy. *Prometheus* was selected for the main document primarily for its balanced coverage and advocacy for both eugenics and the hereditarian worldview, and euthenics and the environmentalist worldview. It was also almost contemporary with the Stalinist neo-Lamarckianism of Lysenko, which famously played out in Stalin's 'Science Wars.'

Ludovici, A. M. (1925). *Lysistrata, or Womans Future and the Future Woman.*

- Ludovici predicted a dystopian future caused by militant feminism provoking the rise of a sort of 'Feminazi elite', leading to an 'androcide' of most, and finally all men; dooming women to biological deterioration as sexless drones and final extinction due to the physical degeneration of women's bodily health and reproductive capacities. It was selected as an extreme counterpoint to the Fabian Socialism of Dora Russell and her first-generation feminist advocacy. Included in Appendix III.

Russell, D. (1925). *Hypatia, or Woman and Knowledge.*

-Dora Russell's (Bertrand's second wife) response to *Lysistrata*, defending feminism and justifying the militant nature of early feminists and suffragettes, as a secular crusade against paternalism and male-domination, as well as being an early manifesto of female sexual liberation. In Appendix III.

Blacker, C. P. (1926). *Birth Control and the State.*

- An impassioned appeal by a British eugenics insider, for provision of universal State-funded contraception to married women for eugenic, euthenic and maternal-welfare reasons. Blacker's volume is representative of a blend of moderate medicalized eugenics and euthenics as public health policy, and fully consistent with mainstream British 'Reform Eugenics.' Included in Appendix III.

Brain, W. R. (1927). *Galatea, or the Future of Darwinism.*

- An exposition of the two main strains of Darwinism that included a non-Marxist attack on genetic determinism and strict hereditarianism. Dr. Brain called for a reappraisal of the efficacy of a naturalistic form neo-Lamarckian inheritance for eugenics-free human improvement. It was selected as the lone series title that overtly supported the Lamarckian paradigm, but without the Marxist tint of the Soviet incarnation of Lysenkoism. Included in Appendix III.

Godwin, G. S. (1928). *Columbia, or the Future of Canada.*

-This volume recounts Godwin's pre-WW I experiences in Western Canada, and included his assessment of the relative value of various human races in the settlement and future progress of the West. It is excerpted in Chapter III, primarily as a contrast to Godwin's other series contribution.

Godwin, G. S. (1928). *Cain, or the Future of Crime.*

-Included in Chapter III. Written after returning to England, *Cain*, unlike *Columbia*, was rife with eugenic brimstone, an unmistakable hereditarian and social-Darwinian bent, and is fully consistent with the class-based bias of British eugenics. The two Godwin titles were included in the main document for the Canadian connection and the rather stark *volte face* exhibited by Godwin as he switched from a racialized Nativism in *Columbia* to the class-based discrimination of 1920s London.

Haire, N. (1928). *Hymen, or the Future of Marriage.*

-Included in Chapter III. Dr. Haire is now hailed as an early marriage counselor and pioneering sexologist, despite his overt support in *Hymen* for draconian eugenics in-line with later Nazi policies. Haire's volume is loaded with historical irony considering his families origin as Polish Jews, and his status as a closeted homosexual at a time when this was strictly taboo. The combination of radically liberal coverage of sex and sex education, with hardline hereditarian policies and pronouncements make this one of the most schizophrenic titles in the series and makes for a fascinating case-study of contrasting memplexes that seem completely incompatible from our historical vantage point today.

MacFie, R. C. (1928). *Metanthropos, or the Body of the Future.*

-Dr. MacFie assessed the current biological and moral status of *Homo sapiens*, and made predictions for the short, medium and long-range time-frames, leading to an advanced race of rational (non-religious) super-beings with greatly enhanced mental faculties and lifespans. It was selected for its quaint advocacy of neo-Vitalism, a now discredited rival paradigm to eugenics and Darwinism, and yet it dealt with many of the same issues and hot topics embedded in eugenics. It is illustrative of how rival scientific paradigms co-exist for some time before 'doomed rivals' (Dawkins, 1998) fall by the wayside of history to become mere curious footnotes. Included in Appendix III.

Keith, A. (1931). *Ethnos; or the Problem of Race from an Anthropological Standpoint.*

- Sir Arthur traced the development of modern man and outlined the evolving racial theories of T. H. Huxley and others. Keith ultimately defended Huxley's later system for dividing mankind into only four races (American Aboriginal, Caucasian, Mongolian and Negro). It was selected for its reformist function in the transition from Continental European Nordacist racial anthropology that parsed Caucasians into many sub-races (with Nordics on top of the heap), to the current practice of dividing mankind into the four main races by skin color and hair texture that is still operative today in hereditarian circles. It does not mention or advocate for eugenics or any ideological rivals. Included in Appendix III.

Placement of the Volumes Reviewed on the Hereditarian-Environmentalist Spectrum

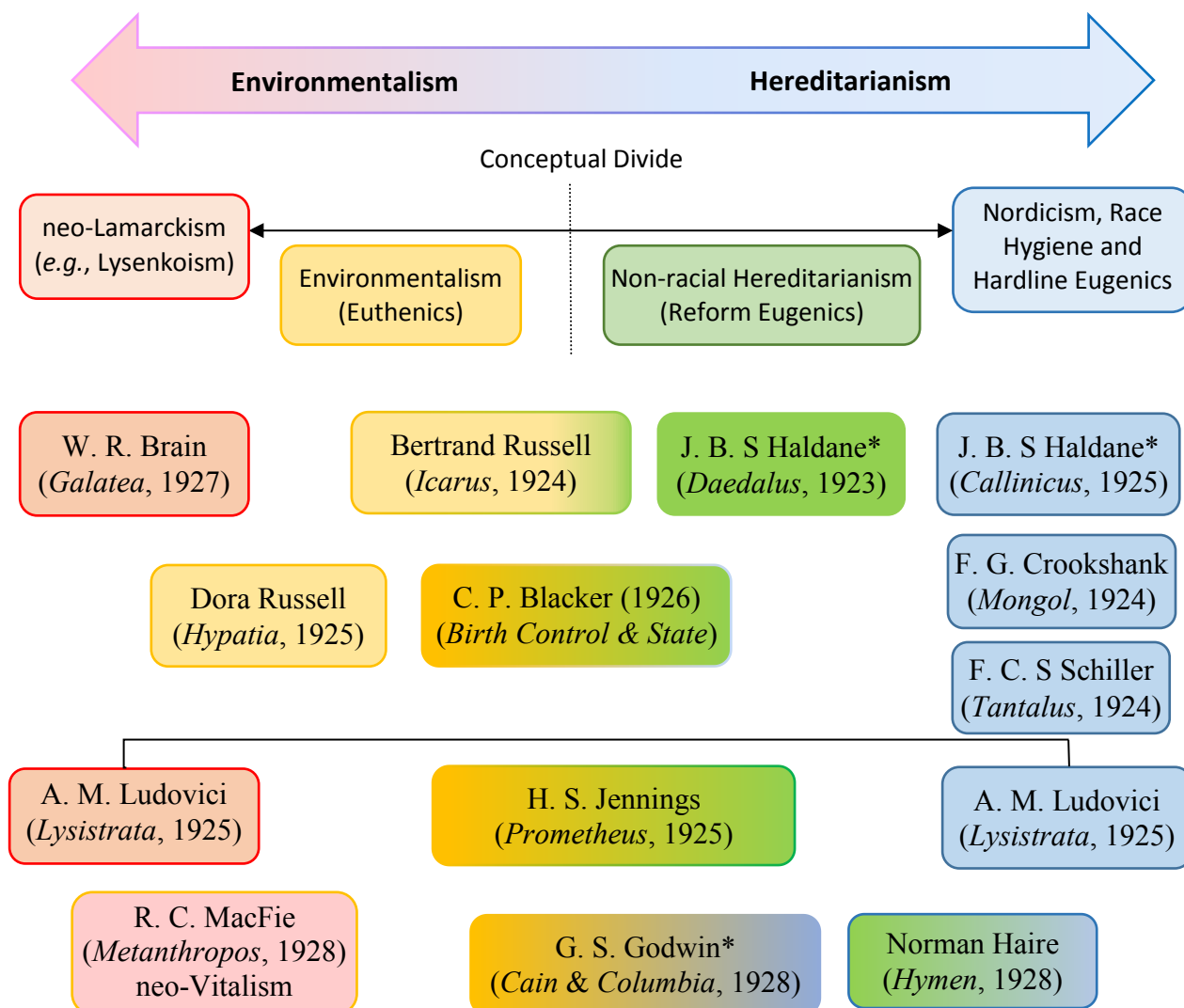


Figure 3-3: My placement of the reviewed volumes of *To-day and To-morrow* on the hereditarian-environmentalist spectrum. Some authors or volumes are difficult to place exactly as they shifted paradigms or models when dealing with different subjects or issues.³⁵ For instance, Ludovici (1925) employed elements of both rapid Lamarckian degeneration and ‘Androcidal gender-hygiene’ in his scathing attack on ‘radical militant Feminism.’ Only H. S. Jennings (1925) rationally and consistently spanned the hereditarian-environmental conceptual divide, while others like Bertrand Russell (1924), C. P. Blacker (1926) and G. S. Godwin (1928) occasionally strayed into one or the other camps on particular issues or in specific cases. Both Godwin* and Haldane* shifted their stances in their twin contributions to the series. Haldane used more overt racial memes in his second contribution to the series (*Callinicus*), while Godwin shifted away from racial memes to class-based eugenics.

³⁵ Note there is no placement here for Sir Arthur Keith’s *Ethnos* (1931). That is because Keith really doesn’t deal with eugenics, although his tacit flirtation with WASP superiority would place him in the Nordacist camp, at least as far as Interwar-era racial anthropology theory fits anywhere on the continuum.

Although *formal* eugenics education in Britain never achieved the popularity it did in America, numerous books in the series played a limited role in *popular* eugenics education to evangelize for the cause, especially among the progressive professionals and burgeoning middle-class the series was targeted towards (Bowler, 2009). British public education reforms after World War I began to include science as a compulsory subject for study, mainly as a response to the perceived importance of science education in Imperial Germany's strong performance in the war (Kohlman, 2013). For older readers, especially those with a 'Classical' secondary education, private reading of popular science books like this would have been one of the primary means of science education, particularly for controversial or unconventional topics like eugenics, contraception or racial characteristics (Bowler, 2009). The series is one of the best repositories of Interwar British eugenics memes meant for popular consumption.³⁶

Some of the inspected books now housed in various University library collections were gifts from local donors, or retired professors; indicating a fairly widespread penetration of the series, even to this provincial backwater (Alberta) of the then-dominant British Empire. The samples inspected for these reviews included local donations to Grande Prairie College, and to the University of Alberta in both Calgary (before it became the U of C) and Edmonton. This should not be surprising, given Alberta's ardent support for eugenics even well-after the series was current (Grekul, 2007).

The remainder of this chapter reviews selected volumes of this seminal series, starting with the series debut by J. B. S. Haldane, the most commercially successful and oft-cited volume in many later additions to the series. It is the natural first milestone on this memetic-eugenic journey to explore the British eugenics memplex, and as a microcosm of the Interwar meme-pool. Those titles previously listed that are not covered in this chapter, are reviewed separately in Appendix III. In addition to the general rationale for the selection of series' volumes described in Chapter II, the specific reason(s) for selecting each title will be explained separately for each volume reviewed, as they appear in Chapter III or in Appendix III. Each review incorporates one or more 'meme-maps' to illustrate the relevant memplex(es), meme-clusters and sample component memes.

While I would have wished to include more of the series volumes that featured alternative paradigms to eugenics or the strict-hereditarian worldview in Chapter III, these memetic rivals will be discussed briefly in those titles that are, and the reader can always refer to the full review(s) in Appendix III for more detail on these 'doomed rivals' to neo-Darwinism, or its memetic alleles.

³⁶ Another indication of the historical and educational importance of the series for scholars of modernity in general and eugenics and eugenics in particular, is the recent republication of most of the series by Routledge (starting in 2009), in which 3-5 of the original volumes are grouped-together thematically into 25 volumes. The entire republished series is available for the very serious price of \$3700 (Schraner, 2009).

The Eugenics and 'Newgenics' of J. B. S. Haldane's *Daedalus, or Science and the Future* in the *To-day and To-morrow* Series

With the debut contribution by British biologist and science popularizer J. B. S. Haldane (1892-1964), *Daedalus, or Science and the Future* (1923), the *To-day and To-morrow* series of popular books began a decade-long tradition of describing the current status of science, technology and/or society, and forecasting a mostly progressive future. Haldane, a future Darwin-award laureate, made numerous contributions to a wide range of biological sciences, particularly as a vital contributor to the Modern Evolutionary Synthesis, unifying Mendelian genetics, biometrics and Darwinian evolution.³⁷ But it was his talent as a prolific popularizer of science that made him famous and a natural choice to kick-off this innovative, speculative series.³⁸ Please refer to the early series advertising copy and selected 'critical' reviews in Figure 3-4 below, and *Daedalus* frontispiece in Figure 3-5 on next page.

The image shows two pages of promotional text for the 'TO-DAY AND TO-MORROW' series. The left page is a framed advertisement listing several books and their authors, with the publisher 'E. P. DUTTON & COMPANY' at the bottom. The right page is a list of 'VOLUMES READY' with critical reviews for 'Daedalus, or Science and the Future' and 'Callinicus, a Defence of Chemical Warfare'.

TO-DAY AND TO-MORROW SERIES

DAEDALUS, or Science and the Future
By J. B. S. Haldane

ICARUS, or The Future of Science
By Bertrand Russell, F.R.S.

THE MONGOL IN OUR MIDST, or Man and His Three Faces
By F. G. Crookshank, M.C.F.R.C.P.

In Preparation

WIRELESS POSSIBILITIES
By Prof. A. M. Low

TANTALUS, or The Future of Man
By F. C. S. Schiller

E. P. DUTTON & COMPANY

TO-DAY AND TO-MORROW

VOLUMES READY

Daedalus, or Science and the Future.
By J. B. S. HALDANE, Reader in Biochemistry, University of Cambridge.
Seventh impression.
"A fascinating and daring little book."
—*Westminster Gazette*. "The essay is brilliant, sparkling with wit and bristling with challenges."
—*British Medical Journal*.
"Predicts the most startling changes."
—*Morning Post*.

Callinicus, a Defence of Chemical Warfare.
By J. B. S. HALDANE.
Second impression.
"Mr. Haldane's brilliant study."
—*Times Leading Article*. "A book to be read by every intelligent adult."
—*Spectator*. "This brilliant little monograph."
—*Daily News*.

Icarus, or the Future of Science.
By BERTRAND RUSSELL, F.R.S. *Fourth impression.*
"Utter pessimism."
—*Observer*. "Mr Russell refuses to believe that the progress of Science must be a boon to mankind."
—*Morning Post*. "A stimulating book, that leaves one not at all discouraged."
—*Daily Herald*.

Figure 3-4: Promotional listing (circa 1925) of some of the first volumes of the *To-day and To-morrow* series, along with selected clips of critical reviews used in the promotion of the series.³⁹

³⁷ An indication of Haldane's long, wide-ranging impact on science and philosophy can be gleaned from the retrospective tributes in the edited volume: *Haldane and Modern Biology* (1969). It features a chapter, "Eugenics Tomorrow" (discussed later) that profiles Haldane's various writings on eugenics, including *Daedalus*.

³⁸ Arthur C. Clarke's chapter in *Haldane* (1969) explicitly mentioned Haldane's gift for popularization of science.

³⁹ Haldane's second volume (*Callinicus*, 1925), defending chemical warfare, did not achieve the same success, thanks to strong public condemnation of the 'Chemist's War' due to anti-German propaganda during the War.

A distinguishing characteristic of the series was that many volumes critiqued or answered previous books in the series, amplifying or refuting the memes of earlier authors. This was particularly true of Haldane's *Daedalus*, which went through eight impressions by the end of the series (see right-side of Figure 3-4, and Figure 3-5 below), though not for *Callinicus* (1925), reviewed in Appendix III. *Daedalus* was mentioned more often in future volumes than any other book in the series, particularly for his novel scheme for 'ectogenesis' (as explained later). *Daedalus* is a fascinating initial glimpse into futuristic scientific and technological memes among the progressive-era British intelligentsia, through the mind of this prolific popularizer; before Haldane made a marked turn to the political left and eventually renounced his support for organized Western-style eugenics (Barkan, 1992).

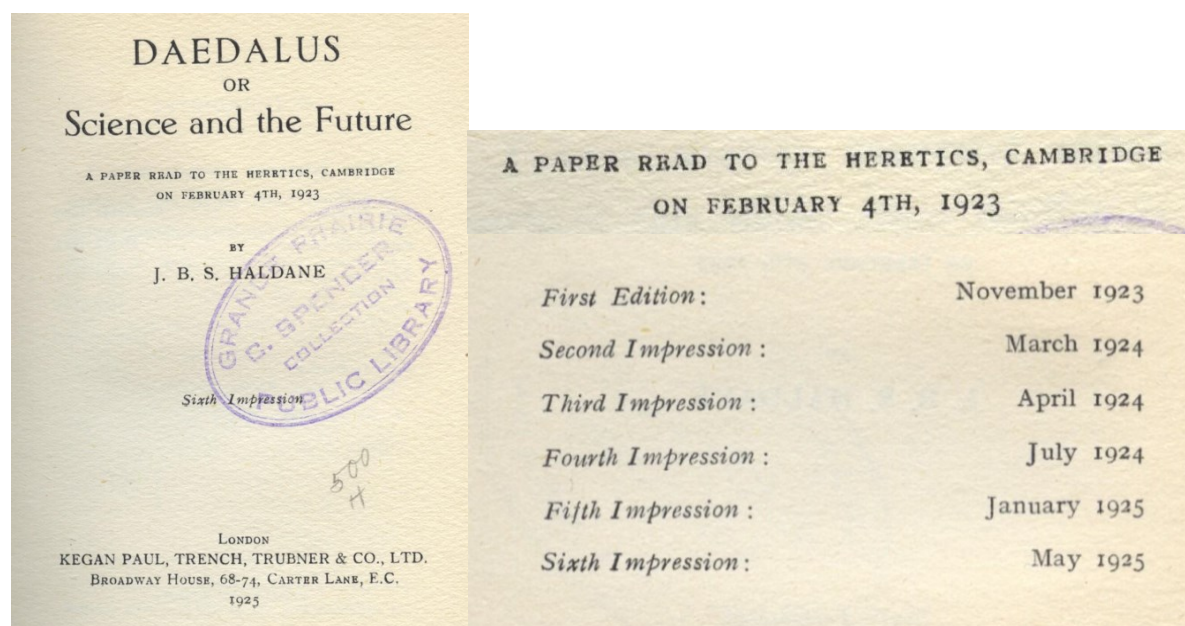


Figure 3-5: Frontispiece for Haldane's *Daedalus* in the *To-day and To-morrow* series and the publication dates of previous impressions. It finally reached eight impressions by the late 1920s.

As noted on the frontispiece, *Daedalus* was originally conceived as a speculative paper on the future of science, especially biology, read to the Heretics Society at Cambridge in early 1923. This society of agnostic nonconformists was created by C.K. Ogden in 1909, and featured lectures by numerous philosophical, scientific and literary notables such as Bertrand Russell, G.K. Chesterton, Ludwig Wittgenstein and Virginia Woolf.⁴⁰

⁴⁰ The speculative, futuristic nature of the *To-day and To-morrow* series owes much to this club's agnostic traditions of skepticism and criticism. Part of this speculation even extended, later in the series, to the future of Oxford and Cambridge in *Alma Mater* (1929 by Julian Hall) and a partisan response by W.J.K. Diplock: *Isis, or the Future of Oxford* (1929). These elite universities in Britain predominated as the *Alma Maters* for many authors of the series.

***Daedalus* as a Memetic Template and Foundation for Eugenics Themes in the Series**

As previously introduced in the opening section, Haldane's *Daedalus* served as a template for many of the subsequent volumes that dealt with broad societal issues, like eugenics. It acted as a stylistic guide for other futurists and prophets in the series, both those who expressed optimism about the potential for biological and cultural progress, and those who were pessimistic about modern man and the long-term continuation of progressive attitudes and outcomes, like Schiller or Ludovici.

Haldane's bold predictions of dramatic future scientific and technological innovations were sweeping in their scope and transformational in their effects. This vision of a scientific-technical New World Order attracted admirers in the scientific community and praise from literary critics (see later in this chapter for critical reviews and the long-term influence of Haldane's ideas in *Daedalus*). After the death, dislocation and horror of World War I, and the severe blow to the progressive-era mind-set that *'The Chemist's War'* (Kohlman, 2015) occasioned, the target audience was apparently looking for this kind of optimism and a renewed secular faith in the imperative of progress, through the application of rational science and advanced technology that Haldane boldly envisioned.

Although Haldane saw eugenics (as already formulated) as a rational means for modest biological and societal improvements in the near-future, the current possibilities of this applied science was but a stepping-stone to more radical innovations in reproductive technologies and human engineering, such as 'ectogenesis' and the exercise of direct-democracy in deciding the traits and characteristics that society should selectively breed for in the distant future (see meme-map of *Daedalus* on next page). It was this brave 'newgenics' of the future, complete with an enlightened populace that embraced these radical innovations that so excited hereditarians in the 1920s and beyond (Osborn, 1968; Reed, 1969), much like a *Star Trek* vision of the scientific-technological utopia of the 25th Century. This renewed optimism for radical biological-societal improvements by a new generation of bright-eyed optimists, prompted Kevles (1995) to update his cautionary tale *In the Name of Eugenics* (1985), for the sceptics of 'Newgenics,' as the biotech revolution of the 1980s seemed to echo the promises of *Daedalus*.

The panorama of Science, Technology and Society (STS) memes (see meme-map for *Daedalus* in Figure 3-6 on next page) and futuristic paradigms, including the possibilities of 'newgenics' still being championed by today's 'next generation' of *Star Trek*-inspired optimists, makes *Daedalus* a microcosm of the eugenically-relevant titles of the series. Finally, Haldane's notion of the scientist as a disruptor of the status quo (like the *Daedalus* of legend) and memetic pioneer-engineer and prime-mover of the future make this debut volume the natural starting point for any scholarly examination of the *To-day and To-morrow* series. My exposé and analysis is followed by contemporary reviews, a critical series response and a memetic echo from one of Haldane's disciples in the 1960s.

Breakdown of Eugenic Paradigms, Meme-clusters and Sample Memes in *Daedalus*

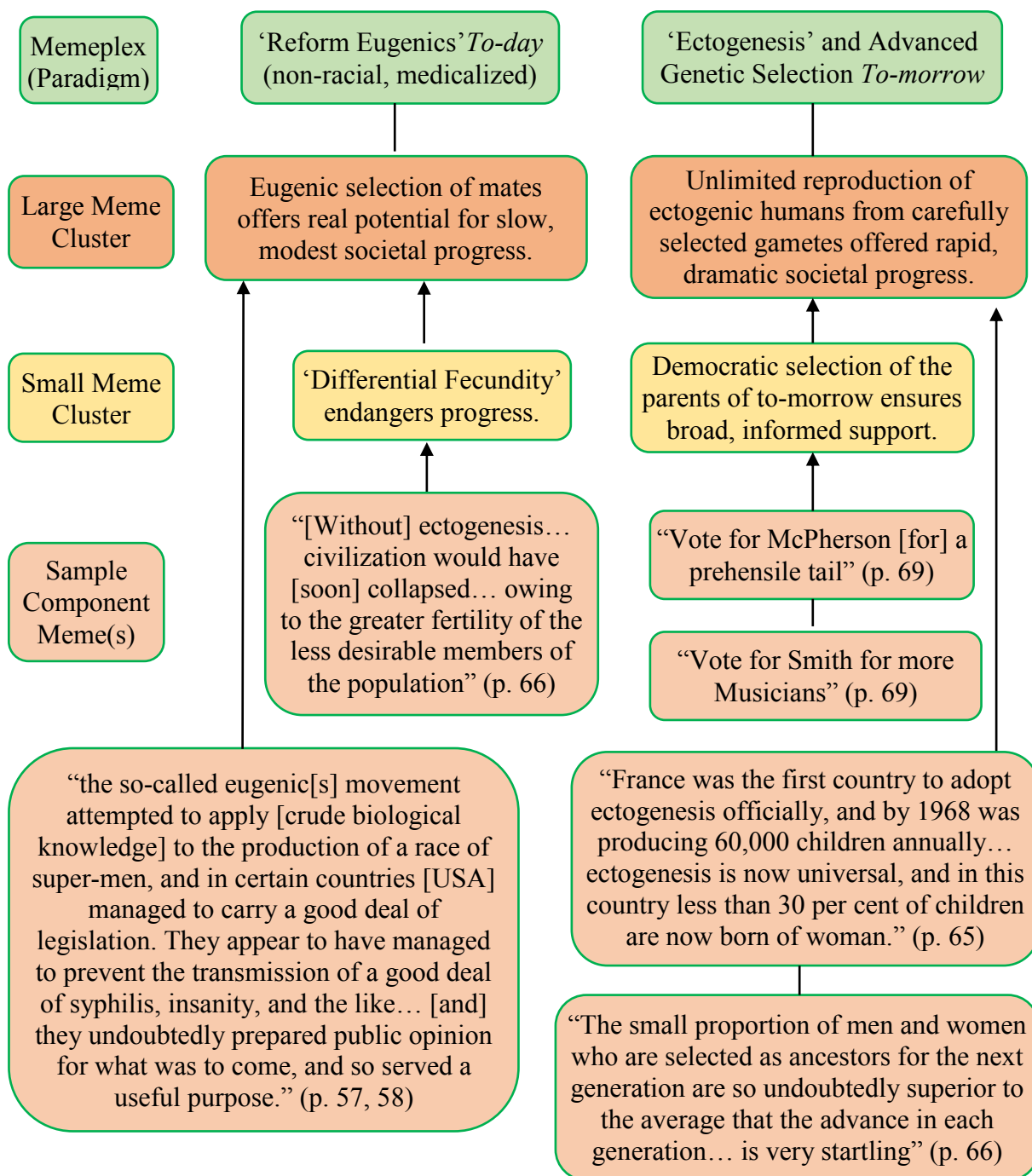


Figure 3-6: A partial meme-map for Haldane's *Daedalus*, covering the early, crude attempts at racial betterment and the more radical advances predicted for the mid-to-late 20th Century. The bulk of Haldane's treatment dealt with positive eugenics. He avoided explicitly advocating for compulsory negative interventions, though he did acknowledge the perceived social problems and granted the eugenics movement of the time some modest success. More important was the role of the movement as a memetic 'John the Baptist' preparing the way for the 'Newgenics' of the future, as offered by the next generation of Biologist-Messiahs following in their eugenical prophet's footsteps.

A Heretical Scientist Dons the Robes of Disruptive Prophet

Haldane began *Daedalus* by acknowledging the ‘Heretical’ origin of the book, apologizing for any “loss of unity” that expansion to book-form caused and he anticipated the criticism it would engender “for its undue and unpleasant emphasis on certain topics” (p. vii). In true Heretic fashion, he goes on to insist: “This is necessary if people are to be induced to think about them, and it is the whole business of a university professor to induce people to think” (p. vii). While Haldane provides repeated disclaimers about the accuracy of the details of his predictions, it is the wild speculations of a future so different from ‘Victorian-normal’ that generated the enthusiastic responses and alternate possibilities in future volumes in the series, beginning with Bertrand Russell’s *Icarus* (1924).

Haldane’s pays frequent attention to the disruptions of the First World War (in which he served as an officer in the British Army) that served as a profound check on the prevalent pre-war notion of continuous progress in Western society through science and technology. This pessimism is anticipated in these early passages, in which he makes a straw-man case against modern science, and asks whether scientific progress could even be arrested by common consent.⁴¹ He soon rejects the post-war angst in favour of a new spirit of socialistic, scientific progress, especially under a “Labour Party of the Australian type” that “alone among political organizations includes the fostering of scientific research” and that he hopes “may prove a better master than Capitalism” (p. 6, 7):⁴²

Has mankind released from the womb of matter a Demogorgon which is already beginning to turn against him, and may at any moment hurl him into the bottomless void? Or is Samuel Butler’s even more horrible vision correct, in which man becomes a mere parasite of machinery, and an appendage to the reproductive system of huge and complicated engines which will usurp his activities, and end by ousting him from the mastery of this planet? (p. 4)

[S]o long as our present economic and national systems continue, scientific research has little to fear. Capitalism, though it may not always give the scientific worker a living wage, will always protect him, as being one of the geese which produce golden eggs for its table. And competitive nationalism, even if war is wholly or largely prevented, will hardly forego the national advantages accruing from scientific research. (p. 6)

⁴¹ Haldane also admits the possibility of a collapse of civilization, “as it has done in parts of Russia, and science with it” (p. 6), citing G.K. Chesterton and other traditionalists, but argues that this be but a temporary postponement of progress, given the innate human spirit for innovation and progress. This prediction turned out to have mixed results.

⁴² In the 1930s, Haldane began a decades-long crusade for a Socialist overhaul of science, and he even supported Stalin’s plans to rapidly industrialize the USSR and marshal the scientific community to match and overtake the Capitalist West. He later suffered the consequences for his overt ideological support (Huxley, 1949) especially the reaction from the Western scientific community for his outspoken support for Lysenko’s ‘Marxist-Michurinism’ (a strain of neo-Lamarckianism buttressed by a Marxist-Leninist form of Darwinism that was given Stalin’s blessings as an official State-science), even after it was dismissed by leading geneticists as a naïve ideological perversion of biological science. (Pollock, 2006; Kohlman, 2011).

Before launching into an extended discussion of philosophers from Berkeley, Kant and Hegel, through to Einstein – “the greatest Jew since Jesus” – Haldane praises H.G. Wells in *Anticipations* (1902) as a “serious prophet, as opposed to a fantastic romancer,” for prophesying the future development (by 1950) of aeroplanes “capable of practical use in war” and promises to “make no prophecies rasher than the above” (p. 10). Although he ultimately failed to keep this promise; in *Daedalus*, we see the formulation of the series’ template for making futuristic ‘flights of fancy’ undergirded by idealist or materialistic philosophy, as well as modern science and technology, but written for an educated popular audience. This formulation would later be recapitulated in many of the most successful volumes of *To-day and To-morrow*, including for eugenics issues. Philosophically, Haldane predicts that Kantian idealism will “become the basal working hypothesis of the physicist and finally of all educated men, just as materialism did after Newton’s day” (p. 14). Haldane rounds out his preliminary overview of philosophical systems for the future of science, and predicts the eventual pre-eminence of the biological sciences with this prediction:

A time will however come (as I believe) when physiology will invade and destroy mathematical physics, as the latter have destroyed geometry. The basic metaphysical working hypothesis of science and practical life will then, I think, be something like Bergsonian activism. (p. 16)

Having thus set the context for the historical relationship between philosophy and ethics to the pure and applied physical sciences, Haldane devotes the last two-thirds of *Daedalus* to his main subject: the future of biology, and especially the future applications of physiology and genetics. He begins by reviewing past applications of agriculture and food-science to the building of civilization, notably the physiological effects of alcohol, caffeine and nicotine on civilization. He discusses, for instance, the impact of the coffee-houses and cafés of Europe on art, invention and scientific discovery. He forecasts a great socio-scientific revolution in about 120 years, when industrial chemistry realizes the ‘philosopher’s stone’ of food-science; the synthetic production of foods:

Many of our foodstuffs, including the proteins, we shall build up from simpler sources, such as coal and atmospheric nitrogen. I should be inclined to allow 120 years, but not much more, before a completely satisfactory diet can be produced this way on a commercial scale. (p. 38)

This will mean that agriculture will become a luxury, and that mankind will be completely urbanized. Personally I do not regret the probable disappearance of the agricultural labourer in favour of the factory worker, who seems to me a higher type of person from most points of view. Human progress in historical time has been the progress of cities dragging a reluctant countryside in their wake. Synthetic food will substitute the flower-garden and the factory for the dunghill and the slaughterhouse, and make the city as last self-sufficient. (p. 39)

However, such basic necessities as bread and wine are not Haldane's main focus here, and he turns "to the application of biology to human life" (p. 40), with an admonition against 'thinking small' by small-minded traditionalist eugenicists who prophesize a future based on outdated concepts advocated by Plato, Spartan elites and Jesuit priests:

[T]he average prophet appears to content himself with considerable if rather rudimentary progress in medicine and surgery, some improvements in domestic plants and animals, and possibly the introduction of a little eugenics. The eugenic official, a compound, it would appear, of the policeman, the priest, and the procurer, is to hale us off at suitable intervals to the local temple of Venus Genetrix with a partner chosen, one gathers, by something of the nature of a glorified medical board. To this prophecy I should reply that it proceeds from a type of mind as lacking in originality as in knowledge of human nature. Marriage "by numbers", so to speak, was a comparatively novel idea when proposed by Plato 2,300 years ago, but it has already actually been practiced in various places, notably among the Jesuits in Paraguay. It is moreover likely, as we shall see, that the ends proposed by the eugenicist will be attained in a very different manner. (p. 40, 41)

Having whet the appetite for 'newgenic' prophecy, Haldane reverts back to a review of the "half-dozen or so important biological inventions" (p. 42) of the past. He begins with the big four of antiquity, namely the domestication of animals, development of agriculture, fermentation of alcoholic beverages, and the fourth, the one with the greatest "far reaching importance:"

... since it altered the path of sexual selection, focused the attention of man upon woman's face and breasts [rather than the hips and pelvis], and changed our idea of beauty from the steatopygous Hottentot to the modern European, from the Venus of Brassemyou to the Venus of Milo.⁴³ There are certain races which have not yet made this last invention. And in our own day two more have been made, namely bactericide and the artificial control of conception. (p. 43)

After a glowing testimonial to Daedalus, Haldane prepares his audience for his most innovative prophecies for the future of science, technology and society, ones that will shake conventional morality and religion to the core, and even provoke rebellions in certain regions of the world. To do this, Haldane uses a literary device that would later be replicated by other author series, notably by Godwin in *Columbia, or the Future of Canada* (1928). Rather than boldly making his own predictions for the future, Haldane enlists an unnamed and "rather stupid undergraduate student" (p. 57), to write a retrospective history of great biological innovations for his Cambridge supervisor some 150 years hence. He places the student's 12-page essay in quotes, and then devotes considerably more

⁴³ STEATOPYGIA: an excessive development of fat on the buttocks among certain African women. One of the anthropologic descriptors applied to the 'Hottentot Venus' that made such a scandal in 19th Century London society.

space to describing the effects on society of these bold developments, with additional predictions about their impact on religion and morals. I quote several passages, beginning with this introduction:

As early as the first decade of the twentieth century we find a conscious attempt at the application of biology to politics in the so-called eugenic movement. A number of earnest persons, having discovered the existence of biology, attempted to apply it in its then very crude condition to the production of a race of super-men, and in certain countries managed to carry a good deal of legislation. They appear to have managed to prevent the transmission of a good deal of syphilis, insanity, and the like, and they certainly succeeded in producing the most violent opposition and hatred amongst the classes whom they regarded as undesirable parents. (There was even a rebellion in Nebraska.) However, they undoubtedly prepared public opinion for what was to come, and so served a useful purpose. (p. 57, 58)

This is as clear an appraisal of Haldane's attitude toward the eugenics of his time, as any in the book. While he condemns the "crude condition" (p. 57) of eugenic knowledge, he nonetheless supports the movement's aims for improving humanity on a rational, scientific basis. His statement about "certain countries" passing legislation was largely directed at the United States, as few other nations had reached that stage by 1923, though other jurisdictions (including Alberta) were preparing to join that club. It is interesting to see that his greatest praise for the eugenics movement of his time is memetic, in "preparing public opinion for what was to come," like a John the Baptist of eugenics. But before revealing what the analogue to the Christ of eugenics would be, Haldane's essayist covers the rest of the major innovations in the field of biology over the 150-years that his historic survey covers, which at its terminus would take us about 50-years from our present.

Before returning to human biology, Haldane's student essayist takes a few detours into genetics, pathology, botany and microbiology. There is an account detailing the bio-engineering of a new purple algae, *Porphyrococcus fixator*, which made conventional agriculture obsolete, increased food production by an order of magnitude, and led to a global "food glut" that caused the "ruin of purely agricultural states" (p. 58), rebellions in Nebraska and a short Civil War in 1943-44. During the same period, a mutant strain of this alga colonized the oceans, and multiplied uncontrollably, even turning the oceans purple. This in turn led to such an increase in fish populations, that they became the staple protein for the entire world, and made Britain self-sufficient in food supplies. A similar development, a modified lichen produced by a botanist, eventually reclaimed all the world's deserts, leaving lush fields and forests in its wake. The dislocations to agriculture were cured by putting the unemployed to work constructing Haldane's predicted wind and solar-power farms, and an advanced hydrogen energy infrastructure. Thus by the early 1960s the world's shortages of food, arable land and energy were solved.

Ectogenesis as *The Next Generation of Eugenics*

The great burst of progress, exposted by Haldane's student essayist in other areas of biology was contemporaneous with great advances in the human sciences as well. The essayist recounts the great impact on human reproduction and eugenics leading from the stupendous feat of Dupont and Schwartz, who in 1951 produced the world's first "ectogenetic child" (p. 63). From a modest start growing simple mammalian cells and tissues in culture (including a breakthrough by Haldane himself), the pioneers of ectogenesis gradually perfected the technique, and it was adopted by most of the 'civilized' world, with some fierce resistance by Catholics and Hindus:

France was the first country to adopt ectogenesis officially, and by 1968 was producing 60,000 children annually by this method. In some countries the opposition was far stronger, and was intensified by the Papal Bull "Nunquam prius audito", and the similar fetwa [sic] of the Khalif, both of which appeared in 1960. As we know, ectogenesis is now universal, and in this country less than 30 per cent of children are now born of woman. (p. 65)

Although our essayist reveals some serious disruptions to family life and society (and skips-over the use of 'negative eugenics' like sterilization or abortion) caused by this momentous change, the result was seen as being so overwhelmingly positive and progressive that these concerns were quickly overcome. These ethical concerns were vetoed by the great advances made possible by selecting only outstanding donors of eggs and sperm to become the parents of future generations, in a way foreshadowing Trofim Lysenko's promised agricultural miracles, but applied to humans:

[I]t is generally admitted that the effects of selection have more than counterbalanced these evils. The small proportion of men and women who are selected as ancestors for the next generation are so undoubtedly superior to the average that the advance in each generation in any single respect, from the increased output of first-class music to the decreased convictions for theft, is very startling. Had it not been for ectogenesis there can be little doubt that civilization would have collapsed within a measureable time owing to the greater fertility of the less desirable members of the population in almost all countries. (p. 66)

Haldane hinted his fictional essayist would go on to recount "some far more radical advances made about 1990" (p. 66), but he does not reveal these. Instead, he discusses the practical possibility of these 'earlier' advances, hails the great achievement of separating reproduction from sexual love, and the profound new freedom (especially for women) that it engendered. This biological and sexual revolution even led to democratic elections for the selection of future genetic parents, who would run campaigns to be elected to the list of egg or sperm donors. Haldane even suggests some 'eugenic stumping slogans' such as: "Vote for Smith for more musicians" or "Vote for MacPherson and a prehensile tail for your great-grandchildren" (p. 69).

By ignoring the negative eugenics programs that were the focus of most legislation and lobbying efforts in America, and pointing instead to the future possibilities of positive eugenics, Haldane appealed to optimistic hereditarians of his time. His vision of a utopic future society prefigures the “Liberal Eugenics” (Agar, 2004) of the 1970s and beyond, which resurrected Haldane’s memes for improving society through the application of advanced biotechnology, now divorced from the banner of hardline eugenics (Osborn, 1968).⁴⁴ This optimistic ode to the biologist of the future as a sort of Messiah delivering mankind from the evils of poor heredity inspired new disciples to strive to fulfill this prophecy, even creating new medical-scientific specialties, like genetic counselling.

Having solved the problem of improving the race, Haldane also made bold predictions for eutenic improvement through hormone therapy. This presaged similar enthusiasm in other *To-day and To-morrow* volumes, engendered by the recent discovery of the ‘ductless glands’ and the hormones they produced. These endocrine secretions were hailed as miracle drugs for treating such conditions as hypothyroidism and menopause, even mental disorders, addictions to vice, or criminal behaviour. He also prophesied the conquest of cancer and the abolition of chronic disease, leaving only the natural cell-division limit to finally claim the elderly, resulting in a “generation that has lived together, [to] die together” (p. 73), in a collective release from this mortal coil.

Haldane then made another detour into secular spirituality, suggesting science would produce a means for communicating over the great inter-planetary distances to commune with ultra-intelligent beings, which would not only lead to astounding technical advances, but also become “Christianity’s most formidable enemy” (p. 76). Thus, science would break the remaining memetic control of sectarian religious authorities, and usher in a new, enlightened secular religion for the enhanced citizens of his Newgenic utopia. He transitions into a long, meandering summary of the main points and their implications for the future of science, especially the rise of biology as the pre-eminent science, and Haldane models his heroic tone of service, sacrifice and sober secular spirituality:

I have tried to show why I believe that the biologist is the most romantic figure on earth at the present day. At first sight he seems to be just a poor little scrubby underpaid man, groping blindly amid the mazes of the ultra-microscope, engaging in bitter and lifelong quarrels over the nephridia of flatworms, waking perhaps one morning to find that someone whose name he has never heard has demolished by a few crucial experiments the work which he had hoped would render him immortal. There is real tragedy in his life, but he knows that he has a responsibility which he dare not disclaim, and he is urged on, apart from all utilitarian considerations, by something or someone which he feels to be higher than himself. (p. 77, 78)

⁴⁴ “Liberal Eugenics” (the title of Agar’s book) refers to the suite of new reproductive technologies and services, like prenatal genetic testing and diagnosis that gained popularity in the wake of *Roe v Wade* (which made abortion legal). The providers of these services avoided the term ‘eugenics,’ just as Frederick Osborn had predicted in 1968.

Haldane's romanticism included a portrait of the scientist as a new revolutionary, storming the barricades of superstition and tradition: as a "wrecker of outworn empires and civilizations" (p. 78):

In the past they have been, in general, men like Voltaire, Bentham, Thales, Mars, and very possibly the divine Julius, but I think that Darwin furnishes an example of the same relentlessness of reason in the field of science. I suspect that as it becomes clear that at present reason not only has a freer play in science than elsewhere, but can produce as great effects on the world through science as through politics, philosophy, or literature, there will be more Darwins. Such men are interested primarily in truth as such, but they can hardly be quite uninterested in what will happen when they throw down their dragon's teeth into the world. (p. 78, 79)

This revolutionary spirit would soon be realized in the serial cataclysms of the Great Depression, World War II and the Cold War, leaving Britain as one of those "outworn empires" (p. 78).⁴⁵ While Haldane strongly supported the spirit of Internationalism and the doomed League of Nations, and the eventual realization of a world government; he predicted it would take further disruptions and dislocations before this is realized. Although such a development is not in sight, and perhaps further away than ever, the eventual realization of Haldane's prediction of future turmoil to forge a universal State through global war was even more destructive and immediate than he hoped:

I do not suggest that a world-state will arise from the present League—or for that matter from the Third International. I merely observe that there is a widespread and organized desire for such an institution, and several possible nuclei for it. It may take another world war or two to convert the majority. The prospect of the next world-war has at least this satisfactory element. In the late war the most rabid nationalists were to be found well behind the front line. In the next war no one will be behind the front line. (p. 84)

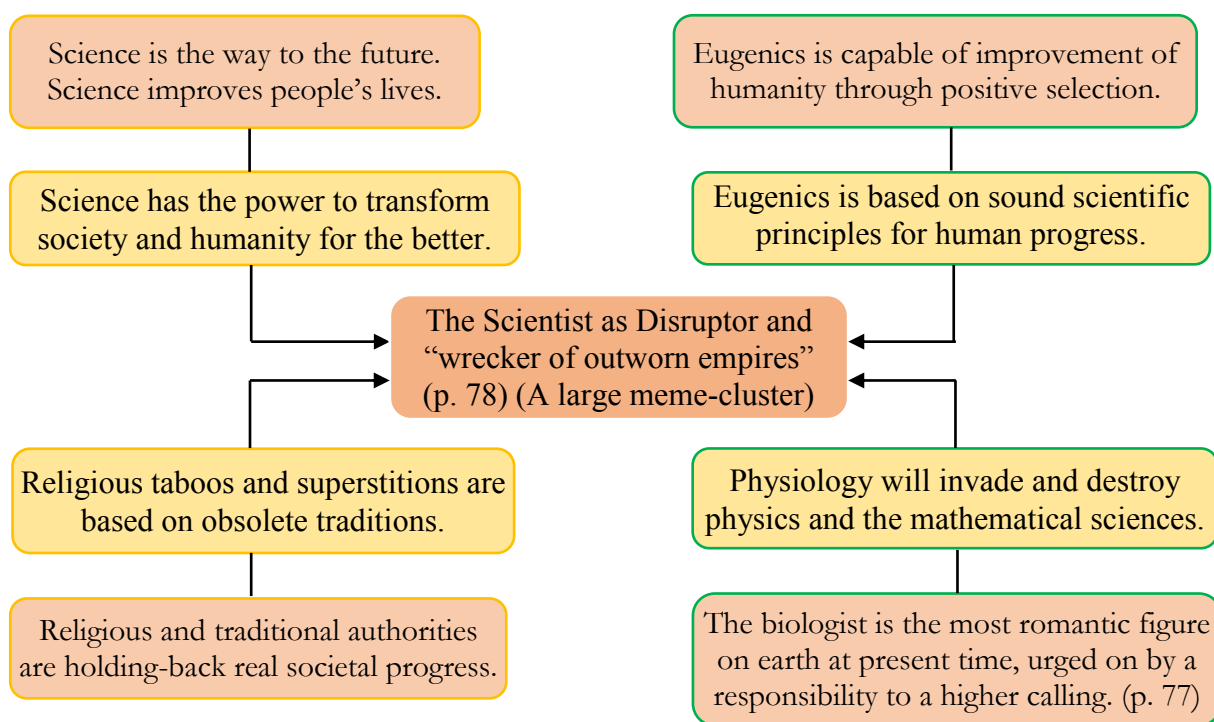
Haldane received considerable acrimony from some colleagues and public for his participation in, and support for chemical warfare in 'the Chemist's War' (See review of *Callinicus, or a Defence of Chemical Warfare* (1925) in Appendix III). But his later overt support of revolutionary science in Stalin's Soviet Union eventually alienated even former 'fellow travelers' such as Julian Huxley and Hermann Muller as well as "the most rabid nationalists" (p. 84). The representative meme-map in Figure 3-6b on the next page summarizes Haldane's revolutionary scientific spirit in *Daedalus*.

⁴⁵ Haldane and many of his colleagues at Oxford, Cambridge and other British universities would be swept up in the revolutionary spirit of these turbulent times, as the Comintern spread its influence into the West. Meanwhile, Communism's great foil, Fascism, pressed the Aryan scientific elite of Nazi Germany into combatting Jewish-Bolshevism, destroying 'Jewish Science' and forging the race-hygiene pogroms of the Third Reich (Cornwell, 2003). In the great political and scientific purges of Stalin's USSR, before and after World War II, revolutionary ardor was realized as 'Marxist-Darwinist' science, and the charge of being a 'Western Imperialist Morganist-Mendelian' or 'Fascist-Eugenicist' often led to exile or death (Pollock, 2006). Soviet science under Stalin and Lysenko supported confiscation of private farmland, forced collectivization, exile or death of Kulaks and 'wreckers,' as well as mass-starvation in the Holodomor that killed millions of peasants in the Ukraine (Soyfer, 2010).

From the ashes of these future cataclysms, Haldane’s predictions in *Daedalus* were to become the stuff of popular post-war science fiction. Some of this futurism was presaged by Aldous Huxley’s *Brave New World* (1932), itself partly a critique of Haldane’s ectogenetic vision in *Daedalus*. Haldane’s final prediction, poetically brings us full-circle back to Daedalus, his icon for the future scientist. For his parting shot, he modifies Scottish poet Robert Buchanan’s *Homonculus*, or the *Song of Deicides*, in which Satan is the speaker (Parrinder, 2011) for the swansong:

The scientific worker of the future will more and more resemble the lonely figure of Daedalus as he becomes conscious of his ghastly mission and proud of it.

“Black is his robe top to toe,
His flesh is white and warm below,
All through his silent veins flow free
Hunger and thirst and venery,
But in his eyes a still small flame
like the first cell from which he came
Burns round and luminous, as he rides
Singing my song of deicides.” (p. 93)



Color Codes: Small Meme-cluster Sample meme(s) Yellow Borders – Euthenics Green Borders – Reform Eugenics

Figure 3-6b: A partial meme-map for Haldane’s image of the scientist as a revolutionary societal disruptor and “wrecker” (a popular Bolshevik term for saboteur) of outworn empires.

***Daedalus* Critics and Haldane's Latter-day Admirers:**

Daedalus sold over 15,000 copies by 1925, and it had a huge influence on later volumes of the series. Rather than presenting all of the later *To-day and To-morrow* references and counterthrusts to *Daedalus* here, I will limit myself to one extended response here. This pessimistic rebuttal comes from Bertrand Russell's *Icarus, or the Future of Science* (1924), which was written in direct response to Haldane's series debut, as the opening paragraph below makes quite apparent:

Mr. Haldane's *Daedalus* has set forth an attractive picture of the future as it may become through the use of scientific discoveries to promote human happiness. Much as I should like to agree with his forecast, a long experience of statesmen and governments has made me somewhat skeptical. I am compelled to fear that science will be used to promote the power of dominant groups, rather than to make men happy. Icarus, having been taught to fly by his father Daedalus, was destroyed by his rashness. I fear that the same fate may overtake the populations whom modern men of science have taught to fly. (p. 5, 6)

Whether readers today would agree with many of Haldane's predictions as being "attractive" or likely to actually "promote human happiness" is another question. Russell later confessed in his second volume for the series (*What I Believe*, 1925) that *Icarus* was rather pessimistic and fearful, and he attempted to paint a more positive future for mankind and science in his next effort. But Russell's fears were to be shared by millions in the near future, and billions in the century to follow. To be fair, some of Russell's own predictions – such as the proliferation of nuclear energy – became another source of fear and loathing for post-modern mankind (see Weart in *Nuclear Fear*, 1988).

Russell's initial contribution to the series also made several references to eugenics and other human sciences. It was not until roughly the two-thirds mark of *Icarus* that Russell turned to the "anthropological sciences" (p. 43) and their implications for the society of the future. Not surprisingly, he begins with birth control, which he predicted was essential for the realization of his favoured global state, made necessary to counter the threats posed by the excessive fecundity of less civilized nations. He lamented that birth control was opposed by governments "due partly to mere superstition and desire to conciliate the Catholic vote, and partly to the desire for large armies and severe competition between wage-earners, so as to keep down wages" (p. 44). But he hailed the growth of the practice as a "victory of individual over collective passions" (p. 45). He cautioned, however, that in the future, birth control may result in declining populations of the "most intelligent sections of the most civilized nations" (p. 47) leading to 'race-suicide' of WASPs, as popularized by American eugenicists such as Alexander Graham Bell and President Theodore Roosevelt (Dyer, 1980; Spiro, 2009) for two decades or more (see *Historiography of Eugenics* in Appendix II).

Russell also warned of the possibility of a decline or even fall of Western civilization, caused by the greater fecundity of its racial inferiors, evoking a version of the Nordic-decline theory, as popularized in Madison Grant's *Passing of the Great Race* (1916). Here is an excerpt of Russell's vision of a future racial apocalypse, and its potential prophylactic through the judicious use of contraception to control the fecundity of non-White colonial populations:

Before long, birth-control may become nearly universal among the white races; it will then not deteriorate their quality, but only diminish their numbers, at a time when the uncivilized races are still prolific and are preserved from a high death-rate by white science... This situation will lead to a tendency – already shown by the French – to employ more prolific races as mercenaries. Governments will oppose the teaching of birth-control among Africans, for fear of losing recruits. The result will be an immense numerical inferiority of the white races, leading probably to their extermination in a mutiny of mercenaries. If, however, a world-government is established, it may see the desirability of making subject races also less prolific and may permit mankind to solve the population question. (p. 47, 48)

Having solved the quantitative global population question, Russell turns to qualitative concerns, and “the question of eugenics” (p. 48). He even seems to support the practice, or at least he offers a potentially dystopic eugenic possibility as a prophetic Devil's advocate:

[I]f people grow less superstitious; governments will acquire the right to sterilize those who are not considered desirable as parents. This power will be used, at first, to diminish imbecility, a most desirable object. But probably, in time, opposition to the government will be taken to prove imbecility, so that rebels of all kinds will be sterilized. Epileptics, consumptives [people with Tuberculosis], dipsomaniacs, and so on will gradually be included; in the end, there will be a tendency to include all those who fail to pass the usual school examinations. The result will be to increase the average intelligence. (p. 49)

Russell's biggest objection to negative eugenics was that sterilization of the ‘less-desirable classes’ may result in a diminution of exceptional intelligence, using the example of Charles Dickens' father. He asked a rhetorical question that would soon be answered by American Supreme Court Justice Oliver Wendell Holmes in the 1926 *Buck vs Bell* decision: “How many imbeciles ought to outweigh one Dickens I do not profess to know” (p. 49).⁴⁶ Having dealt with the negative side, Russell turns to the potential progress of positive eugenics through polygamy, much as Haldane had done for his scheme of ectogenesis. Russell advocated for prolific fatherhood among the eugenically endowed, but he also cautioned against the sort of scientific hubris that plagued fellow Nobel laureates Hermann J. Muller and physicist-turned-eugenicist William Shockley in their late 1960s

⁴⁶ Justice Holmes would declare in his written Supreme Court decision for the majority that “three generations of imbeciles are enough” (Bruinius, 2006).

creation of the ‘Genetic Repository of Genius’ in California, which advertised ‘genius sperm donors’ to willing female acceptors (Kohlman, 2012). Russell thus presages these later attempts and their pitfalls, but he used some humility and humour to avoid Shockley’s boasting of his own genius sperm:

Moral Standards may alter so as to make it possible for one man to be the sire of a vast progeny by many different mothers. When men of science envisage a possibility of this kind, they are prone to a type of fallacy which is common also in other directions. They imagine that a reform inaugurated by men of science would be administered as men of science would wish, by men similar in outlook to [their own]. (p. 50)

So, if eugenics reached the point where it would increase the desired types, it would not be the types desired by present-day eugenicists, but rather the types desired by the average official. Prime Ministers, Bishops [Anglican, not Catholic] and others whom the state considers desirable might become the fathers of half the next generation. Whether this would be an improvement is not for me to say, as I have no hope of ever becoming either a Bishop or a Prime Minister. (p. 51)

As we will see in the next chapter examining the American journal *Eugenics*, eugenicists were quite happy to count Presidents and Governors, Protestant Ministers and Anglican Bishops and other high officials among the eugenically valuable, and would have been overjoyed to have them “father half the next generation” of Americans, rather than the ‘rogues gallery’ of undesirables and inferior races they railed against (see section on the “End of *Eugenics*” and the lone issue of *People* in Chapter IV for an actual picture of this rogues gallery used for forensic purposes).

Russell’s final thought on eugenics is eerily accurate, even in the context of Alberta’s Eugenic Sterilization program (Grekul, 2008), begun just a few years later: “If we knew enough about heredity to determine what sort of population we would have, the matter would of course be in the hands of State officials, presumably elderly medical men. Whether they would really be preferable to Nature I do not feel sure” (p. 52). On this point, Russell’s doubts later proved to be more than justified. Before concluding his chapter on the anthropological sciences, Russell also considered the future potential of psychology in modifying public opinion. He lauded the increasing influence of psychology in America for advertising and official propaganda, but cautioned against the uncritical application of intelligence tests “as applied to recruits for the American army during the war” (p. 53):

I am very skeptical of the possibility of testing anything except average intelligence by such methods, and I think that, if they were widely applied, they would lead to many persons of great artistic ability being classified as morons. The same thing would have happened to some first-rate mathematicians. Specialized ability not infrequently goes with general disability, but this would not be shown by the kind of tests that psychologists recommended to the American government. (p. 53)

Russell's mixed enthusiasm for psychology was compensated by his faith for the future potential of physiology and the control of the "emotional life through the secretions of the ductless glands" (p. 53) that had also been raised by Haldane in *Daedalus*. This was at a time when the endocrine system and its hormones were just being discovered, but before any widespread medical applications were practiced, such as the injection of animal or synthetic insulin by diabetics. This same 'better future through pharmacology' meme would be repeated by other series authors. Russell's predictions for emotional control or manipulation would also be picked-up and expanded upon by Aldous Huxley in his futuristic *Brave New World* (1932). In Russell's memetic worldview, the story went like this:

Assuming an oligarchic organization of society, the State could give to the children of holders of power the disposition required for command, and to the proletariat [children] the disposition for obedience...The only difficulty would be to combine this submissiveness with the necessary ferocity against external enemies; but I do not doubt that official science would be equal to this task. (p. 54)

Russell also predicts the use of psychotropic drugs to control the civil population by medication rather than incarceration or physical punishment, extending even to control behavior in elementary school children, presaging the Ritalin-fix of our time; but he also offers this admonition to the future technocrats who would administer the system:

The men who will administer this system will have a power beyond the Jesuits, but there is no reason to suppose that they will have more sense than the men who control education today. Technical scientific knowledge does not make men more sensible in their aims, and administrators in the future, will [likely] be no less stupid and no less prejudiced than they are at present. (p. 55)

In his brief concluding chapter, Russell first apologizes for the apparent gloominess of his prognostications, but then proclaims the primary lesson is not to assume that scientific progress "must necessarily be a boon to mankind" (p. 57), pronouncing this a 19th Century delusion that must be discarded. So long as the motives of powerful elites are mainly evil, science and technology enables them to project their power beyond their wisdom to control it. Until irrational passions can be controlled and kindly impulses strengthened, today's leaders cannot be trusted to do what is beyond their own selfish interests. He imagines that an "international secret society of physiologists" might be able to kidnap them and "inject into their blood some substance which would fill them with benevolence towards their fellows" (p. 61). Russell's "utterly pessimistic" (see the quote from

promotional mini-review in Figure 3-3) long closing-paragraph, like a Thomas Hobbes of his time, effectively summarizes the political and ethical thrusts of *Icarus* and the prevailing fears in the Zeitgeist of the post-WW I ‘Age of Anxiety.’ It thus bears quoting here in its entirety, as I did for his opening paragraph earlier in this review:

We may sum up this discussion in a few words. Science has not given men more self-control, more kindness, or more power of discounting their passions in deciding upon a course of action. It has given communities more power to indulge their collective passions, but, by making society more organic, it has diminished the part played by private passions. Men’s collective passions are mainly evil; far the strongest of them are hatred and rivalry directed towards other groups. Therefore at present all that gives men power to indulge their collective passions is bad. That is why science threatens to cause the destruction of our civilization. The only solid hope seems to lie in the possibility of world-wide domination by one group, say the United States, leading to the gradual formation of an orderly economic and political world-government. But perhaps, in view of the sterility of the Roman Empire, the collapse of our civilized world in the end be preferable to this alternative. (pp. 62-64)

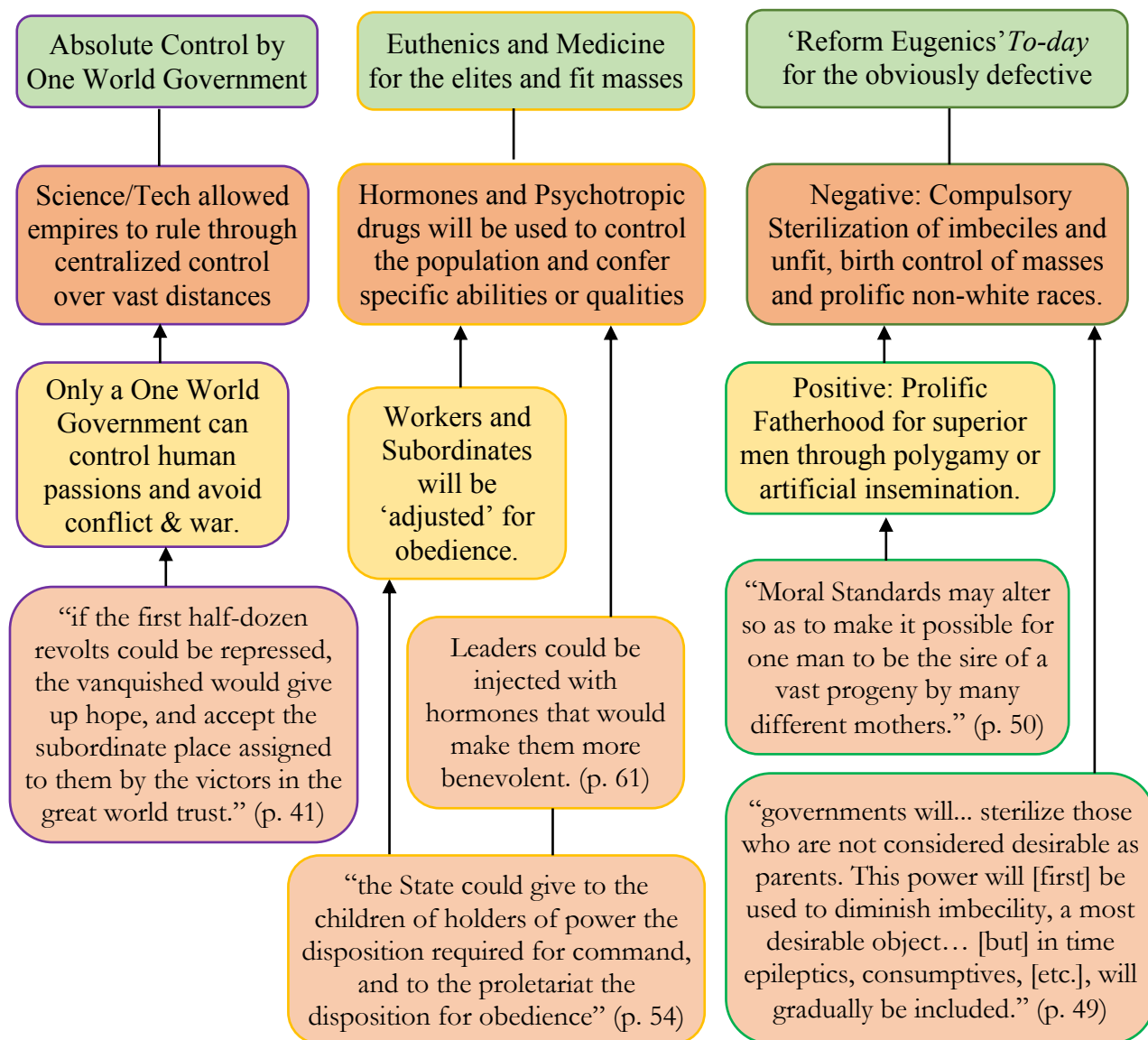
It should come as no surprise to to-day’s reader that many of these musings are still being debated and fought-over, and the prospects for to-morrow are no less garrulous or ‘guerre-ulous.’ If this limited sampling of memetic vignettes for Russell’s (1924) thinking on science, technology and the future of humanity appears out-of-sorts with his later anti-Nuclear, anti-War activism, the same could be said for Haldane’s later writings and activism in support of Soviet science in Stalin’s Russia.⁴⁷ As for contemporary observers, the one-two punch of Haldane’s *Daedalus* and Russell’s *Icarus* sparked much controversy and debate, just as the publishers had hoped. As the series progressed, a recurring attempt was made to replicate the passionate rivalry in subsequent paired volumes on other topics.⁴⁸

As I did for Haldane’s *Daedalus* previously, Figure 3-7 on the next page is a representative meme-map for Russell’s *Icarus*, encompassing his somewhat reluctant concessions to eugenics, his more ardent advocacy for euthenic interventions, and his radical ideas for memetic control of the population.

⁴⁷ See Kohlman, 2011; or my review of W. Russell Brain’s *Galatea* (1927) in Appendix III for a shorter synopsis of Haldane’s neo-Lamarckian memetic makeover in the 1930s and post-war years.

⁴⁸ One subsequent iteration of note was the pairing of titles devoted to women’s issues and the “Future of Woman” with the dueling-duo of A.M. Ludovici in *Lysistrata* (1925) and Dora Russell with *Hypatia* (1925 – see separate reviews of both in Appendix III). Dora was Bertrand’s second wife and mother of four of his five children, though he was apparently only the biological father of two.

Breakdown of Three Paradigms, with Meme-clusters and Sample Memes in *Icarus*



Color Codes: Memeplex Larger meme-cluster Smaller meme-cluster Sample meme(s)

Purple borders – Memetics Yellow borders – euthenics Green borders – reform eugenics

Figure 3-7: A partial meme-map for Russell's *Icarus*, covering three expressed memeplexes for managing society in a more rational and progressive manner: eugenics for the more irremediable of society, euthenics and pharmacology for the normal and elites, and memetic control through a strong, centralized one-world-government that would manage human passions or conflicts, and avoid war.

A number of period reviewers dealt with the Haldane/Russell pairing together, including the *New Republic* in America, where the series was published by E. P. Dutton. Their October 1924 review dealt with *Daedalus* first and devoted about two-thirds of the total space to his fantastic predictions, before turning to Russell's criticism of modern science and technology. The reviewer also briefly critiques the genre of popular science books, of which the *To-day and To-morrow* series was just one iteration. See Figure 3-8 on the next page for an excerpt of the first and last paragraphs of the *New Republic* review.

A much more comprehensive overview of popular science series in the interwar period can be found in Peter Bowler's recent *Science for All: The Popularization of Science in Early Twentieth Century Britain* (2009). *Daedalus* and *Icarus* were published three decades before television, and even before household radios became widespread. Also, the bulk of the British public was not yet significantly exposed to formal science education, unless they had attended secondary schools with a modern, as opposed to a classical curriculum. Thus, for the majority of the adult population, private reading was the primary means for science education, and even more critical for extra-curricular topics like eugenics.

As Bowler explains, the various book series, magazines, and newspaper serials offered to educate a curious, though often fearful public about science, technology and the possibilities of life in a modern industrial society, while still providing the adventure and entertainment they craved. Various niches ranging from the sensationalistic to the philosophically sophisticated were eventually filled by numerous offerings for all tastes and almost all economic means. Some of this variety in popular science education literature of this period can be gleaned from the initial discussion in the *New Republic* review excerpts in Figure 3-8 on the following page:

The Wings of Science

Daedalus, or the Science of the Future, by J. B. S. Haldane. New York: E. P. Dutton and Co. \$1.00.

Icarus, or the Future of Science, by Bertrand Russell, F.R.S. New York: E. P. Dutton and Co. \$1.00.

AS a playground for the imagination modern science is quite unexampled. It is a land of unlimited superlatives. People with a taste for magnitude can contemplate the size and distance of Betelgeuse. Those of a delicate and refined disposition can give their consideration to the dimensions and orbits of the electron. If any have an eye for color and a taste for lush scenery, let them roam at large in the Jurassic period, among dinosaurs, toothed birds and flying reptiles. Others, of a mechanical turn, can people some future paradise with such prodigies of machinery as seem reasonable upon the basis of the airplane or the audion bulb.

To enjoy this sport it is not even necessary to possess any great imaginative power in one's own right. The bookshops abound with every sort of tale of the wonders of the past and the possible glories of the future. There are wonders of invention, mysteries of electricity and marvels of horticulture, all brightly illuminated by fantastic illustration. Unfortunately, there is a certain sameness about these books. They incline all to rely on the same device, magnification. The future is to be bigger and better but qualitatively the same. In the end the suspicion steals over the reader that this awesome future is nothing but the present regarded through a glass, largely. Even the skilled purveyor of marvels must depend upon the accredited scientist for his materials, and the scientist is usually loath to go beyond the present.

Unfortunately this is all too true. The reluctance which many intelligent and progressive people feel toward resigning themselves wholly to the advices of the present set of ardent eugenists is due to their doubt not of the mechanical efficacy of limitation but of the human wisdom of the eugenists' positive recommendations. As things stand Mr. Russell's melting of the wax from the wings of science leaves no alternative but a catastrophic fall. There is just one reservation to be made; but it future. He assumes a condition, in itself quite intelligible, and argues from that. But nothing in human life stands still, not even political prejudice. If a social psychologist were to take up the argument, adding his little say to the essays of the Cambridge scientists, he would doubtless begin by pointing out that circumstances alter outlook. So complete a revolution in the domestic economy as that suggested by Haldane would necessarily recompose all the fundamental institutions of the state. We should not have the new technology under the administration of the older statescraft. But more important than the overt shift in institutions is the changing complexion of ideas. Human thinking itself follows the lead of circumstance. There is no reason to suppose that the existing motivation and rationalization of political and economic behavior will persist through never so extensive development of the industrial revolution. In short, Mr. Russell has succeeded in exhibiting the incompleteness and precariousness of the achievement heralded by Haldane. But before he can pronounce them suicidal another physician must be called in to write the prognosis of another process: Prometheus, or the Future of Human Thought.

C. E. A.

Figure 3-8: First and last paragraphs of *Daedalus* and *Icarus* reviews in *The New Republic* (Oct. 1924). Note the prophetic 'prognosis' at the end of the review for a future addition to the series: *Prometheus*, although not the right subject area for the sub-title. Ironically, the author, H. S. Jennings (see next section), was one of the few American authors to contribute to the overwhelmingly British series.

From this initial pairing of titles, which was never equaled in either sales or literary impact, the *To-day and To-morrow* series offered the promise of scientific literacy for an educated, middle-class; and the opportunity to assemble a home library that covered a plethora of controversial science, technology and society issues. The series went well beyond the more sensational pulp-science offerings that served the bottom-end of the market. Bowler (2009) appraises *To-Day and To-morrow* as the "most innovative" and that it was "intended to be provocative;" fueling debates among educated readers "reflecting the serious divisions about science within the intellectual world that seldom percolated down to the self-education series" (p. 139). Being interested in self-improvement for themselves and their families, eugenics and euthenics was a natural subject to be mined, and numerous future volumes filled-in the smaller open niches of this aspirational market.

***Daedalus* Resurrected in “*Eugenics Tomorrow*”**

As mentioned in a previous footnote, *Daedalus* was also the inspiration for one of the chapters in an edited volume: *Haldane and Modern Biology* (Dronamraju, 1969) published ~50-years after *Daedalus*, authored by influential admirers celebrating J. B. S. Haldane’s life and contributions to science and philosophy. “Eugenics Tomorrow” (pp. 231-242) was the only chapter to discuss Haldane’s eugenic writings or activities. It was written by Dr. Sheldon C. Reed, a pioneer of “genetic counseling” (he actually coined the term) at the “Dight Institute for Human Genetics” at the University of Minnesota (p. 231).⁴⁹ This institution was originally formed in 1941 “to promote biological race betterment—betterment in human brain structure and mental endowment and therefore in behavior” (Kevles, 1987, p. 253). It also faithfully served for several decades as the caretaker for the multitude of preserved documents from the *Eugenics Record Office* (ERO) in Cold Spring Harbor (Phelps, 1984), after the ERO closed at the opening of World War II (see Appendix II for the history of the ERO and its leadership and the profile of the ERO in “Eugenical Institutions” in Chapter IV).

Reed’s “Eugenics Tomorrow” chapter, besides making its own rather modest predictions in the style of *To-day and To-morrow* for ‘A New Eugenics’ (eventually abbreviated to “Newgenics” in Kevles, 1995), is a worthy update to *Daedalus* for other reasons as well. One of these is for the discussion, in a *positive slant*, of the ideas and schemes of latter-day American eugenicists like Herman J. Muller and William Shockley. This was while the American movement was being rebranded and undergoing a change in focus, especially to considering global population problems and demographic transitions (Osborn, 1968). Another reason is for its empirical confirmation of Frederick Osborn’s (one of the last presidents of the *AES*) prediction that in the future, “Eugenic goals are most likely to be attained under another name than eugenics” (Osborn, 1968, p. 104).

Rather than being apologetic for Haldane’s eugenical pronouncements, Reed credited a walk with Haldane in 1932 during his days as a young graduate student “attending my first genetics congress,” with “influencing a young man’s future reactions” (p. 231). He praised *Daedalus* for its popular success in reaching the progressive public with “its imaginative and prophetic thoughts” (p. 231) and recounted some of the eugenically active passages with extended quotes, combined with a brief commentary of their significance for the future. Reed also briefly discussed Haldane’s later treatise, *Heredity and Politics* (1938); though he deemed it inferior to *Daedalus*, and noted Haldane’s prophetic inability to see that Hitler’s eugenic policies (on whom Haldane withheld judgement) were a menace to the world, “less than two years from the time of his [1937] writing” (p. 234).

⁴⁹ A number of progressive-era analogues of the “Dight Institute” were profiled in *Eugenics* (1928-31), such as the “Bussey Institution” at Harvard (Nov. 1928) or the “Brush Foundation” at Case Western Reserve University in Cleveland (Feb. 1929). Refer to the “Eugenical Institutions” section of Chapter IV.

Though many of Haldane's prophecies were not realized and many of the ideas expressed in *Daedalus* were not originally his, Reed (1969) asserts that Haldane "deserves great credit for having stated them" in a popular forum and that "they must have been influential in molding present-day thought and the acceptance of biological advances of the future" (p. 233). Just as *Star Trek* inspired many engineers, inventors and scientists to create gadgets or technology that were portrayed in the various franchise series and movies, *Daedalus* was a muse to other optimists and opportunists, especially those progressive-era disciples of the hereditarian persuasion.

So what were those biological advances of the future that Reed deigns to focus on? One of these, as one would expect, is genetic counseling for genetic disorders; coupled with the recently available medical service of legalized abortion (first in restricted circumstances, before the regulatory gates were thrown-open by the U.S. Supreme Court in *Roe v Wade*), as a more modern and selective alternative to forced contraception or compulsory sterilization for carriers of known genetic diseases. But Reed also predicts that voluntary sterilization will become an important part of family planning, well before the popularity of vasectomies took-off in the boom years of "Liberal Eugenics" (Agar, 2004). He also discussed the eugenic possibilities of artificial insemination and "genius sperm banks" (pp. 236, 237), such as the *Repository of Germinal Choice*, as it was then being formulated by geneticist Hermann J. Muller and supported by physicist William Shockley for long-term biological improvement, if and when "eugenic selection becomes more important than natural selection" (p. 242). These and other bio-technological advances opened the way for the positive eugenics of the future, under other names.

But Reed (1969) also addressed negative eugenics, primarily in his repeated warnings of "the large threat to man's future which could prevent eugenic progress of any kind, that is, the problem of the birth rate" (p. 235). Reed discusses the dire concerns by international bodies such as the Club of Rome over rapid global population increases, as developing nations around the world became industrialized and implemented public health and medical services that dramatically altered the balance between birth and death rates. This replicated the same debate faced decades before in most of the Western world, but now on a wider geographical and compressed time-scale:

Gradually, people are beginning to realize that in the practical sense we are witnessing an extraordinarily serious excess of births over deaths. It is clear that the present rate of population growth cannot continue for very many more generations and that our birth rate will have to be checked in various ways. One would hope that this will occur as the result of a universal attitude of responsible parenthood... We must now thwart the tremendous pressure of fertility which natural selection has provided us with such success. (p. 235)

For Reed (1969), the “secret of success” rests with “that ugly word propaganda” (p. 235).⁵⁰ He cautions that for success, the “small family propaganda has to be more subtle than ‘Prevent Forest Fires,’ but it is of much greater importance and the government has ever-increasing opportunities for influencing the subconscious” (p. 235), under another name than eugenics. He points to great successes in places like India, where “415,000 sterilizations were performed in 1965 and that about 550,000 intrauterine devices were inserted in the same year” (p. 235), dwarfing the efforts by the Nazi’s in their initial efforts to combat the menace of feeble-mindedness and the genetically unfit. Reed doubts that Americans are likely to control their own numbers as a response to the global problem, but asserts that the State will accomplish the same ends through the use of carefully crafted propaganda relying on a subtle form of cultural coercion (as predicted by Galton a century before) using the popularized memes of eugenics:

It is probable...that the government will introduce propaganda, somewhat more subtle than a meat-ax, which will suggest that the small family is the only way of life, not because the government says so, but because your friends, relatives and neighbors say so. At present in the United States, large families are often an intentional bid for prestige (proof of virility), or the result of sloth in regard to birth control, or the price of failure to use such techniques. In the future a couple can anticipate that they will be considered either ignorant or careless if they have a large family... Social pressure is a powerful force and can be expected to assist in curbing the birth rate in both literate and nonliterate societies. (p. 236)

So for eugenicists of successive generations from Galton, through Haldane to Reed, Osborn and their contemporaries and successors, “subtle” persuasion by propaganda was the key to eugenic progress, under any banner. Thus, a proto-form of applied memetics could be argued to be operating, years before Richard Dawkins gave name and form to the practice of meme control, dissemination, and cultural evolution. And just as with biological Darwinism, it was always an ongoing struggle to stay ahead of reactionary or opposing memes, either by popular and/or formal education; or by the simple expedient of replacing outdated or disgraced terms, like ‘race-hygiene,’ in the wake of the Nazi experience, or ‘compulsory eugenics’ in post-WW II America, to more friendly euphemisms like ‘global population control’ and ‘family planning.’

⁵⁰ It was interesting to again see this defense of “propaganda” by the remnant eugenics establishment, as was also done repeatedly in both *To-day and To-morrow* (for instance by C.P. Blacker in *Birth Control and the State*, 1925, in Appendix III) and people like Florence Brown Sherbon in her ‘Popular Education’ columns in the pages of *Eugenics* (see next chapter). Although ‘Propaganda’ was already taking on an increasingly negative popular connotation in the Interwar-era, its critical functions as a form of meme dissemination and control, were universally used by various organizations and governments from America, to Nazi Germany, to Stalin’s USSR, and all points in between.

After explaining the likely methods to employ positive and negative eugenics in the present and near future, Reed (1969) attempted to make a long-range forecast, up to a thousand years hence, in the style of the *To-day and To-morrow* series, with the template of *Daedalus* as his guide. His most urgent priority is to combat the “population rampage” (p. 239) in the developing world. He declared the need for “eugenic progress is less urgent,” but cannot be ignored because that would be “irresponsible and betray their posterity. As Muller once said, ‘We are but the genes’ way of making more genes’ ” (p. 239).⁵¹ This passage illustrated in a nutshell the continued strong hereditarian bias of the reform eugenics school that replaced the Nordicist strain of eugenics in the 1930s and 40s, and even in its transition to the “liberal eugenics” of the 1970s and beyond (Agar, 2004). This trend largely replaced unpopular compulsory means with financial or social enticements to gain voluntary acceptance. A version of these schemes was also proposed by physicist-turned-eugenicist William Shockley and his compatriots in the late 1960s (Tucker, 1994); for instance offering cash payments to poor inner-city men or women to undergo voluntary sterilization (see Appendix II).

Reed (1969) advocated an extended eugenics campaign to increase intelligence through eugenic marriage selection (or artificial insemination by ‘genius sperm’) as an avenue that is most likely to succeed and be widely supported by both scientists and the bulk of the population. He offered support from Lewis Terman’s infamous studies of intelligence at Stanford, especially those that concluded the children of matching high-intellect parents showed less “regression towards the mean...indicating that a significant gain in the genetic basis of intelligence is possible if society wishes to make such a gain, which fundamentally it must” (p. 241).

Reed concluded with a “few farfetched speculations concerning presently imaginable eugenic products of the distant future” (p. 242), which paralleled some of the bold predictions for bodily biological advancement R. C. MacFie had expressed in *Metanthropus, or the Body of the Future* (1928); many of which became staples in science fiction, even the original *Star Trek* series then on TV:

It seems reasonable to think that directed mutations could be produced which broaden the range of reaction of a person to many kinds of stimuli. It should be advantageous for each of our descendants to perceive both longer and shorter wavelengths of both light and sound. Perhaps special sense organs will develop to warn of the presence of radioactive material. Perhaps man will evolve some useful form of long-distance communication—a kind of selective and strengthened extra-sensory perception of distant objects, similar to television. All this is fiction now, but everyone is aware that much of the science fiction of one hundred years ago is reality today. Who knows what is possible for human evolution when eugenic selection becomes more important than natural selection in population dynamics. (p. 242)

⁵¹ This quote from H.J. Muller comes from his 1965 treatise, *The Control of Human Heredity*, and seems to presage Dawkins’ concept of the *Selfish Gene*; or, when translated to human societies, even hints at the *Selfish Meme*.

There were no echoed predictions for Haldane’s ectogenesis (despite the fact that Haldane’s predicted timeline for the arrival of this innovation had been reached), or for other similarly radical advances in human reproduction; nor even a suggested mechanism for the kinds of directed mutations that Reed predicted (or the prehensile-tailed MacPhersons that Haldane had alluded to). But in the same way that Reed ignored the failure of Haldane’s fantastic predictions to be realized, Reed may be forgiven for the failure of his more farfetched prognostications fifty-years later. Figure 3-9 below summarizes some of Reed’s updated memes and clusters based on new possibilities.

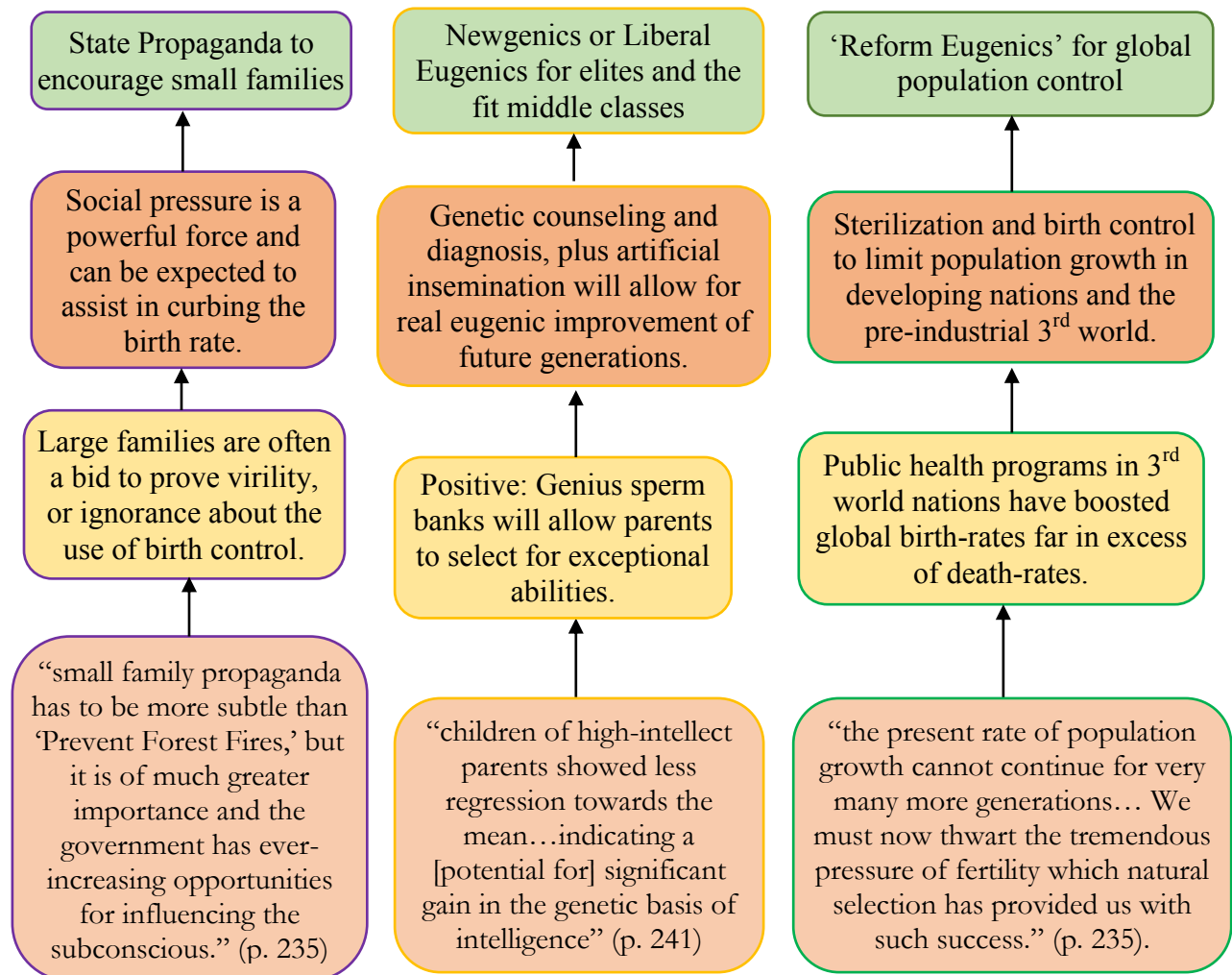


Figure 3-9: A partial meme-map for Reed’s “A New Eugenics,” showing three major memplexes for managing global society in a more rational and progressive manner.

The more important point for my purposes here is that even when the American eugenics movement was at its low-ebb in the late 1960s during the so-called counter-cultural revolution (a revolt against the sort of organized society based on WASP values of eugenic and moral progress in

the American style), the memes for eugenics were still present. These memes were undergoing a rebranding to genetic counseling, human genetics, socio-biology and demography and a repurposing to international population control and ‘liberal eugenics’ (Agar, 2004). Renowned academics like Reed, Muller, and Shockley continued to advocate for more education (or propaganda in Reed’s parlance) to disseminate and shape the memes for human improvement, under whatever banner or brand-name had the greatest chance for popular up-take and mainstream success. This latter-day echo of eugenics in the Interwar period will be examined further in Chapter V.

But this generation of eugenically-motivated scientists was to be the last in America that could operate openly and transmit their memes ‘in the clear.’ Although others continued the movement, notably Herrnstein & Murray’s and their best-seller *The Bell Curve* (1995), eugenics was now a *verboten* term (see end section of Appendix II for details on these latter-day disciples of hardline eugenics). Surrogate euphemisms were employed to avoid the charges of fascist eugenics or biological determinism by the popular press, academic community and scientific establishment. But even with the toned-down rhetoric and reliance on proxy or ‘dog-whistle’ terms, books like *The Bell Curve* received sharp responses from the critics. It prompted Stephen Jay Gould to update his classic *The Mismeasure of Man* (1981) in 1996 to dissect the kind of statistical fudging and finagling employed in Herrnstein & Murray’s research; just as Gould (1981) had already done for Samuel Morton’s cranial capacity measurements and Sir Cyril Burt’s notoriously ‘fudged’ twin-studies.

So, by the final decades of the 20th Century, eugenics as an organized science was on terminal life-support and appeared headed for virtual extinction. But at the same time, bold new discoveries in genetics, embryology, physiology and a whole host of cutting-edge specialties was reaping the fruits of a new surge in State and corporate funding for the biotechnology revolution; the Human Genome Project being the most obvious example. Once again, the memes of biological progress and human betterment were back in the news, and in popular and formal education. Biology textbooks featured special sections highlighting these ‘Newgenic’ technologies and their potential for medical miracles and futuristic human progress. Significantly, these ‘new’ memes were being offered without contrasting context or mention of the abuses of American eugenics and Nazi race-hygiene.

And with a new crop of science-fiction movies and television shows (even a ‘New Generation’ of *Star Trek*) bringing these bold new predictions to virtual life, the *Zeitgeist* was ripe for a new generation of fans to be infected by these old memes, especially when they were clothed in form-fitting spandex, in the beguiling guise of Borg Drone turned Trans-human sex-symbol ‘Seven-of-Nine.’ By then the Internet had evolved to breed and grow these memes, bringing them back from the verge of extinction to thrive in a new meme-pool with myriad new possibilities for exploitation.

Memetic Summary and Series' Legacy of Haldane's *Daedalus*

In the premiere of the *To-day and To-morrow* series, *Daedalus* (1924) forged a memetic mold, lasting far beyond the demise of the series, to the last vestiges of organized eugenics in America in the 1970s. Haldane even heralded the advent of 'newgenics' (Kevles, 1995), like a 'John the Baptist' of the 1980s Biotechnology Revolution. Haldane's optimistic vision of a future utopia evoked a newgenetic Garden of Eden and inspired his latter-day disciples to strive for the biotechnological possibilities of a golden future. In the responses of Bertrand Russell (1924) or other contemporary critics, and extending forward to the next-generation of disciples like Dr. Sheldon Reed (1969), eugenics was alternately portrayed either as a progressive Darwinian outcome of man's Promethean struggle against his own animal nature; or as a cautionary morality play of the kind of punishment Mother Nature dispenses for the hubris that led to Icarus's 'downfall' in Greek tragedy.

The other series volumes reviewed and analyzed here, as well as those relegated to Appendix III, fleshed-out and expanded upon the memes and science-technology-science themes introduced in the initial pairing of *Daedalus* and *Icarus*. While most subsequent authors picked one side of the hereditarian (eugenics)/environmental (euthenics) memetic divide, others tried to bridge the gap, like H. S. Jennings' *Prometheus* (1925 - profiled in the next section); or went even further ideologically afield to Lamarckism in W. R. Brain's *Galatea* (1927), or neo-Vitalism in Macfie's *Metanthropos* (1928). Some authors, like Norman Haire's *Hymen, or the Future of Marriage* (1928), or Godwin's *Cain, or the Future of Crime* (1928), specialized in a specific aspect of eugenics or euthenics dogma, switching back and forth between hereditarian and environmentalist worldviews to treat the subject from both angles. Thus, a devotee of the series who read all the relevant volumes would be treated to the full-spectrum of all the popular and even fringe memeplexes of human progress and evolution, in a progressive display of democratic Darwinism and secular-theology in the Interwar meme-pool.

The next section of this chapter details the first contribution to the *To-day and To-morrow* series by an American author, the renowned geneticist Herbert Spencer (H. S.) Jennings. As mentioned already, Jennings was the only author in the series who intentionally and consciously spanned the conceptual divide between hereditarianism and a cautious support for eugenics, while also giving voice to rival euthenics and environmentalism, sometimes even butting-up against the threshold of Lamarckian inheritance of acquired characteristics in humans. That border-crossing, as we will later witness, did not win Jennings a lot of admirers when he strayed from the preferred camp of the partisan critics on both sides of the hereditarian-environmentalist divide; but both camps found something to praise, when the encapsulated memes suited their own confirmation bias.

The ‘Reform Eugenics’ of H.S. Jennings’ *Prometheus*

Prometheus, or Biology and the Advancement of Man (1925) marked the first contribution by an American author to the *To-day and To-morrow* series. As expected from the title, it references eugenics, and offers some cautious, limited support; but *Prometheus* is one of the first works that would qualify as “Reform Eugenics” as coined by Daniel Kevles (1985, Chapter XI), and echoed by a wave of scholars in the 1990s, in the memetic wake of his seminal *In the Name of Eugenics*. *Prometheus* backed-away from the strict hereditarian dogma of earlier eugenics texts by American biologists, and advocated for a shifting of equilibria towards a balanced consideration of environment and heredity, or nurture and nature in the case of man. Refer to the series’ promotional reviews and title-page below in Figure 3-10.

Herbert Spencer Jennings’ contribution followed in the footsteps of the early eugenically-themed titles in the series: J. B. S. Haldane’s *Daedalus* (1923), F. C. S. Schiller’s *Tantalus, or the Future of Man* (1924), and F. G. Crookshank’s *The Mongol in our Midst* (1924). Jennings only makes two very brief (and quite literal) allusions to the mythological character in the title. But his point of view is closer to the watching gods, rather than Haldane’s enthusiastic admiration of the title character, and it should be noted that Haldane discussed Prometheus and his future role in a scientifically-rationalized society (in *Daedalus*) in considerably greater detail than Jennings.

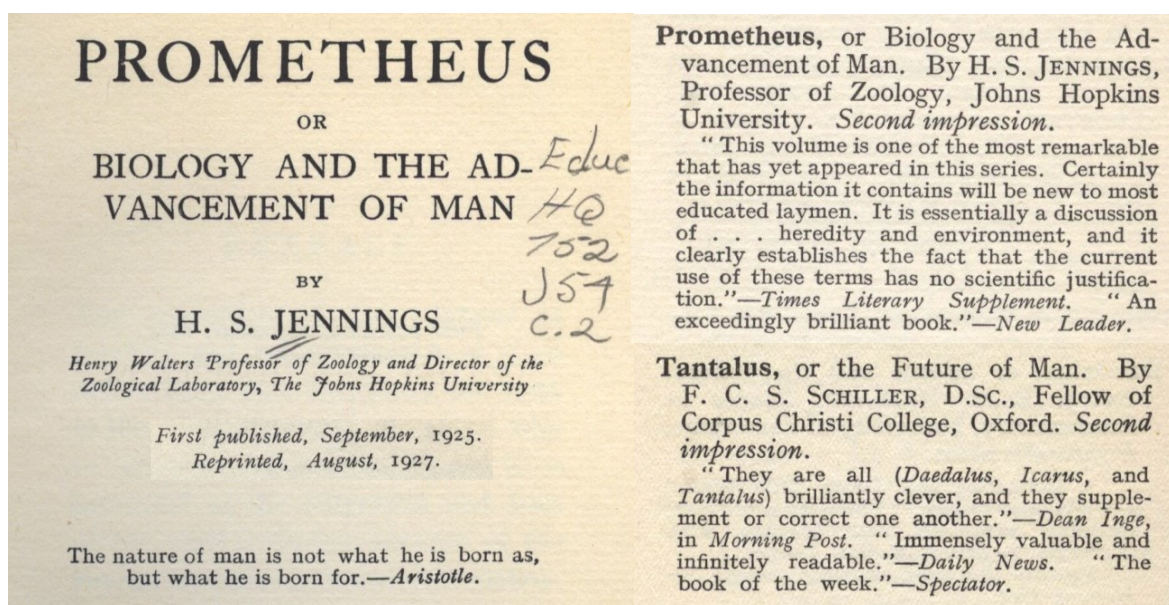


Figure 3-10: *Prometheus* title-page showing H. S. Jennings’ credentials and hinting at his ‘Aristotelian’ environmentalist philosophy, in promotional reviews for it and Schiller’s (1924) ‘Platonic’ series-partner. Whereas Schiller was a strict hereditarian concerned with rampant racial degeneration, Jennings tried to bridge the nature-nurture memetic divide and modernize the science underpinning eugenics. Note this book has an Education Library call-number, rather than Science & Technology.

Unlike his given names' name-sake, Herbert Spencer (1820-1903), Jennings was a proto-environmentalist, lacking the firm hereditarian bias of his British forebears like Spencer, Darwin, Galton; or contemporary American eugenicists like C.B. Davenport, or William Castle. But his understanding of human genetics was superior to all of these men, despite the lack of a Nobel prize, a cultural 'ism,' or a knighthood. Jennings has been cited as an important milestone in the "retreat from scientific racism" (Barkan, 1992, pp. 189-209) as one of the first biologists to question the scientific validity of eugenics dogma, despite his tepid support for eugenics as prudent social policy.

Memetic Map of *Prometheus*

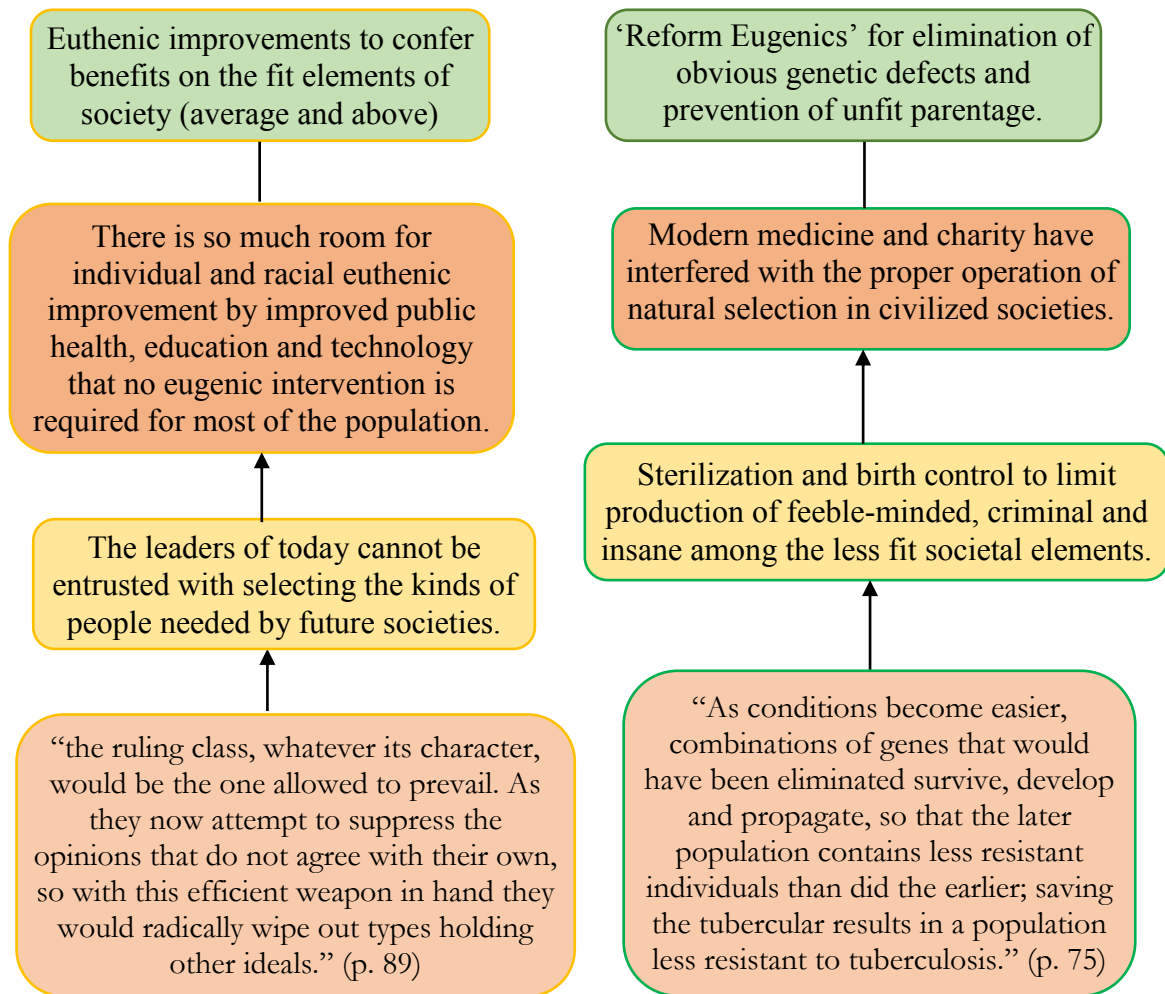
As alluded to previously, Jennings' contribution to the series was the premiere by an American, and the first to seriously admit a major role for environment in phenotypic development (at least until the release of the explicitly neo-Lamarckian *Galatea* in 1927). Jennings' attempt to bridge the hereditarian-environmental divide was later hailed as the first real scientific opposition to eugenics (Barkan, 1992). However, while he was critical of the use of outdated genetic lore and oversimplified Mendelian concepts, such as 'unit characters' to describe complex interactions of many genes, Jennings remained a supporter of eugenics as a matter of social policy. Jennings explicitly rejected the Nordicist strain of racial-eugenics, but he still supported negative eugenics for the obviously feeble-minded or congenitally diseased, and he in no-way granted equality to all non-White races.

While Jennings can be regarded as a critic of the more egregious abuses of genetics in support of eugenic dogma, he did not reject the movement outright and remained a cautious supporter of what became known as "reform eugenics" (Kevles, 1985, pp. 164-175). His expressed views in *Prometheus* not only illustrated the reform eugenics memplex, but also the limits of this reform within the hereditarian worldview (Barkan, 1992, pp. 177-188). Jennings' criticism of the efficacy of negative eugenics to eliminate undesirable traits from the gene-pool in a practical time-span was matched by his pessimism for the prospect of positive eugenics making substantial improvements over a similar timespan. This pessimism was based on biological science and the practical constraints of sexual reproduction, rather than any religious devotion or secular commitment to human rights.

Jennings was an empiricist, in the style of T.H. Morgan's his famous *Drosophila* lab at Columbia, but he spent his entire career at Johns Hopkins after graduating Harvard in 1896 with his doctorate (Barkan, 1991). His rhetorical commitment to only espousing grounded empirical evidence was not always borne-out in his pronouncements in *Prometheus*, but it is revealing that he refrained from the trend of prophesying the future beyond the cutting-edge of scientific knowledge of his own time.

Just as was done for Haldane's *Daedalus*, Figure 3-11 below highlights some of the major memetic elements for hereditarian eugenics (on right), and some of Jennings' pronouncements on the efficacy of euthenics, or the potential of social reforms to produce cultural progress (on left).

Dual Track of Euthenics and Eugenics Solutions in Jennings' *Prometheus*



Color Codes: Memeplex Larger meme-cluster Smaller meme-cluster Sample meme(s)

Yellow borders – euthenics Green borders – reform (non-racial) eugenics.

Figure 3-11: A euthenic-eugenic meme-map for Jennings' *Prometheus*, showing his commitment to a memetic balance between biological heredity and environmental improvements. Like Haldane and especially Bertrand Russell, Jennings expressed considerable doubt about entrusting human improvement or rational societal progress in the hands of politicians, religious leaders, capitalists and industrialists. Instead, scientific experts and broadly-based democratic decisions should guide and authorize the direction of human improvement.

Re-evaluating the Boundaries of Heredity versus Environment

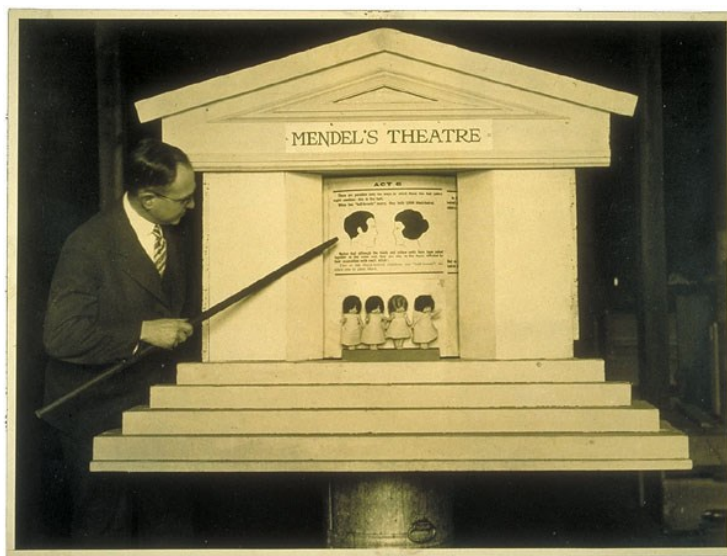
In his short preface to *Prometheus*, Jennings began by acknowledging that his “exposition of the relations of heredity and environment... differs from that frequently set forth in the name of genetic science” (p. 5). This was certainly true when compared to early American geneticists like C.B. Davenport (*Heredity in Relation to Eugenics*, 1911) or W.E. Castle (*Heredity and Eugenics*, 1912) whose seminal texts were as much primers on eugenics as they were genetics texts (See the ‘Historiography of Eugenics’ in Appendix II). Jennings insisted that *Prometheus* is “the outgrowth and fruit of the most orthodox genetics of the straitest sect of experimental Mendelism,” (p. 5) rather than the musings of some anti-eugenics crusader or environmentally-minded social reformer. He denounced “inspired thinking” (p. 6) over experimental evidence, and pledged to always stay within the bounds of empirically determined facts. He apologized for the simplistic conclusions of early eugenic science as being primitive attempts to fit the observed facts (the inheritance patterns of simple Mendelian genetics) into some obvious pre-existing theoretical social theory (social-Darwinism, racial anthropology and its derived ‘scientific-racism’ of the late 19th and early 20th Centuries). Jennings stressed that new experimental data were rapidly making the old genetics underpinning ‘hardline eugenics’ hopelessly out-of-date, anticipating a scientific revolution in a pre-Kuhnian sense:

Theory and facts become hopelessly at variance, yet they continue to exist side by side in a single framework. Such has been the course of the science of genetics. The hen of Mendelian theory has hatched a brood of swans. She would fain claim them as her own, but they have lost all semblance of chicks. (p. 7)

Like many other authors in the series, including J. B. S. Haldane, Jennings also expressed hope that the fatal folly and grand human tragedy of the Great War would spur a renewed impetus to the reform of Western society, with the explicit hope that the science of biology could promote the requisite nature-nurture shifts for a peaceful future world, after politics, religion and naïve isolationism had thus-far failed. Then he asked whether similar biological principles as have been employed in the breeding of new highly desirable varieties of domesticated plants and animals could be applied to man for the elimination of undesirable inherited traits, and his answer betrayed his limited support for eugenics for the first time:

[For] all agree that it is more desirable to be normal than deformed or feeble-minded. There is, indeed, a great series of grades, from the fool up to Shakespeare: though as to the ranking of the intermediate grades, no consensus can be traced. (p. 19)

Chapter II: “The Biological Background” began with a long expose on recent genetic research showing the impact of environmental conditions on the inheritance of characters. He rejected the primacy of hereditary or environmental determination offering that: “it is always the combination that has to be considered” (p. 14). Jennings summarized Mendelian inheritance in reproduction, but with a consistent focus on his thesis of environmental dependence. In this pre-DNA age, he used the analogy of a vast chemical laboratory with thousands of reagents in containers on many shelves, which reacted in long sequences under a given set of physical conditions to produce a particular result. He also posited a genetic “double-serial arrangement like a pair of strings with beads” (p. 17) and followed the “packets of chemicals” from the parents to the new offspring, emphasizing the simple statistical patterns for the distribution of these packets into gametes and then their recombination in the next generation. He even predicted that future schools would have a mechanical model for Mendelian heredity, just like models of the solar system were a staple of school science-education. This prediction was soon born-out with the American Eugenics Society’s popular exhibit: ‘Mendel’s Theatre,’ which toured state-fairs and other exhibitions to teach the American public the basics of genetics from a hereditarian standpoint to evangelize for eugenics, shown in Figure 3-12 below.⁵²



American Philosophical Society. Noncommercial, educational use only.

Figure 3-12: The mechanical instructional technology known as *Mendel's Theatre* being operated and demonstrated by Leon Whitney, executive secretary and popular educator for the AES, circa 1926. (See Chapter IV for an exposition of Whitney’s writings in *Eugenics* and his roles with the AES)

⁵² *Prometheus* was also discussed by Dr. Florence Sherbon in her Popular Education column in *Eugenics* (1928-31), as an exemplar of popular education on heredity for the layman. Sherbon offered a limited defense to Jennings’ criticism of eugenicists for oversimplifying human heredity, but accepts his critique that popular eugenics education as lagging behind the latest scientific advances. See the section on Popular Education in *Eugenics* in Chapter IV.

Jennings hailed the ongoing contributions of T. H. Morgan and his associates in their classic experiments on *Drosophila* (fruit-flies) in establishing the rules and patterns of Mendelian inheritance, but especially for elaborating the crucial role of environment on certain inherited characteristics, like eye-colour. Eye-colour had previously been used by biologists like C. B. Davenport, as metaphors for the surety of genetics over social factors in human heredity (see section on Davenport in Appendix II). Jennings pleaded for the abandonment of the ‘unit character’ that was still a staple in the eugenic conception of such complex conditions as feeble-mindedness, criminality, and sexual licentiousness. He explained the biological fallacy of unit characters, both from a consideration of the numerous genes required for even the simplest phenotypes (like eye-colour in *Drosophila*) and the importance of ambient conditions during development on the final outcome, and used this new data as proof for the old “adage that a little knowledge is a dangerous thing” (p. 25). He took aim at the hardline advocates of eugenics, like Davenport, and their doctrine of the primacy of pre-ordained heredity, as being representatives of a dying creed that has outlived its time as a creditable science:

[W]hat he should be was pre-ordained; predestination, in the present world, was an actual fact. Environment might prevent or permit the heredity characters to develop; it could do nothing more. Heredity was everything, environment almost nothing. This doctrine of the all-might of inheritance is still proclaimed by the popularizers of biological science. But this theory or representative particles is gone, clean gone. Advance in the science of genetics has demonstrated its falsity... The doctrine is dead—though as yet, like the decapitated turtle, it is not sensible of it... Neither eye-colour, nor tallness, nor feeble-mindedness, nor any other characteristic, is a unit character in any such sense. There is, indeed, no such thing as a “unit character” and it would be a step in advance if that expression should disappear. (p. 25, 26)

An extended discussion follows, on how the fallacy of the unit characters arose in early genetics experiments; where one mutant or alternate gene in an entire group of genes involved in a particular trait was the only difference between experimental groups and thus the alternate phenotype produced was assumed to be due to a single gene. In fact, the complex interaction of dozens of genes was required to produce the results, along with a particular set of environmental conditions. Most of Jennings’ examples dealt with *Drosophila* in T. H. Morgan’s lab, or one of his many students.⁵³ Jennings attacked one of the more common fallacies of unit characters, the problem of feeble-mindedness:

⁵³ Morgan’s notable students included Hermann J. Muller, who later won a Nobel Prize for research on the effects of ionizing radiation for producing mutations and Muller was also a supporter of a brand of reform eugenics. See review of W.R. Brain’s *Galatea* (1927) in Appendix III for more on Muller and his complicated connections to eugenics.

Feeble-mindedness appears to be inherited at times as a “unit character”; although nothing can be more certain than that hundreds of genes are required to make a mind—even a feeble mind. It is not surprising that absence or alteration of some one necessary chemical should leave the mind imperfect... Doubtless feeble-mindedness is produced in hundreds of different ways—some sorts heritable according to one set of rules, others according to other sets of rules. (p. 32)

Heredity is not the simple hard-and-fast thing that old-fashioned Mendelism represented it. Further, more attentive observation has revealed that any single [gene] affects, not one characteristic only, but many; probably the entire body. The idea of representative hereditary units, each standing for a single later characteristic, is exploded; it should be cleared completely out of mind. (p. 33)

One of the practical implications of this new understanding of the complexity of heredity in even the simplest organisms was to make the subject of human improvement by positive eugenics almost impossible. Even predicting who should be banned from marriage or targeted for negative eugenics became a far greater challenge than conventional eugenicists had ever cared to admit, except in those rare instances where both parents shared the same identifiable defective gene. After making this point several times, Jennings again delved into the complexity of the interaction between genes and environment: during cell division and gamete formation, during early development, and even during the later life of an organism, asserting that: “development, it turns out, is a continual process of adjustment to environment” (p. 42). He described the intricate interplay of genetic factors with cytoplasm, oxygen and other required simple chemicals, the profound impact of hormones or other secretions, and the multivariate ways that the surrounding environment can alter phenotypes in a variety of simple organisms, from *Drosophila* to amphibians. Much of Jennings’ teaching here would later be classified as cytology or cellular physiology. He enthusiastically predicted that in the future, human manipulation of the interplay of non-genetic chemicals during development would offer as much promise for remedying the ills of heredity as eugenics. He foreshadowed a sort of proto-gene-therapy that would again arise with the advent of ‘newgenics’ (Kevles, 1987), but he stopped short of Haldane’s radical prophecy of vastly superior ‘ectogenic’ babies in *Daedalus* (1923):

Already men have learned to draw off these chemicals from one individual and introduce them into another, so altering profoundly its development. Already they have manufactured certain of these products of the genes. How far may this go in a thousand years? The fact that in the products of the chromosomal genes we are dealing with chemicals that can be made, modified and moved about, as other chemicals are, opens an unlimited field for progress in the control of development. There is no *a priori* reason why anything that may be done by a chemical produced from an individual’s own genes may not be done equally by a chemical introduced in some other way. Shortcomings due to defective genes are essentially as subject to supplement and remedy as are other defects. (p. 46, 47)

Jennings used this future possibility to advocate for a re-evaluation of what is meant by heredity or inherited characteristics versus environmental characteristics. He provided additional examples of experiments with *Drosophila* and other organisms, where changes in environmental conditions produced results that are indistinguishable from genetic changes, or mimicked a known genetic result. His ultimate example for the radical potential of “environment in altering the totality of the organism, its entire personality” (p. 53) came from the then ground-breaking experiments with the freshwater *Axolotl* (a type of Central American salamander), and its phenotypic alter-ego: the land-dwelling *Amblystoma*, once assumed by biologists and laymen to be an entirely different species. If the mere presence of abundant water could produce such radical changes as the presence or absence of external gills, or webbed-feet and flattened tail versus lizard-like claws and slender tail, this evidence called for a holistic reconsideration of what is inherited and what is environmental:

Here we have two extremely different sets of inherited characteristics; which one shall appear is determined by the environment under which the organism develops. If “hereditary” means dependent for development on peculiarities of the germinal constitution (the sense in which it is employed) both sets are hereditary. If “environmental” means dependent for development upon peculiarities of the environment, both sets are environmental. Any characteristic requires for its production both an adequate stock of chemicals and an environment adequate for its production through proper interaction of these chemicals with one another and with other things. In these senses all characteristics are hereditary and all are environmental, but no characteristic is exclusively hereditary or exclusively environmental. (p. 55, 56)

It was at this point that Jennings broke his promise not to extrapolate from one organism to another, especially from simple organisms to humans. He again professed that man’s inheritance is more complex than any other, yet he immediately jumped to a curious analogy between the ‘primitive-looking’ Axolotl and an uneducated man, and the “Amblystoma and an educated one” (p. 57). He asserted that “the educated man has characteristics very different from those he would possess if uneducated” (p. 57) and argued these characteristics are just as inherited as other acquired characteristics that would appear over the course of a man’s life. All depend on both the innate characteristics of a man’s germinal constitution and the environment under which he develops. He enlisted Aristotle to justify his nuanced conception of heredity influenced by environment, using the master to validate his paraphrasing to argue for a new doctrine of human potentiality:

The teachings of genetics may be summarized in Aristotle’s saying [also quoted on the frontispiece] – “the nature of man is not what he is born with, but what he is born for” – paraphrased perhaps into the form “the inheritance of man is not alone what he is born with, but what he can develop.” (p. 58)

Jennings explained the paradox of calling certain characteristics, like education, as acquired rather than inherited, was due to “certain practical difficulties, not in any difference of principle” (p. 59). It was the relative difficulty of intervening in human development (or any mammal) during pregnancy, as compared to the relative ease of manipulating internal and external environment in *Drosophila* or other simple organisms developing as external fertilized eggs, which created an artificial distinction between inherited and acquired traits. Jennings returned again to simple organisms that could be radically altered *in vivo* at the egg or larval stage, giving additional examples in fish, to then argue for the inclusion of the characteristics acquired in the education of man as being inherited. He performed a multi-generational thought experiment on the long-term effects upon many individuals with an identical education, to prove his contention that even something like education should actually be subsumed into a new conception of heredity, which his more conventional contemporaries hailed as a clear example of a non-inheritable environmental characteristic. But Jennings used this opportunity to distance his stance on extended heredity from that of more ardent neo-Lamarckian advocates, in this rather agnostic footnote:

* Obviously, nothing in the text relates to the effect of education on the descendants of the educated person; that is say, to “the inheritance of acquired characters.” The propositions set forth are equally valid whether there is or is not such effect on the descendants. (p. 62)

He elaborated his expanded sense of the inherited, actually a multitude of possible inheritances under environmental influence, and again repeated his prior assertion that “man is the creature that has the greatest number of possible heritages,” within limitations that “cannot be stated from general biological principles or from what we know of any other organisms; they can be discovered only by concrete studies of man himself” (p. 63). Thus, Jennings allowed the use of experimental data extrapolated from simple organisms like fruit-flies and salamanders to buttress his arguments for man’s future development potential under new environmental conditions (euthenics), but he rejected data that would limit this development, or uphold the validity of the strict hereditarian dogma of rivals like Davenport. In other words, Jennings had his rhetorical cake, while eating it too.

Jennings concluded this long chapter, first with an appeal to the medical establishment to embrace the new field of medical genetics to alleviate disease and other inherited disorders. He also castigated Davenport by name for perpetuating the common fallacy among practitioners that inherited conditions are beyond the pale of “purely impersonal medicine” to treat (p. 65). He also accused immigration restriction advocates in the United States (especially people like Madison Grant) of the same hereditarian fallacy, and charged that “It is particularly in connection with racial

questions in man that there has been a great throwing about of false biology” (p. 65). Several popular racial questions were discussed in the context of his new conception of the environmental mutability of heredity and the interdependence of both on development in man, before asking the fundamental question of the primacy of eugenics and eugenics and the potential of each for the advancement of man: “Are the differences between men due more to heredity or to environment?” (p. 70). His answer reinterpreted the racial anthropology of F. G. Crookshank and the xenophobia of Madison Grant, with a plea that resonated with the eugenic advocacy of Franz Boas and his environmentalist school that was then ascendant in America:

If we compare ourselves with our ancestors of 10,000 years ago, [the differences] are mainly due to environment—if it is correct, as generally admitted, that the fundamental constitution of the stock has not appreciably changed since that time. If the comparison is of ourselves with the Bushmen of South Africa, possibly the differences are mainly due to heredity. If the comparison is between the diverse races of Europe, or between the individual citizens of the United States, the answer is to be obtained only from a much greater amount of precise study, with critical statistical treatment, than has yet been made; and there is reason to think that it would signify little when reached, since it would be merely an average of a very great number of individual comparisons...Certainly the answer is not to be deduced from any alleged biological principle that the characteristics of organisms are due to heredity and not to environment. (p. 71, 72)

In fact, both sides of the debate were already engaged in empirical studies of this very question, from Davenport’s (1929) hereditarian-motivated research into “Race-mixing in Jamaica,” to Boas’ eugenically-motivated study of the changes in head-shape of the children of Italian immigrants to America (Spiro, 2009).

The Advancement of Man: Punctuated Eugenic Equilibrium or Hereditarian Gradualism?

Having thus meticulously set-up the ‘Biological Background’ over the course of sixty pages, Jennings (1925) devoted the final chapter of twenty pages to the “Advancement of Man” (pp. 73-94). He repeated his mantra that environmental factors affect the “manifold alternative inheritances” of man to a greater extent than any other animal (p. 73). He also argued that there is so much room for individual and racial eugenic improvement by improved public health, education and technology that no eugenic intervention is required, using the example of the rapid transformation of Germanic tribes from primitive barbarians to masters of the globe over the course of written Western history. Again, he cautioned biologists and philosophers that scientific knowledge of the ant or oyster cannot be reliably applied to man; only careful study of man himself can be considered relevant, despite

many non-human examples that he had already used to support his primary thesis. He offered a disclaimer that an exclusive eugenics approach was not a panacea, contrary to the naïve claims some early eugenicists had made for eugenics as the universal cure to modern social ills. This non-ideological stance was later emulated by Florence Brown Sherbon in her ongoing attempts to produce a reform eugenics catechism for the laymen readers of *Eugenics*, as detailed in Chapter IV.

Jennings then turned to the thorny issue of racial deterioration as a result of modern medicine and civilization. At first, he seemed to echo the hardline memes about the dysgenic effects of charity and modern civilization in Schiller's *Tantalus* (1924), or H. J. Muller's later warnings about the danger of accumulated mutations (Carlson, 1981). He admitted that "environmental changes have another class of effects: through their selective action they alter the constitution of later generations" (p. 75):

As conditions become easier, combinations of genes that would have been eliminated survive, develop and propagate, so that the later population contains less resistant individuals than did the earlier; saving the tubercular results in a population less resistant to tuberculosis. (p. 75)

However, Jennings shrugs-off the dogmatic pessimism of his hardline hereditarian rivals. So although he admitted elimination by natural selection has been curtailed, he pointed to the ultimate social reform of Prometheus bringing fire to the service of man as being more significant than any other eugenic intervention, and yet subsequent generations of humans survived and thrived. He argued that it is equally possible that modern civilizational improvements have improved the "vigour of later generations" by improving the "well-being of the bodies" that carry our immortal genes, and "augmenting the well-being and staying-power of the race" (p. 76).

But then he dropped his hammer, and clearly showed his overt support for the more drastic measures that targeted the most reviled members of society, thus exposing the "limits of traditional reform" eugenics in the slow, cautious "*Retreat of Scientific Racism*" (Barkan, 1992, Chapter 4):

On the other hand, there are a few social practices that recognizably and directly work toward racial degeneration; these should obviously be stopped. Such are the freedom and encouragement of reproduction among the feeble-minded, the criminal, the insane. But it is a far cry from these to the inventions that have improved the lot of mankind. (p. 78)

Jennings immediately added a caveat that such "negative and palliative measures, directed against the obviously pathological, leave untouched the futility, incompetence and unreason that have of late brought gigantic disaster" (p. 79), castigating the foolishness of men of power that resulted in the dysgenic destruction of the Great War and the global instability that followed.

After throwing this rhetorical damp-towel on the ultimate possibilities of negative eugenics, Jennings turned to the opportunities presented by a “positive eugenic programme” (p. 79). He hailed the immense but capricious repository of genes held by the vast numbers of undistinguished, ‘normal’ people; some crosses yielding desirable individuals, some undesirable. But his support for positive eugenics was even more tepid than his limited support for negative eugenics options in the most dire cases. Positive eugenics was hamstrung by the biological realities of sexual reproduction.

Jennings elaborated the central difficulty of improving a population by sexual reproduction, using examples from agriculture and horticulture in improving domestic plants and animals. He pointed to the breeding methods used by orchard owners to selectively improve their varieties of fruit, and analogized the human race to grapes hanging in great bunches. Predicting which individual grapes would give rise to an improved variety was an impossible task, dependent on far too many factors for eugenics or current genetics to predict the results of sexual reproduction:

Thus we find that, in all organisms, some of these combinations produce fruits that are better fitted to the prevailing conditions of life than others. Some in man are vigorous, sensible, efficient, valuable to themselves and others. Others are defective, weak, foolish, worthless, injurious to themselves and to others. What the eugenicist desires to do is to save, propagate and multiply the good combinations, letting the poor ones disappear. (p. 82)

The problem was sexual reproduction itself. In many plants and lower animals, cloning or vegetative reproduction by asexual budding can be used with a rigorous artificial selection program to achieve a specific type of organism with definite characteristics that will propagate indefinitely through multiple generations, leading to a monoculture of the desired type(s). But in man there is no way (short of realizing Haldane’s radical prophecies) to control the assortment and recombination of genes in the next generation, except by resorting to widespread infanticide of the less-desirable offspring produced. He implicitly acknowledged Galton’s concept of ‘regression towards the mean’ (without giving credit to its originator) and lamented the limits this placed on any eugenic breeding program, even using Buddhist philosophy to illustrate the ultimate futility of this paradigm:

So, though in lower organisms the valuable types may be directly saved and propagated, this cannot be done in man. The genes must continuously change their combinations, now producing a superior individual, now a commonplace one, now an inferior one:

“Only while turns the wheel invisible
No pause, no peace, no stopping place can be;
Who mounts will fall, who falls may mount—
the spokes go round unceasingly. (p. 86)

Jennings traced the original memetic expression of the futility of this scheme back to Ecclesiastes, and while he sympathized with the eugenicist's progressive mission, he argued that so long as sexual reproduction is our only means of propagating the race, the dream of race improvement was naïve. He offered no enthusiasm for this dream ever being realized, implicitly ignoring Haldane's optimistic prophecy. Instead, he enlisted Bertrand Russell's overt pessimism in *Icarus* (1924) to question, even if it were possible to make radical changes, whether the results would be not be perverted by the capricious and selfish whims of the ruling elites, resulting in a memetic monoculture of obedient sheeple in uniform rows of unremarkable worker-drones:

Of course, he would then come squarely against the question as to what kind of individual should thus be allowed to multiply and inherit the earth. There is little doubt that, as Bertrand Russell* suggests, the ruling class, whatever its character, would be the one allowed to prevail. As they now attempt to suppress the opinions that do not agree with their own, so with this efficient weapon in hand they would radically wipe out types holding other ideals. With the capitalist class in complete possession, the world would become uniform, doubtless more comfortable; certainly less entertaining as a spectacle. The unexpected, the exciting, the amusing, the melodramatic, would disappear. With this would go poetry, art, literature. The human orchard would consist of well-trimmed fruit trees in set rows, each bearing a crop of succulent fruit. (p. 89, 90)

Surprisingly, given his statements about the efficacy of environment to induce changes and the great diversity produced by sexual reproduction, Jennings did not reject this scheme based on the inherent long-term biological undesirability of a monoculture, but on humanistic factors alone. Jennings alternatively asked whether eugenicists might “substitute uniform excellence for extreme and heterogeneous variety?” (p. 91). Beyond the difficulties of choosing what human type(s) should prevail and the impossibility of predicting precise individual results, he allowed for the possibility of a slow, marginal improvement in the population as a whole, by barring the most undesirable adults from reproducing and greatly stimulating the best and brightest to prolific parenthood. He repeated the assertion that genius and extreme talent will always be rare, so that a large majority of mediocre individuals will always prevail, and some will even replace the lower-end of Galton's bell-curve in each successive generation. Thus, as long as humanity relied on normal sexual reproduction, the best that could be hoped-for from conventional eugenics was a perpetual holding action.

Jennings concluded the book with a paragraph that briefly recapitulated his overall pessimism for conventional eugenics and the ultimate Sisyphean futility of expecting Utopia to come from conventional human reproduction, however tightly it might be controlled:

But whatever eugenic measures are attempted, so long as biparental inheritance is kept up, the variety, the surprises, the perplexities, the melodrama, that now present themselves among the fruits of the human vine will continue. Capitalists will continue to produce artists, poets, socialists and labourers; labouring men will give birth to capitalists, to philosophers, to men of science; fools will produce wise men and wise men will produce fools; who mounts will fall, who falls will mount; and all the kinds of problems presented to society by the turns of the invisible wheel will remain. They may be softened by improvement of conditions, by increase of knowledge, and perhaps by selective eugenics; but they will not disappear so long as biparental reproduction continues. (p. 93, 94)

Jennings' opposition to the oversimplified scientific claims of hardline eugenics became more mainstream as time went on. But his continued conditional support for eugenic solutions to social problems was also typical of many scientists and medical doctors involved in institutionalized eugenics programs, long after Jennings had exposed the scientific fallacies and oversimplifications that reform eugenics was based upon (Barkan, 1992; Kevles, 1985). This illustrates the power of an established memplex, or in this case an institutionalized scientific paradigm to persist, even after rival paradigms gain traction. Refer to Figure 3-13 below for a view of some of the limits to reform eugenics Jennings expressed in *Prometheus*:

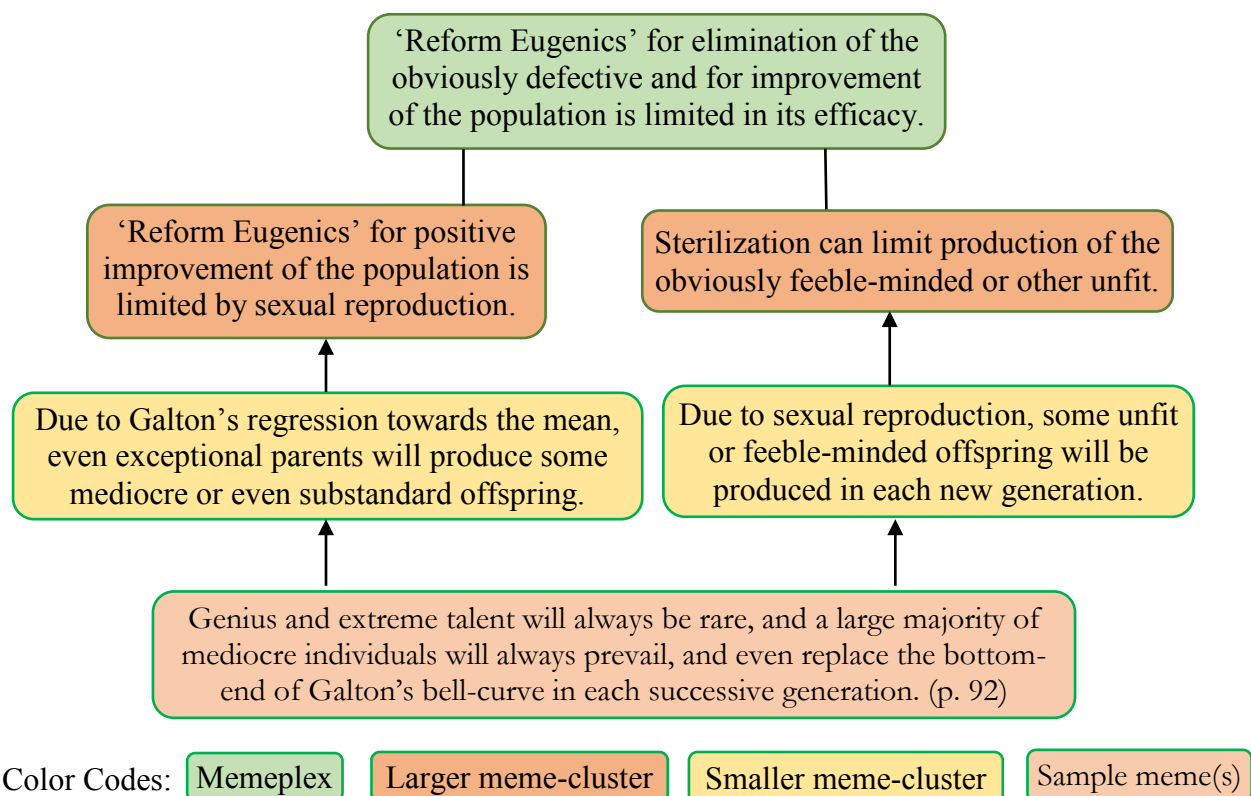


Figure 3-13: The limits of Reform eugenics for both positive and negative programs are constrained by sexual reproduction and the natural variation and recombination of gametes in meiosis.

Contemporary Reviews and Final Promethean Thoughts

Two period reviews of *Prometheus* survive, representing both sides of the hereditarian (eugenics) versus environmental (euthenics) divide. Rather than praising Jennings for bridging the gulf between the rival camps, both reviews offered acknowledgement of Jennings' support for their own partisan position, but both took exception to his departures from their own paradigm and worldview. This illustrates the action of meme-filters, essential for a stable memplex to defend against hostile memes or clusters (Figure 2-1 and 2-2 in Chapter 2). The first review, in Figure 3-14a below, was a curt, one-paragraph blurb. It reflected the euthenic mainstream of American social-science at this time, personified by the Boasian school of cultural anthropology (Spiro, 2009), and comes from E. B. Reuter (1926) in the *American Journal of Sociology*:

Prometheus or Biology and the Advancement of Man. BY H. S. JENNINGS. New York: E. P. Dutton & Co., 1925. Pp. vii+86. \$1.00.

The importance of this little volume is out of all proportion to its size. In it Professor Jennings shows the inadequacy of the genetic conceptions at the basis of the eugenic programs and other schemes of racial improvement. Particularly valuable at this time are his exposition of the relation of heredity and environment and his exposé of the fallacy of generalizing in regard to human heredity and human behavior on the basis of data gained from the study of other organisms. The only points to which the reviewer takes exception are those where Professor Jennings lays himself open to the accusation of being guilty of the very errors that he warns against: the incidental assumption (p. 70) that criminality is a biological phenomenon and (p. 71) that the troubles of humanity are due to the presence of individuals possessing an unfortunate combination of genes.

E. B. REUTER

UNIVERSITY OF IOWA

Figure 3-14a: *Prometheus* review in the March 1926 issue of the *American Journal of Sociology* (Univ. of Chicago), echoing the euthenic Boasian-school then ascendant in the social-sciences. (p. 692)

Meanwhile, in the London-based *Eugenics Review*, Jennings' *Prometheus* prompted a full three-page review by biologist Sir A. M. Carr-Saunders, then Secretary of the British *Eugenics Education Society* (see Figure 3-8b below). The reviewer offers praise for Jennings' "lucidity, charm and literary skill" (p. 298) in dealing with the biochemical mechanisms of heredity, and for inclusion of popular eugenics topics, but Carr-Saunders is decidedly unhappy with their treatment. Jennings was harshly castigated for his misleading efforts to explain the hereditarian-environmental nexus to the layman. Carr-Saunders feared Jennings was offering aid and comfort to the scientifically-ignorant enemies of

eugenics; namely the social reformers and other neo-Lamarckian advocates, who would be able to cherry-pick from Jennings' ideas for their own propaganda purposes. This mirrored Florence Brown-Sherbon's (1930) critique of *Prometheus* in the AES journal *Eugenics* (see Popular Education section of Chapter IV), but was even more harsh and unforgiving. See Figure 3-14b below for the first and last paragraphs of the contemporary review, acting as rhetorical book-ends for the hardline eugenic worldview, appearing in the January 1926 issue of the *Eugenics Review* (pp. 297-300):

**Jennings, H. S. *Prometheus or Biology and the Advancement of Man*.
London, 1925. Kegan, Paul, Trench, Trubner Co., Ltd.
Pp. 94. Price 2s. 6d.**

It has long been evident that there is a desire on the part of the public to believe in the inheritance of acquired Characters. A biologist who produces evidence tending to support this conception is sure of a hearing. An almost equally easy way of winning public approbation is to show that heredity is of little account in comparison with environment. Already Professor H. S. Jennings' little book in the *To-day and To-morrow* series is receiving favourable comment from journalists in the daily press. Here is a well known biologist they say in effect whose opinion demands the utmost respect from his fellow workers. Has he not shown up the hollowness of the eugenic case? What more need is there now to consider heredity as a factor in human affairs? Under these circumstances it would seem appropriate that the recent expression of the views of such an experienced and eminent worker in the realms of biology as Professor Jennings should receive attention here.

"It is not true that what an organism shall become is determined, foreordained, when he gets his supply of chemicals or genes in the germ cells, as popular writers on eugenics would have us believe." We are not concerned here to defend 'popular writers on eugenics' in general or these views in particular. But it may be asked who is the more misleading, those who make these statements or Professor Jennings who writes a book which must leave the impression upon the mind of most readers, first that heredity is of little importance in producing differences between men to-day, and secondly, that the offspring of the better endowed are no more likely to be well endowed than the offspring of the poorly endowed?

A. M. CARR-SAUNDERS.

Figure 3-14b: First and last paragraphs of a rather scathing review of *Prometheus*, in the January 1926 issue of the *Eugenics Review*, contributed by biologist A.M. Carr-Saunders, then the Secretary of the *Eugenics Education Society*, publisher of this long-running British journal. (pp. 297-300)

This divergent reaction from the twin-solitudes of the nature-nurture debate is common in the period literature, especially the ardent struggle for public attention between mainline eugenicists grounded in biology, and the Boasian-school of social-reform environmentalists then ascendant in the social-sciences (Spiro, 2009; Witkowski and Inglis, 2008). More significant to this observer is that this gulf has remained, virtually unbridged between today's memetic descendants of these two historical camps, illustrating the power of meme-filters to defend established positions.

This ideological gap still applies to the rejection of, or resistance to memetic theory as a derived paradigm of neo-Darwinism by ‘obligate environmentalists’⁵⁴ in the social sciences or humanities (Dawkins 1986), despite exponential progress in genetics, biotechnology, and even the advent of interdisciplinary paradigms that blend the natural-social sciences with the humanities.

What *has* changed since *Prometheus* is the increased popularity of these alternative paradigms in the Zeitgeist for the layman of today, from ‘nerdy’ biology-based science-fiction (like *Star Trek*) in which futuristic eugenics (including ‘cloned’ versions of Haldane’s ectogenesis) is a popular recurring theme, to the rival neo-Lamarckian ‘fantasy’ literature and multimedia portrayals; or the frequent movie and television portrayals of radical ‘human advancement,’ without ever using the labels of eugenics or euthenics, or how these differ. The raw memes of ‘human improvement’ or enhancement have survived and thrive in popular culture, and today’s advocates on both sides of the nature-nurture divide are still ‘educating’ the public, but usually without any overt reference to their philosophical origins, or previous historical incarnations. In today’s lingo, these memes have ‘gone viral’ to reach a mass audience that Prometheus never could have even dreamed about. This author’s own introduction to eugenics as a child, through the exemplar of ‘Khan’ (Ricardo Montalban) in the original *Star Trek* series is a personal testament to the perennial popularity of the eugenic ‘superman’ meme in popular culture. This rebooting of popular memes will be revisited again in Chapter V.

From this expose of Jennings’ attempt in *Prometheus* (1925) to bridge the gap and reconcile the hereditarian-environmental divide, this chapter will next migrate North to Canada. Another *To-day and To-morrow* author (George S. Godwin) underwent a rather startling memetic conversion, on a par with a neo-Lamarckian transformation, due to a change of physical and cultural environment, after moving from colonial British Columbia back to London. The memetic journey of this chapter begun by Haldane (1923) at Cambridge, having jumped ‘the pond’ to Jennings (1925) in America, now flies North like the migrating Canada Geese, and then back across the pond to London. Godwin’s (1928) ideological evolution and marked changes in expressed memotypes is the memetic analogue of a great biological migration, and he will serve as an exemplar of how one’s established memplex or worldview is subject to change with radically altered social environments.

⁵⁴ Compare to ‘obligate anaerobes’ (such as in a septic tank) that cannot tolerate any oxygen, versus those tolerant anaerobic organisms who can thrive in normal atmospheric conditions. Obligate environmentalists (or confirmed neo-Lamarckians) reject memetics based on its grounding in Dawkins’ neo-Darwinism and a general aversion to biological determinism of any kind in human culture and progressive democratic society. But the action of meme-filters is just as effective in non-believers, perhaps made even more so by denying their existence. (Compare this secular exemplar to the old cliché about the Devil’s greatest trick was in getting fools to deny his existence and thus doom themselves to eternal damnation – another illustration of the same defense mechanisms of established paradigms or worldviews.)

A Memetic Transformation from *Columbia, or the Future of Canada* to *Cain, or the Future of Crime*, in the *To-day and To-morrow* Series

Published in 1928, *Columbia, or the Future of Canada* was the second contribution to the *To-day and To-morrow* series by author George Stanley Godwin (1889–1974), son of the renowned British architect of the same name. His first book for the series: *Cain, or the Future of Crime* (1928) will be reviewed right afterwards for its extensive eugenic content. The seeming ‘reverse-order’ in their consideration here is intended to preserve the original chronology of the historical subject matter, and thus the author’s memetic development between his two volumes.

Although *Columbia* contains racial-memes and what would now be labelled xenophobic slurs, there is no explicit mention of eugenics or race-hygiene in this volume. This is essentially reversed in *Cain*, where eugenics and social-Darwinism is a dominant theme, but there is almost no mention of non-WASP minorities or the kinds of racial stereotyping featured in *Columbia*. It is primarily for this memetic transformation, almost a reversal of worldviews, that I selected these twin titles. Godwin’s memetic metamorphosis, coming after H. S. Jennings’ appeal to elevate environment as being at least equally important to genes, is as good an empirical endorsement for Jennings’ main thesis as any evidence provided in *Prometheus*. This dramatic change in memetic messaging and the fact that *Columbia* deals with Canada and its relationship with America and the British Empire, makes this volume worthy of examination to supply contrast to *Cain*, where eugenics was a going concern.

During his time in Canada (1911-1920), Godwin lived in British Columbia. *Columbia* was written while recovering from tuberculosis at the Arrow Lakes sanitarium, located at a widening of the Columbia River in the interior Lower Mainland, hence the title. Indeed, his whole perception of Canada is heavily skewed by his west-coast residency and the prevailing attitudes of Western Canada before 1920. At the time, the population was small, sparsely settled, largely rural, and almost completely Caucasian, outside of isolated, scattered Aboriginal reserves. It was also before prodigious oil and gas discoveries transformed the economy and before rising trade with and immigration from the Pacific Rim made Vancouver a thriving cosmopolitan metropolis.

Much of *Columbia* is a screed against the railways, the petty clerks, Federal bureaucrats, and the entire Eastern elite that irked Western pioneers and ‘old-stock’ settlers to no end. This is not the main subject of this review, but it was revealing to see how the ‘western alienation’ memes that flared again in the oil-bust of the 1980s and after the latest world oil-price crash, were already present in the second decade of the 1900s. It was, therefore, not surprising to see numerous Conservative pundits on social-media arguing for the same kind of union with America after Trump was elected, even for an armed insurrection to overthrow the Liberal government of Justin Trudeau.

Godwin began *Columbia* by discussing the imperialist bias of the metropole (London) to the daughter-colony (Canada), and the widening political and ideological gulf between the Imperial centre and the far-flung colonies, as time passed. He asserted that Canada, especially in the West, had become so ‘Americanized’ that it was only a matter of time before Canada joined the United States. Godwin later prophesied 1953 as the year “the Federation of North American States as self-governing states” was formed, after “Battleships flying the flag of the Rising Sun, appeared off Vancouver” (p. 82, 83). Large portions of the book are an explanation for the inevitableness of this union and a lengthy justification of the political/social merits and economic/racial benefits. It will come as no surprise to ‘old timers’ in Alberta that this old meme has never really died. It blossoms in the meme-pool at irregular intervals, usually whenever an economic recession or oil bust coincides with a Liberal regime in Ottawa, like during the long tenure of Pierre Trudeau as Prime Minister.

Race and Immigration in Western Canada

Godwin also devoted a significant portion of *Columbia* to the racial composition and immigration patterns of Canada, from Quebec to the West coast, covering everything from politics and religion, to family size and racial qualities of the new immigrants and old pioneers. Godwin largely echoed Madison Grant’s *Passing of the Great Race* (1916) heralding the decline of Anglo-Saxon dominance, and presaged Grant’s *Conquest of a Continent* (1933), in detailing waves of settlers expanding Westward and the changing ethnographic makeup, especially in the prairies and mainland of British Columbia.

Godwin alternately echoes and departs from his contemporaries, like Emily Murphy and her racial loathing of the Orientals on Canada’s west coast, with muted praise for their frugal and industrious way of life, but harbors suspicions of their high birth-rates and unassimilable nature:

Your Japanese has rooted objections to birth-registration and birth control (p. 36)... The Chinaman presents another angle to the problem. He is hard-working, honest and inoffensive. His ambition is to amass money and return to the Celestial Land of his ancestors (p. 37)... Ultimately the two conflicting civilizations will have to settle the matter of which is to survive: White or Yellow (p. 38).

But, whereas Grant despised the ‘Alpine’ Slavs (Ukrainians, Russians, Poles and eastern Jews) contaminating Anglo-Saxon Protestant America and lionized the Nordics of pioneer stock; Godwin reverses this bias with a disdain for the effete and cultivated British aristocrat or middle-class urban functionary, and praised the new wave of Prairie immigrants of “hardy Slav of peasant-stock with the rough sheepskin coat and big, broad wife” (p. 88), who worked as hard as her husband.

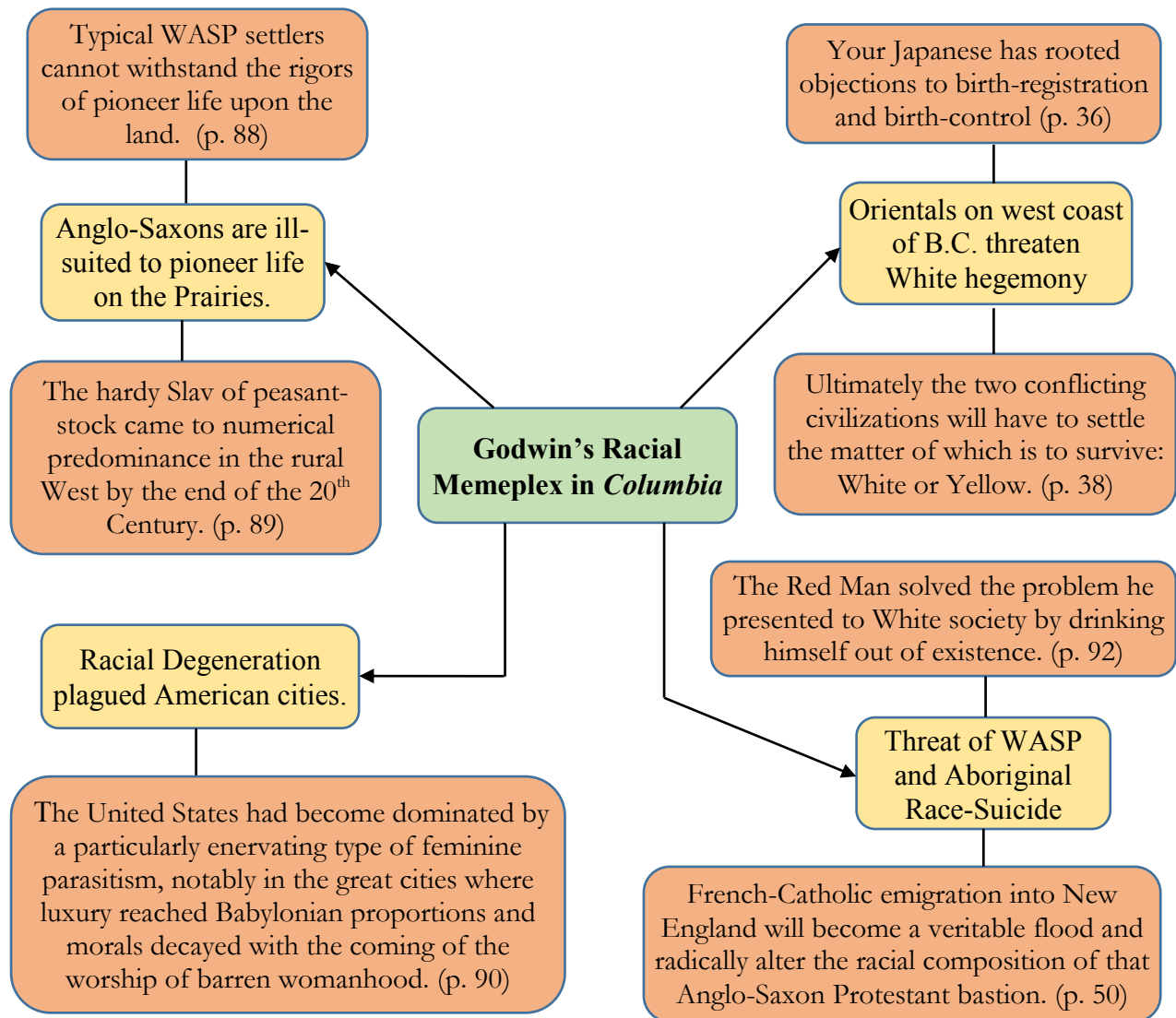
Along with “Mr. H.G. Well’s time machine” (p. 80), Godwin used the allegorical descendent of this Slav peasant, Professor of History Ivanovitch Koshkareff, of the University of Saskatchewan, and author of *United America: A Retrospect* (Kegan Paul: *To-Day and Yesterday* Series), to forecast the future of Canada as part of the United States of North America (U.S.N.A.), from the vantage point of 2030. This same literary device for predicting the future, even the references to H.G. Wells as a prophet, was also used by J. B. S. Haldane in *Daedalus* (1923), although Godwin one-ups Haldane by making his oracle a professor, rather than a mere undergraduate student. It is here that Godwin’s imagined timeline begins to unravel into a future that never was. Godwin’s fictional Slavic professor turns through the pages of his retrospective scholarship, adding, editing, perfecting and exposing his ‘history’ to the reader:

The Professor reads on, page by page, his massive Slav features impassive and noble. Peering over his shoulder we learn how the inability of the British-born Canadian to withstand the rigors of life upon the land resulted in the numerical predominance by the end of the twentieth century of the ‘man in the sheepskin coat with the big, broad wife’. He traces the rise of the Agrarian Movement until it became the most powerful political force in the country. (p. 88, 89)

Godwin makes no explicit mention (or prediction) of eugenics, such as compulsory sterilization or segregation in western Canada, despite the fact that *Columbia* was published in the same year (1928) as Alberta’s pioneering sterilization legislation was first passed into law (Grekul, 2007). This is partly explained by Godwin’s return to England in 1920 after recovering from Tuberculosis, eventually becoming a noted author and raconteur of his earlier Canadian adventures. It would appear that Godwin wrote much of what became *Columbia* while he was still living in Canada, before eugenics became a prominent movement in Western Canada, and before his own memetic paradigm shifted upon returning to London (see section on *Cain*), with its radically different cultural milieu and meme-pool. His racial pronouncements in *Columbia*, raw memes about non-Caucasians (but not disparaging of non-Nordic Whites) likely reflect the influence of the local Nativist meme-pool.

Godwin also predicted that French-Catholic emigration from Quebec into New England would become a veritable flood and radically alter the racial-religious composition of that former Anglo-Saxon Protestant bastion. This was also postulated by Madison Grant (1916, 1933) and several authors in the AES Journal *Eugenics* (see the Immigration and Legislation section of Chapter IV for more iterations of this common WASP ‘race-suicide’ meme). A variety of explicit racial memes expressed by Godwin in *Columbia* are illustrated in Figure 3-15 on the next page:

The Racial (but non-Nordicist) Nativist Memes in Godwin's *Columbia*



Color Code: Meme clusters Memes or small clusters (Blue borders indicate racial content)

Figure 3-15: A partial meme-map for the racial memes and themes expressed in Godwin's *Columbia*. Although Godwin seems not to have assimilated the Nordicist strain of race-hygiene popular in America at this time, he still employed a variety of racial memes to convey the relative value or uselessness of several races living in Western Canada during the period he spent living in British Columbia before and during World War I.

Godwin Predicts a Great Agrarian Revolution and the Abandonment of Cities

Godwin's prediction of the 'Great Agrarian Movement' is one of the most memetically striking and unique elements of *Columbia*, for its eerie foreshadowing of Maoist ideology, especially the 'Cultural Revolution' of the 1960s, and the brutal 'killing fields' of the Cambodian Khmer Rouge in the 1970s (Dikotter, 2010, 2016). This is even more remarkable because Godwin's speculative forecasts were contemporaneous with these actual 'spontaneous' cultural movements on the other side of the world and reflected the cultural divide between 'White and Yellow' he identified (p. 38). Whereas Britain and the American Eastern Seaboard had been urban and industrial for some time, much of America's heartland and most of Canada west of Toronto was still predominately rural and agrarian. After a predicted rapid urbanization of the West, with the consequent mechanization of agriculture and daily life, spurred by great scientific-technological advances, there was a sudden memetic shift, as our fictional Slavic professor revealed from the pages of his 'prophetic history' text:

He describes the great Back-to-the-Land Movement, when the urban population left the cities, many of which were in a condition of semi-ruin following the collapse of monstrous skyscrapers, and returned to the land. We are given vivid pictures of the decline of old Quebec, of the decay of Montreal, Winnipeg, as the stream poured from overcrowded slums to the fertile prairie. (p. 90)

We learn how in pre-union days the old United States had become dominated by a particularly enervating type of feminine parasitism, notably on the great cities where luxury reached Babylonian proportions and morals decayed with the coming of the worship of barren womanhood. He tells how the new Americans were seduced for a time by this pernicious cult, became dual slaves of parasite wives and daughters, until the return to sanity and the 'big, broad wife'.

We are told how, following the denudation of the forests of old America and the reckless dissipation of her natural resources and the destruction of the mortgage-embarrassed and insolvent agricultural community, and the collapse of the Gold Standard, following the great gold finds of Northern Ontario, the political centre of the Republic shifted from Washington to Regina. (pp. 90, 91)

Godwin's rejection of decadent civilization and romantic praise of farmers and the rural stock of the nation was also a common thread in the 'folk-eugenics' of Fascist Italy (see my coverage of the *People* magazine article on 'Fascist Eugenics' in the last section of Chapter IV for details on this), and also in those Eastern-European nations (such as Croatia, Hungary, Romania) that were strongly influenced by Imperial German (and later Nazi) race-hygiene (Weindling, 1989). These countries became Nazi satellites and eventually mimicked the Nazi race-hygiene pogroms and mass-killings during the 'total ideological war' on the Eastern Front (Brandon & Lower, 2006; Turda & Weindling, 2007; Solonari; 2010). This praise of pioneer old-stock WASPs was also broached in

American eugenics to highlight the degenerate influence of urbanized non-Nordic immigrants, as will be documented from the pages of *Eugenics* and *People* in Chapter IV, especially in the Immigration department coverage and the final section on the End of *Eugenics/People* magazine. In Godwin's case in *Columbia*, this agrarian movement more closely resembled a rapid neo-Lamarckian shift, as advocated by Lysenko, Stalin, Mao and Pol Pot than an example of Fascist Eugenics or *Rassenhygiene*. Unfortunately, Godwin's fictional Slavic Professor did not deign to describe the type of government that ruled the United States of North America after the agrarian revolt, so we can only speculate as to the motivating memes or worldview of the revolutionaries who launched the revolt.

While Godwin made many other bold predictions for a future Canada that did not come to pass, one final 'retrospective' racial insult is offered here in regards to the 'future' downfall of Canada's Aboriginal people. Godwin conveniently blamed the Jesuits who had converted them from their naturalistic paganism and even abetted their internal exile to the reservation system, allowing the colonizers to essentially ignore them:

The Red Man, as we know, ultimately solved the problem he presented [white society] by drinking himself out of existence in the comfort of those spacious reservations that had been secured to him by those fine old Jesuit missionaries." (p. 92)

This memetic conversion or transformation of the author between *Columbia* and *Cain*, from the 'non-scientific' raw racial Nativism of colonial British Columbia to the class-based but non-racial eugenics then dominant in London, makes the Godwin pairing a worthy choice for this study. I was unable to find any period reviews of *Columbia*, unlike *Cain*, for which I found quite a few online. The lack of any contemporary reviews for *Columbia*, or any record of subsequent reprinting's of the volume indicates this title was not a big commercial success.

Godwin's prognostications for Canada were not an isolated effort. *Columbia* was soon followed by *Achates, or the Future of Canada within the British Empire* (1929) by eastern scion Eric Harris. *Achates* was more conventional in its future forecasting, and offered an 'old-stock' WASP perspective on many issues. As for Godwin's future after leaving Canada, he found a new profession as a writer of fiction and biographies of Canadian greats, and became something of an establishment figure after his more famous father died. His other series publication, *Cain, or the Future of Crime* (1928) was so different in tone, attitude and its expressed sympathies for eugenic doctrines, that it is hard to believe the two books were written by the same person. Perhaps by returning to Britain from *Columbia*, he was memetically transformed in the same way as the hardy pioneers who had colonized the Western prairies, but in reverse. It is to the Crime of Cain, that my presentation turns to next.

***Cain* and the Criminal Sins of the Unfit**

Whereas *Columbia* contained no overt references to eugenics, nor any mention of eugenic sterilization, segregation, or the downfall of society due to rampant degeneration or reproduction of the unfit, *Cain* contains numerous explicit references to all these and more. If one had read these two works without any identification of author or date of publication, one would be hard-pressed to reconcile the two works as being by the same person and published in the same year. See the mini-reviews for *Cain*, used as promotional advertising for the series, in Figure 3-16 below:

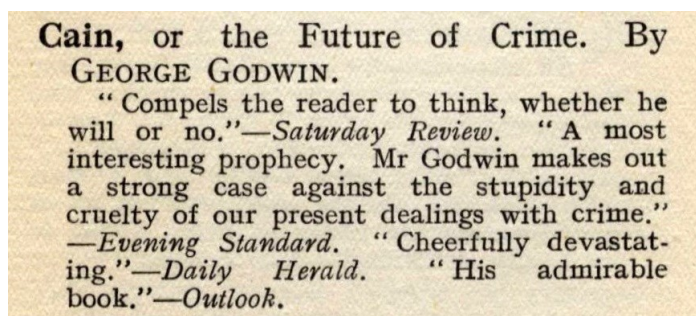


Figure 3-16: Excerpts of critical reviews for *Cain*, used in promotional advertising for the series.

Cain begins with a quote about progress from Samuel Butler's *Erewhon* (Nowhere backwards), an 1872 satire on Victorian society set in this mythical land that is superficially a sort of Utopia; in which crime is considered to be a disease to be treated rather than punished, and the criminal cured rather than executed or locked-up for life as society's revenge for their crimes. For Godwin, part of that cure involves psychological rehabilitation for the redeemable. However, for the seriously defective, there is no logical choice but elimination and disposal. In Godwin's own words:

[F]antastic as that view of the problem [crime] may seem, it is, in a word, the ultimate solution of it. What follows is a plea for the recognition of this fact, after which the problem then falls naturally into three parts: the physical cure, the mental cure, and the disposal of the irreclaimable human material. (p. 5)

Godwin took the stance of a liberal progressive and moral relativist in dealing with staid Victorian morality, suggesting fresh approaches to controlling crime and the reformation of the justice system. But, when it came to protecting future society from the evils of racial degeneration and the hereditary transmission of vice, he was as hardline as any confirmed eugenicist or old-time Methodist Minister giving a fiery sermon to his flock. He distinguished between arbitrary criminal statutes and the focus on revenge in the existing justice system, held-over from archaic religious

taboos, versus the ‘natural law’ of protecting society from evils not covered by current legislation. He argued that the ultimate focus of *juris prudencia* should be on the future impact to the race of an individual’s behavior:

Again in England to-day, it is a crime to marry two women; but it is not a crime for a syphilitic father to beget children of an epileptic mother. In this indifference to unnatural crime we are no better than the Hindu, who sees no offence in giving the ten-year-old child to the venereally infected middle-aged husband. Yet the man who marries two wives injures the community in no way, but may, on the contrary, actually confer a benefit upon it by enriching it with a large number of physically and mentally superior children. (p. 12)

Godwin provided several examples of seemingly ‘cruel and unusual punishment’ meted-out in societies of antiquity to preserve the fitness and capacity of the race, such as ancient Sparta, or in Aristotle’s *Politics*. Though shocking to the ‘misguided’ Victorian euthenic reformers, these ‘Spartan-values’ sought to establish a rational basis for the actions of the State, and the laws it enforced. He hailed eugenic efforts and legislation in America to combat feeble-mindedness, epilepsy and hereditary criminality, boasting that “in 1921 more than 2000 defectives were sterilized” (p. 13). As evidence for the threat of “the appalling consequences of the unrestrained fecundity of defectives” he provided a chilling statistical table showing the ongoing intergenerational “Harlotry of the Jukes Family” (p. 14), and lamented the inability of conventional legal statutes and procedures to stop these crimes against nature. He argued that in the future, “the test of crime” should be its “effect on the community of to-day, but also upon the race” of to-morrow (p. 15).

Godwin flirted with Cesare Lombroso’s 19th Century anthropological research characterizing and classifying various ‘criminal types.’ While he recognized the potential for science in solving the societal woes of crime, he admitted “the truth [is] that there is no criminal type” (p. 19). He dismissed the empirical methods of physical anthropology to identify the problem-types, but argued that “there is plenty of data to suggest a correlation between certain physical attributes and particular types of offense” (p. 19). He saw the major problem as being that crime statistics track those who were unsuccessful, rather than those who mastered a particular criminal enterprise and thus remained at large to continue their life of crime.

A reliable diagnosis of criminality was not to be found in “physical stigmata,” but in some “mental abnormality” or “the collapse of moral resistance under excessive strain” (p. 20). The solution was to be found in the “science of psycho-analysis” and the “new field of psychopathology” (p. 20). Before fully exploring this progressive approach, Godwin detoured to a historical analysis of the theory of punishment, the woeful record of prisons in turning out hardened

recidivists rather than reformed citizens, and the critical task of distinguishing the reformable from “The Irreclaimables” (p. 31). He offered these prescriptive predictions for the future possibilities of psychopathology methods and eugenic technologies:

The irreclaimable delinquent of to-morrow will receive a lot of attention, but it will be unwelcome attention. But as for the majority of delinquents, let them take heart of grace: the coming of the psychopathologist need have no terrors for them. He brings nothing but boons... Crime is the disease of the social body; degeneracy is the disease of the race. Crime can be controlled whenever scientific methods of prevention and cure replace the existing crime-breeding prison-system. Degeneracy can also be controlled; but in another way. Crime springs from many causes, but, above them all, one is predominant: it is the steady tide of delinquency that flows from the degenerate and his brood. (p. 31)

Godwin lamented that eugenic segregation of these delinquents is but a prophylaxis, not a cure, but nonetheless a dire necessity due to the sentimentalist public’s shirking “on humanitarian grounds” from serious consideration of “sterilization or painless elimination” (p. 32). In a prophetic passage that would become reality in twenty years, not in England, but in Nazi Germany; Godwin argued for a new collective perspective and re-definition of humanitarianism, one that would be adopted by the ‘Heredity Courts’ of Nazi racial-hygiene pogroms. Godwin used Hippocrates, Holy Scripture and Shakespeare as testimonial witnesses for his case, and even echoed United States Supreme Court Justice Oliver Wendell Holmes, writing for the majority in the precedent setting test-case *Buck vs Bell* (1926), which established the constitutionality of compulsory sterilization legislation:

Yet the justification for the elimination of the degenerate is based solely on humanitarian considerations. If human life be indeed sacred, then the life-stream of the race is sacred above the lives of individuals must be safeguarded from the transmitter of the damaged germ-plasm. It is the sacrifice of the living few for the unborn multitude. Extreme remedies are appropriate for extreme diseases, said Hippocrates, and Shakespeare, sharing the thought: (p. 32)

Diseases desperate grown
By desperate appliances are relieved
Or not at all. (p. 32)

It is the offence of certain members of the community that they have been born at all. The sins of the fathers are visited by the gods upon the children. Ruthless elimination is the remedy. (p. 33)

Godwin again employed agricultural metaphors (weeds vs good wheat), eugenical facts and criminal statistics to testify to the threat of the “appalling fertility” (p. 33) of the degenerate and the feeble-minded, and offered the “Spartan remedy” for the dual evils of rampant degeneracy and the

‘race-suicide’ of the best strains of society, which essentially encapsulated Francis Galton’s (1904) view for the necessity for of both positive and negative eugenics:

Opponents of the Spartan remedy should bear in mind that along with this multiplication of the sub-men proceeds the voluntary sterilization of the superior citizen. The best strains are being cut off or reduced: the worst strains have full opportunity to flourish. (p. 33)

He went on to describe the reformatory prisons and re-education camps of the future where psychopathologists would treat and cure the root causes of crime in the curable; or alternately, identify the bad heredity of the irreclaimable and dispose of them. He speculated on the criminal court of the future, aided by experts in psycho-analysis deploying lie-detectors or truth serums, and explained the essential role of psychopathology in repairing the justice system to its full eugenic potential. Godwin devoted special attention to the *Crime of Cain*, the futility of the death penalty as a general deterrent, and offered eugenic evaluations for the associated crimes of infanticide and abortion. He condemned abortion as a general practice, but he reserved the right, based on heredity, to excuse the loathsome practice and offered conditional approval for the ruthless destruction of “the potential degenerate”:

In the future we shall probably regard it as a meritorious act on the part of a mother that she destroys at birth, say, a Mongol idiot. But the destruction of a healthy, vigorous infant will not be regarded with equanimity, since it will be recognized as a valuable asset to the community. (p. 50)

Later, in describing the problems of wayward children and juvenile delinquency, Godwin payed tribute to the research of eugenics pioneer Dr. Cyril Burt⁵⁵ for the early identification of potential degenerates and remediation through strict training and State care of the wayward child. Godwin preferred to punish the bad heredity of the parents and remove the child from the bad environment, as wards of the Public Health authorities. This practice would be greatly expanded and remodeled on a scientific-industrial basis to greatly reduce the cost of caring for many children, and improve on the haphazard results of over-stretched *ad hoc* programs.

Figure 3-17 on the next page illustrates the class-based eugenical solutions to crime expressed in Godwin’s *Cain*. This memplex more closely resembles the non-racial or class-based eugenics of the British movement than the racial paradigms that dominated American eugenics (Spiro, 2009) or German race-hygiene of the same period, or the Nazi variant in the Third Reich (Weindling, 1989).

⁵⁵ See Stephen J. Gould’s classic, *The Mismeasure of Man* (1981, 1996) in which he exposed the statistical finagling and fudging of Cyril Burt’s empirical data to buttress the eugenic narrative that ran through Burt’s research.

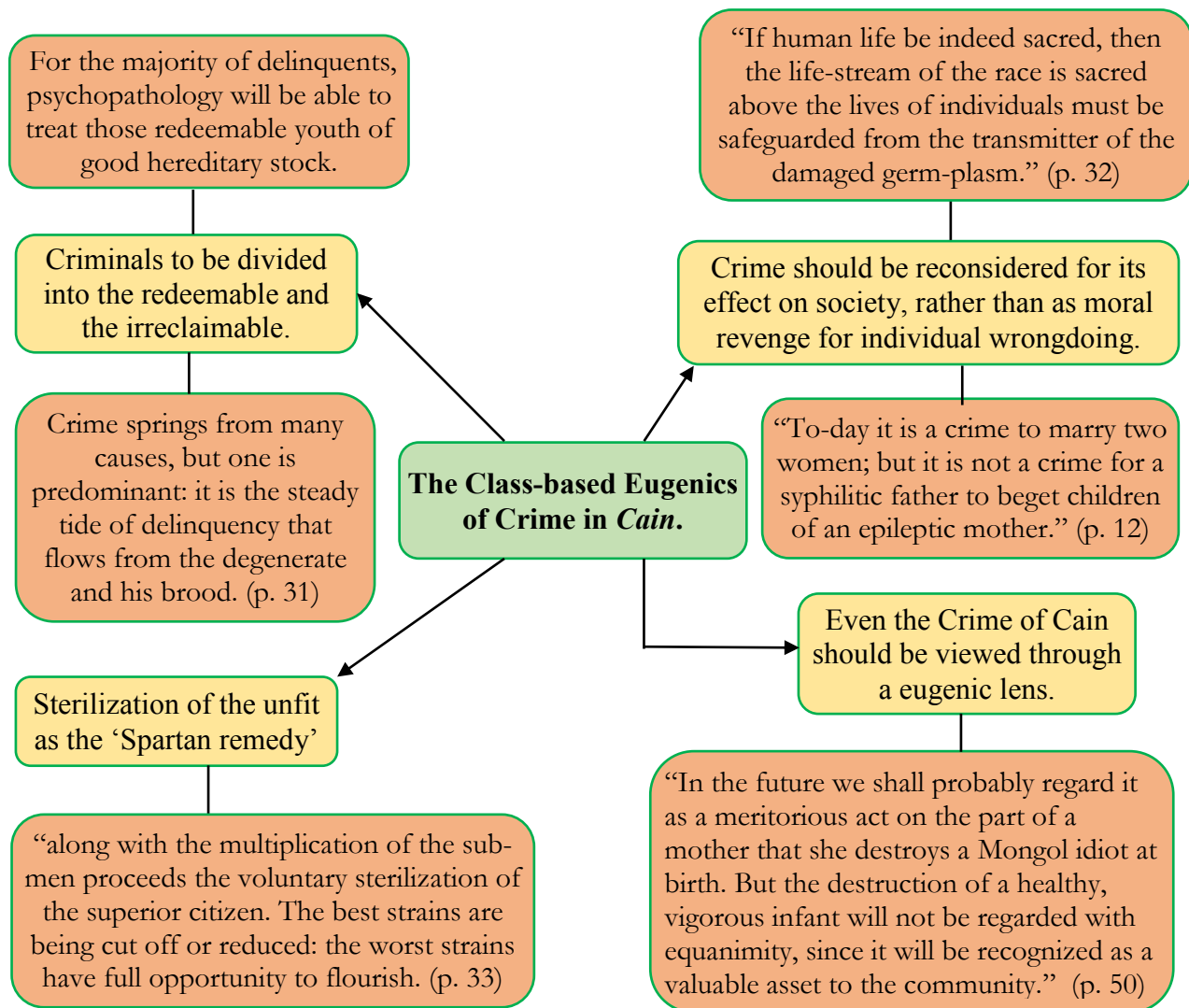


Figure 3-17: A partial meme-map for the class-based eugenics for dealing with crime, degeneracy and delinquency expressed in Godwin’s *Cain*. Although it is not racial, Godwin’s worldview is firmly hereditarian, with the sort of simplistic unit-factors giving rise to criminal types that Jennings had decried in *Prometheus*. (The green borders of the boxes represents non-racial or reform eugenics)

Godwin concluded *Cain* by invoking a future where parental rights are greatly reduced, replaced by an ingrained sense of community responsibility and eugenic duty to the race, using the example of social insects like ants, bees and termites that collectively raise healthy young to maturity and dispose of the diseased, damaged and the useless drones. Presaging the wartime Nazi policy for the elimination of the *Mindervertig* (useless eaters), Godwin declared: “We are likely ultimately to accept this system of ruthless and relentless elimination of the useless and worthless members of the

community” (p. 101). Indeed this analogy with the social insects was a popular one in the eugenically themed volumes of *To-day and To-morrow*, appearing in a number of volumes exploring human evolution and societal progress. (See the Greek Tragedy simulacrum of *Lysistrata* (1925) by A. M. Ludovici in Appendix IV, for an even more eerie prediction of future Nazi racial policies and racial degeneration.)

Despite this metaphorical common-ground, Godwin and his like-minded colleagues in London would have to wait for the State-sponsored race-hygiene pogroms of Nazi Germany before these schemes were put into effect to any large extent. And when this actually happened, it was to shock the rest of the world into deep revulsion and a rejection of eugenics, rather than ardent emulation; notwithstanding already established compulsory sterilization programs in America, and in Alberta until 1971 (Grekul, 2007).

Contemporary Critiques of *Cain*

As one would expect with a book forecasting the future of crime and punishment, *Cain* was reviewed in a number of period law review journals, as well as *The Sociological Review*, and even a sympathetic blurb in the *Lancet*. F. E. Lyon contributed a review to two different American law journals. One of these is available online from the *Journal of the American Institute of Criminal Law & Criminology* for May 1930 (p. 158, 159), published by Northwestern University. See Figure 3-19 below for Lyon’s initial comments on the social reforms and eugenical cures advocated in Godwin’s *Cain*:

CAIN, OR THE FUTURE OF CRIME. By *George Godwin*. 108 pp. E. P. Dutton and Company, New York, 1929. \$1.00.

This little book, written by an Englishman of whom we should like to know more, contains much plain speaking that will be refreshing to many readers who have thought the same ideas, but have hardly dared express them.

The author has clearly pictured the futility of punishment by imprisonment as a preventive or cure for crime. While he indicates the marked improvement, during the past century, of the English penal system, he frankly declares that no ultimate solution of the crime problem may ever be expected by institutionalizing offenders.

Figure 3-18: The opening paragraphs of F.E. Lyon’s review of *Cain*, in which the reviewer expresses some support for Godwin’s reformatory vision for treating crime as a sociological disease. (p. 158)

As a representative of the Chicago John Howard Society, Lyon agreed with Godwin’s calls for reforming the criminal justice system on a psychological and sociological basis, to treat crime as a disease to be cured, rather than merely punished with segregation from society. However, when the

topic turns to eugenic sterilization or the elimination of society's 'irreclaimables,' as opposed to humanitarian treatment or euthenic improvement, Lyon is more reticent. See Figure 3-19 below for Lyon's dissenting opinions on eugenical solutions to crime and delinquency:

Over against the concern for the sacredness of human life, as revealed in this connection, is the author's rather startling proposal that the unfit in society should be eliminated. While this suggestion is, of course, not new, it has rarely been so openly advocated as by this writer.

In the future, he says, "That human material which is clearly irreclaimable will be put painlessly away, rather in understanding pity than in a spirit of vengeance."

To the objector who says the community has no moral right to destroy life, he replies that the elimination of the degenerate is based solely on humanitarian considerations. "If human life be indeed sacred, then the life-stream of the race is sacred above the life of the individual."

Thus this writer boldly challenges thought, by his forward-looking programs for the prevention of crime. As to their practical application or administration he gives no attention. For example, with all his faith in psychology, he does not seem to think of what might be the psychological effect on the race of capital punishment, or the elimination of the unfit.

He advocates sterilization, but he ignores the difficulty of its effective administration and the fact that most laws for this purpose have already become a dead letter.

The author sees clearly that it is futile to punish the child for the sins of the fathers and mothers, but the reader naturally asks, how many generations of parents should bear the responsibility?

On the whole, this little book discards unnecessary verbiage, cuts through the conventions, and contains an unusual amount of meat for the open-minded and informed reader.

The Central Howard Association, Chicago, Illinois.

F. EMORY LYON.

Figure 3-19: Reviewer F. E. Lyon gingerly discussed some of Godwin's more radical criminal reforms based on eugenic principles of the primacy of racial health over individual concerns. While Lyon agreed with many of Godwin's more euthenic suggestions for reforming the justice system, he was much cooler towards Godwin's more draconian ideas about treating the anti-social or mental defectives to-day and the 'irreclaimables' of to-morrow, as proposed in *Cain*. (p. 159). Lyon even seems to invoke Judge Oliver Wendell Holmes declaration that "Three generations of imbeciles are enough!" in the *Buck v Bell* decision, by asking "how many generations of parents should bear the responsibility."

Of equal relevance but with an alternative memetic view, is the critique of *Cain* in the scholarly London-based *Eugenics Review* (1928). It focused on Godwin's eugenical suggestions rather than environmental-social reforms, although the anonymous reviewer also praises Godwin's calls for

treating criminals as individuals, not with slavish uniformity. Note also that the reviewer pronounced Godwin a “eugenicist” (p. 44), which is remarkable if one considers his other series contribution. It would seem Godwin’s philosophical memotype was highly sensitive to environment, making the best of the opportunities in the prevailing memetic ecosystem. The page-long review is summarized below by extracting the first and last paragraphs, which are the most ‘eugenically rich’ sections:

This little book is as vigorously and refreshingly written as are all of the *To-day and To-morrow* series, and it contains a great deal of sound and penetrating thought. Mr. Godwin, in short, writes not only wisely but well; and he has the advantage of a first-hand knowledge of life in the under-world on both sides of the Atlantic. As a eugenicist he has the root of the matter in him... (p. 44).

The book is chock full of intriguing suggestions, in particular the chapter on the crimes of the future. These may include idleness, abuse of riches, and debauching the public mind through the Press. Justice itself he declares to be an impossible ideal—a recognition which demands courage and clarity of thought; and “crime will not be dealt with as an isolated problem; for it is but one aspect of the greater problems, whose solution the Eugenicist is seeking...” Finally, one may quote, “Bad homes and bad parents mean bad children.” (p. 45)

As for the fruition of the legal and penal reforms Godwin advocated for, it was in America and in Nazi Germany that his radical eugenic thrusts were most vigorously pursued, while his native Britain defaulted to a much more conservative environmental reform (euthenics) program, based on class considerations.⁵⁶ Godwin’s apparent about-face on the environmentalist-hereditarian divide upon his return to the metropole of London, compared to his earlier experiences in Western Canada may merely be a shrewd adjustment of an ambitious man to changed social surroundings. It does not prove any kind of causal relationship, but seems to indicate that Godwin modified his paradigm or worldview to suit the local conditions he was describing, or the audience he was writing for. Judging by his later literary output, his memetic conversion to the ‘eugenicists camp’ seems to have been a one-off, as his later major works focused on his adventures in Canada, the War, or tributes to and biographies of artists, inventors, writers or other historical figures he either admired or despised.

⁵⁶ While the Great Depression and shifting political winds partially squelched the nascent eugenics movements in Britain, Canada and America, the Nazi experience put extreme pressure on these domestic programs, both due to widespread public revulsion and tactical political shunning of these domestic programs. Of course, the eugenics memplex survived for a few more decades in America (and here in Alberta), in a diminished state, partially camouflaged by re-branding (for instance to ‘medical genetics’ or social-biology). Eugenic organizations changed their names, or modified their agendas away from compulsory domestic programs to “Liberal Eugenics” (Agar, 2004), or global initiatives that provided voluntary contraception and other reproductive-control services in third-world countries undergoing their own belated demographic transitions (Osborn, 1968, 1974).

Changing Individual and Collective Paradigms or Worldviews

Godwin's post-*Cain* apostasy from being a fervent eugenics disciple is not addressed in secondary literature so far as I know. However, several central figures of the British eugenics movement, including J. B. S. Haldane (Barkan, 1992, pp. 249-260), underwent a similar falling-away from their involvement in the secular religion of eugenics, both with the change in political climate towards socialism and the rise of the Labour Party's electoral fortunes, but also as new scientific discoveries belied the old eugenic paradigm of simple-Mendelian inheritance and simplistic hereditarian dogma.

Other scientists and philosophers followed suit, as documented in Barkan's *The Retreat of Scientific Racism* (1992), which includes sections on Julian Huxley, H.S. Jennings and Raymond Pearl, and Lancelot Hogben. Barkan details the early involvement of these influential biologists and popularizers in the movement and tracks their memetic journeys as they distanced themselves from racialized strains, or completely broke from the movement, even in its 'reformed' incarnation. Both Barkan and Kevles (1985) discuss the squeamish disentanglement of the British intelligentsia from the overt racism of the Nordicist strain of eugenics that was popular in America, and the 'Aryanized' allele in German race-hygiene, towards the medicalized or institutionalized eugenics that was in theory free from being motivated by concerns about racial superiority or inferiority.

However, racial-religious biases were difficult to overcome, and nearly impossible to eradicate. Both authors acknowledge "the Limit of Traditional Reform" (Barkan, Chapter 4 and Kevles, Chapter 11) and the persistence of remnant racial biases and even much outdated science in the 'reform eugenics' agenda. Even this 'watered-down' memeplex was to suffer a body-blow when the horrors of Nazi schemes for Aryan SS-supermen and draconian racial pogroms were revealed. These actual realizations of the prophetic plots of *Cain*, *Columbia*, *Hymen*, *Lysistrata*, and other series titles, illustrated the capricious Janus-face of 'scientific, technological or societal progress' when alternatively interpreted (or perverted) by radical autocratic regimes.

This memetic transformation of an individual by a change in environment will be replicated in the next section, covering Dr. Norman Haire's *Hymen, or the Future of Marriage* (1927). Despite the innocuous title, the eugenic memes it seeded were to see dramatic fruition in the Nazi race-hygiene pogroms of the Third Reich; directed primarily against the Jewish race and the 'sexual deviants' that Haire took such pains to distance himself from. If there is any volume of the series in which the memetic prophesies were to be fulfilled, it is *Hymen*; and none more ironically or tragically.

Norman Haire's *Hymen, or the Future of Marriage*

The *To-day and To-morrow* series turned to the contentious topic of marriage and its place in the society of to-day and to-morrow, with dedicated volumes in late 1927 and early 1929. The first was *Hymen*, by Australian-born doctor and eminent pioneer of sexology, Dr. Norman Haire (1892 – 1952), followed by its belated partner, *Halcyon, or the Future of Monogamy* (1929), by Vera Brittain (1893 – 1970). Marriage and child-rearing issues, and their manifold societal implications, were perennially popular themes in the eugenics movement from the outset. This particular pairing is typical of several issues closely related to eugenics and their coverage in the series from different perspectives, such as the nearly diametric opposites of *Lysistrata, or Womans Future and Future Woman* (A.M. Ludovici, 1925; to which Dr. Haire wrote the foreword) and *Hyppatia, or Woman and Knowledge* (Dora Russell, 1925; a social-activist who worked with Dr. Haire in the English birth-control movement—see both reviews in Appendix III). The *Hymen* title-page and promotional reviews are excerpted in Figure 3-20 below:

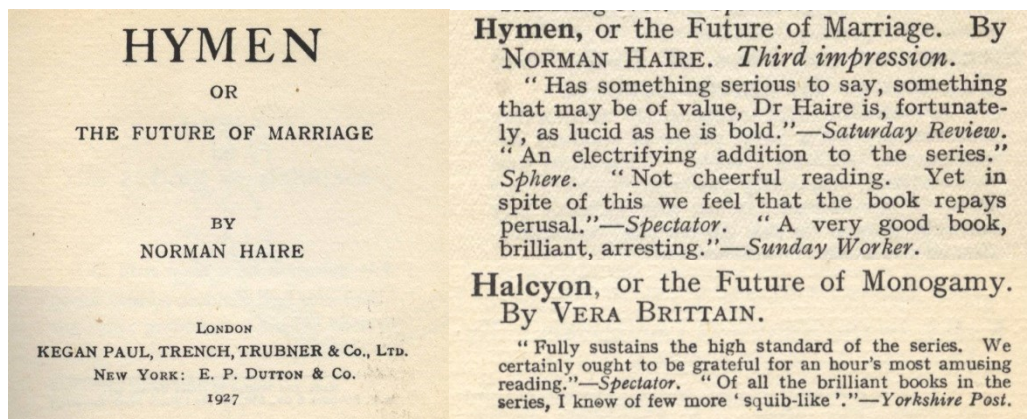


Figure 3-20: *Hymen* title-page and promotional reviews for the two series titles specifically devoted to marriage. As memetic alleles they are as diametrically opposed as the earlier A.M. Ludovici/Dora Russell pairing of 1925, or even the original socio-political-scientific antagonism of *Daedalus/Icarus*.

Norman Haire was born in 1892 in Sydney, the eleventh child of Polish-Jewish immigrants (the family surname was changed to Zions from Zajac – meaning hare or rabbit). Ironically, given his specialty vocation, he was never married and his biography alleges that he was an unplanned and unwanted child and a non-practicing (or closeted) homosexual (Forster, 1996). Thus, his support for extreme eugenic measures (compulsory sterilization, infanticide, elimination of the ‘unfit’) make him an enigma, in light of his personal history and status as Britain’s premier sexologist of the period. Haire won scholarships to the Fort Street Model School, where he won prizes for acting, debating and elocution. He later attended the University of Sydney, where he bowed to parental pressure to

study medicine, and served in a variety of postings, including the Army Medical Corps during World War I. Norman moved to Britain and changed his surname to Haire in 1919, first accepting posts as house surgeon at a number of London hospitals; before becoming chief medical officer at one of London's first birth-control clinics. He also travelled to Berlin to study sexual psychology and became fluent in German, and later declared Germany his 'spiritual home' (Forster, 1996).

The Compelling Memetic Panorama of *Hymen*

Of all the eugenically-active volumes of the *To-day and To-morrow* series, *Hymen* may be the most compelling, and simultaneously the most conflicted and incongruent with the conventional British and American eugenics memeplex-worldview. This is likely partly due to Haire's status as an outsider to the prevailing WASP establishment, coming to London from 'down-under,' without the cultural indoctrination of British prep-schools or universities, or the equivalent institutions in America. This outsider status is further perturbed by Haire's Jewish heritage, even if he did his best to renounce it.

On one hand, his very liberal views (for his time) regarding sexual morality and child-rearing were ahead of his time, which eventually made him a celebrity among the liberal-socialist intelligentsia of the 1950s and 60s, as these next-generation prophets and opinion-leaders of the 'sexual revolution' championed new ideas and mores. Haire's novel ideas about sex education, pre-marital sexual relations, trial-marriages and the like were hailed as enlightened innovations that were destined to sweep-away the remaining cob-webs of Victorian prudery and usher in a new-era of secular pragmatism, free from the shackles of outdated Judeo-Christian dogma or Puritanical conservatism. This new secular theology-based on biological and psychological principles, was to act much as Galton (1904) advocated: to replace old religious taboos and dogma that had outlived their usefulness in the modern world with a new paradigm that emphasized the biological and memetic fitness of the community and the race, rather than a focus on proscribing biblical sin or punishing those who defied the arbitrary dictates of uptight clerics and prudish elders.

On the other hand, Haire's fervent endorsement of the most draconian negative eugenics pogroms expressed by any series author, marks him as an outlier and contrasts starkly with his more benign attitudes to sexual morality and marriage. It is this apparent contradiction that makes *Hymen* one of the more difficult series titles to classify and digest. Indeed, when one looks at his eugenic paradigm, only the example of Nazi Germany comes close to fulfilling Haire's eugenic prophecies. Haire's problematic Jewish heritage and *verboden* sexual orientation make this strange memetic alignment all the more ironic in hindsight.

Figure 3-21 below previews the memetic picture for *Hymen*, both for the hereditarian worldview, and Haire's euthenic and secular morality pronouncements that were well outside the British *Zeitgeist* at the time, and even pushed the limits of post-modern mores in the sexual revolution of the 1970s.

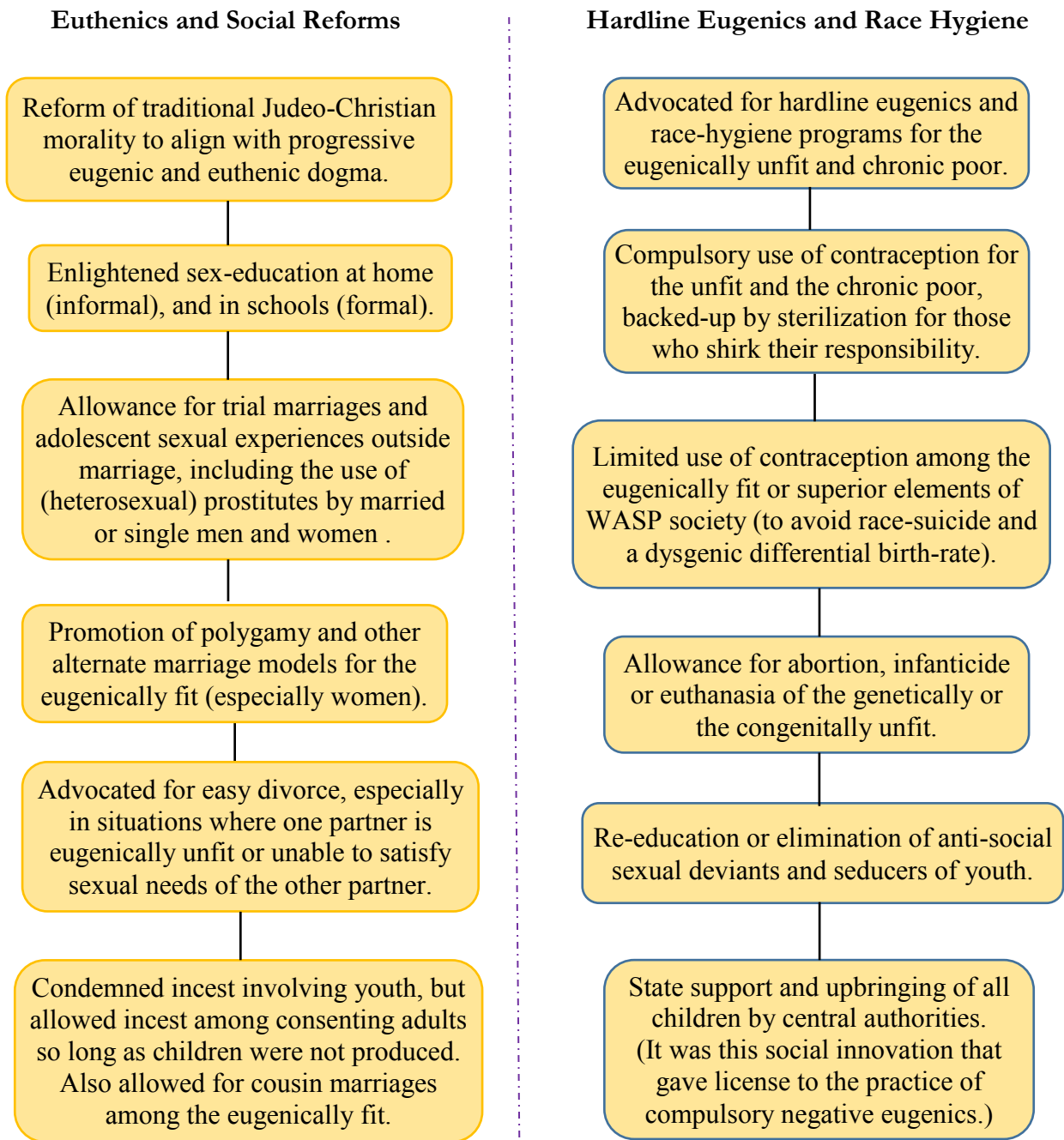


Figure 3-21: A partial meme-map for the Reform Eugenics and Progressive Euthenics in *Hymen*, showing meme-clusters from Haire's radical euthenics (left side) and atypical hardline-eugenics (right side of diagram). These twin thrusts in *Hymen* will be explored in more detail, including sample memes for the disparate euthenic (left) and eugenic (right) meme-clusters shown here.

Hymen as an outlier from the WASP-centric and Classical Roots of To-day and To-morrow

Hymen consists of five numbered, but untitled chapters, the last two being only two and one pages, respectively. There were no subtitles or subsections. Dr. Haire begins by revealing the source of *Hymen*, as “an extension of a paper on *Happiness and Marriage* which I read before a Scientific Society” (p. 5). He explains that as part of preparing that paper, he considered “the whole sexual ethic now current, as well as the question of sex-education.” As he did in his foreword for A.M. Ludovici’s *Lysistrata* (1925), Haire forewarns readers that “some of my opinions and prophecies will no doubt appear startling and revolutionary to the reader unacquainted with sexology” (p. 6), but he makes no apology for his careful examination “with complete scientific objectivity” in an arena that few had ventured to explore in serious English literature, where conventional Victorian morality had largely gone unchallenged. But he insisted: “I am not a revolutionary... I have the greatest distrust of revolutionary changes” (p. 6). But, like the recognized founder of eugenics, Sir Francis Galton, Dr. Haire is proud to wear the label of a scientific reformer and popular educator. His ongoing mission was to have current outdated laws and customs amended through the exercise of public education, to change popular opinion to a more rational-scientific basis, rather than meekly accepting the hodge-podge of prevailing customs, religious dogmas and unquestioned taboos. He also makes the careful disclaimer that although he is openly discussing “our present attitude towards any social evil—prostitution, say, or incest, or abortion—it must not be supposed that I am praising or advocating that evil” (p. 7). Here, for the first time, he also boldly asserts that “the evil is not *always* quite as bad” as first imagined, and is highly dependent on the prevailing societal attitudes in play:

Sometimes I shall suggest that what is now considered to be a grave social evil may at any rate be not so anti-social as some other activity which we do not condemn at all. Occasionally I shall suggest that what is now considered a grave evil may conceivably, in certain circumstances, be the means of avoiding a greater evil. (p. 7)

After these initial disclaimers and perceptual cautions, Haire transitioned to the subject at hand. He revealed the parlous state of marriage in Britain, where, at most, “only one marriage in four may be judged as even tolerably successful, and a very much smaller proportion can be fairly considered as really happy” (p. 9). Moreover this sad state of affairs is but one symptom of a “very widespread sexual unhappiness” and thus any serious reform of marriage must take this into account.

Next, Haire laboured the point that sometimes his prophesy would advocate for “increased freedom for the individual so long as it does not harm the community,” while at other points “I prophesy the more careful safeguarding of communal interest where unrestrained individual liberty

may threaten them” (p. 8). Like many social reformers before him (like the Messiah), he professed “it is not the *abolition* of sexual morality that I am suggesting—it is rather the *improvement* of it” (p. 8). He compared this to tuning a piano to produce the sweetest music, adjusting the social instruments of laws, customs and morals, to create the maximum harmony between the individual and the community. Here he confides to the reader, and his confession is made all the more poignant by considering his own conscious repression of his homosexual tendencies (Forster, 1996), that:

Only those who, through their personality and calling, receive the intimate confidences of large numbers of men and women, have an opportunity of realizing how frequent and how devastating such suffering is. Confidences like these come usually only to one who is sympathetic, tolerant, and unprejudiced; and it is, perhaps, not easy to appreciate the outlook of the sufferer unless one has, in one’s own life known some such unhappiness. (p. 10)

Haire bemoaned the “general ignorance and prejudice in respect of matters related to sex” among doctors, priests and educationists, and blamed this on a “lack of proper sex-education” (p. 11). Again, echoing Galton (1904), he attributed these ingrained taboos to “long-standing religious and social commands and prohibitions, many of which had a real value in some earlier condition of society, but are now obsolete or obsolescent” (p. 11). He lamented that there is a “general belief that morality (especially sex-morality) is a fixed thing, immune to change” when in fact it varied considerably from place to place, and age to age, as made evident by his extensive travels and varied research. He illustrated this using the example of abortion, pointing to Turkey and the USSR as societies that condone abortion; while most European nations not only banned abortion, but even birth-control and education about contraception for the masses, the extreme example being France.

Even in many secular societies where atheism or scientific pragmatism had taken root, age-old religious taboos and customs still shaped societal attitudes, especially with regards to sexual morality, even among the secular intelligentsia. He pronounced this moral absolutism “ridiculous and impracticable” (p. 12). Thus, rational social reforms were necessary “to put aside the accumulated litter of customs and taboos which we have inherited from our ancestors, and to formulate standards of conduct in a reasonable way... generally speaking an act which is beneficial to Society is *right*, and an act which is harmful to Society is *wrong*” (p. 15).⁵⁷ Actions affecting only the individual should have a broad social license, while those harmful to the community should be strongly sanctioned.

⁵⁷ Also compare this passage to its near memetic analogue in the last paragraphs of the chapter on memes in Richard Dawkins’ *The Selfish Gene* (1976, pp. 199-201).

A Tale of Two Civilizations as Twin Templates for Environmental-Social Reform

In order to flesh-out his expressed live-and-let-live worldview, Haire used the twin exemplars of the ancient Jews versus the ancient Greeks, so as make “clear that the great contrast between their sexual standards was, in the main, directly dependent on the contrast between their social needs” (p. 17). Here, while hiding his own Jewish background and homosexual proclivities, he explained how the peculiar social and environmental pressures shaped each culture, and influenced their disparate customs with regard to marriage, procreation and relative tolerance or prohibition of prostitution, polygamy and homosexuality. While numerous volumes of the *To-day and To-morrow* series, such as the pairing of Ludovici’s *Lysistrata* and Dora Russell’s *Hypatia*, freely discussed polygamy (or polyandry), concubinage or prostitution, contraception and abortion (or infanticide), none dared overtly mention homosexuality. Until Hymen, they employed carefully-veiled Victorian euphemisms, such as ‘sexual deviants,’ in an effort not to outrage genteel readers. Haire narrated the disparate population and environmental constraints of these two revered ancient societies:

The Jews were a small race with great ambitions. They depended on a large army to defend their very existence against the hostility of neighboring people, and on an increasing population to achieve what they believed to be their divinely ordained mission. Their tribal god—Jehovah—had commanded them to be fruitful and multiply and replenish the earth. In order more effectively to do this they were polygynous—there seems to have been no limit to the number of wives a man might have. Anything which tended to prevent increase of population was considered immoral. For a man to remain unmarried was disgraceful; onanism, homosexuality, and bestiality were all offences meriting the severest penalties. Fornication and adultery were crimes against property as well, the unmarried woman being the property of her father, and the married of her husband [thus] persons committing these crimes would be likely to avoid pregnancy...so these two acts would also tend to prevent an increase of population. These two acts, therefore, were doubly anti-social, and were, like the other crimes... punishable with death. Infanticide was categorically forbidden by the tribal deity. (p. 17, 18)

The Greek civilization was very different, and offers a correspondingly different sex-code. Here we see a number of small states of limited area, with a definitely restricted food-supply... It became necessary to restrict the population [to avoid famine and war with neighbors]. All sorts of expedients were adopted to attain this end, and the sex-code is in almost complete contrast with that of the Jews. Fornication and adultery were not only tolerated, but regarded as a matter of course, and prostitutes enjoyed a comparatively high status. Homosexuality became so general in some communities that it was considered a disgrace if a young man did not have a male lover... Infanticide was an established custom. (p. 18, 19)

Again, Haire follows this frank discussion with an explicit disclaimer that he is not condoning any practice, nor judging the respective values of either culture, merely acknowledging that each community adapted its moral codes (the prevailing memplex) and practices (the memetic phenotype) to its situation, one to expand its population and one to restrict it. Having hopefully mollified his more sensitive readers, he dropped another revelatory bomb: “Our sex-codes to-day have no such rational foundations” (p. 20). Christian countries largely adopted Jewish traditions, as modified by Christian authorities to prohibit “polygamy, concubinage and divorce by consent [of the husband alone],” while preserving the Old Testament prohibitions. Haire argued “it has gradually coloured the whole of public opinion,” so even the most enthusiastic Rationalists, Agnostics, and Atheists... despite “proclaiming their emancipation” from religious teachings, “frequently show strong evidence of the religious tradition in their moral judgments” (p. 20, 21). This assessment also accords with Dawkins’ (1976) notion of the strong resistance of religious memplexes to change, and Galton’s (1904) assertion of the potency of religious taboos that his secular religion of eugenics was to emulate for racial betterment.

Haire then illustrated another example of this confused attitude towards sexual morality, that of incest, right after another careful disclaimer as to his scientific objectivity. He explicitly stated that “I condemn incest, and... I do not agree with those who recommended close inbreeding and incest as means of race-regeneration practicable in European civilizations of to-day” (p. 21), pointing to his series colleague A.M. Ludovici’s most recent work: *Man: an Indictment* (1927), for the curious reader who might dare to learn more. Some sexual mores were taboo even for *To-day and To-morrow*.

Having made clear his academic detachment and personal revulsion, Haire clarified the two scientific-secular objections to incest: “(1) it may result in the production of defective offspring and so harm the race; (2) It may, and often does, involve the seduction of young persons” (p. 22). Haire first dealt with the scientific objection. He pointed out that “geneticists have established the fact” that in-breeding “intensifies” common characters, whether good or bad: “If the parents are of bad stock, the offspring are likely to be worse; if the parents are good stock, the offspring is likely to be better” (p. 22). Thus horse or cattle-breeders have improved their stock through strict inbreeding for several generations. He does not yet mention any human examples, such as the classic example of the Pharaohs of ancient Egypt. Instead, he consulted the geneticists to see whether the practice should be biologically harmful in humans. He quoted extensively from Harvard geneticist and long-time member of the *American Eugenics Society*, E. M. East’s (1879 - 1938), *Inbreeding and Outbreeding* (1919), to reinforce his earlier claim that incest may be eugenic or dysgenic, depending on the germ-

plasm value of the specific parents. One passage is worth quoting, especially in connection to a contemporaneous article in the American journal: *Eugenics: A Journal of Race Betterment*.⁵⁸

If evil is brought to light, inbreeding is no more to be blamed than the detective who unearths a crime. Instead of being condemned it should be commended. After continued inbreeding a cross-bred stock has been purified and rid of abnormalities, monstrosities, and serious weaknesses of all kinds. Only those characters can remain which either are favourable or at least are not definitely harmful to the organism. Those characters which have survived this 'day of judgment' can now be estimated according to their true worth... (p. 24)

After this expert genetic testimony by Castle, East, and F.A.E. Crew, Haire opined that this possible scheme for race-regeneration "is not applicable" to modern Western societies, not because of scientific illegitimacy, but because "public opinion would not countenance the 'rigid selection' which" would be needed to eliminate the defective offspring that would be produced (p. 26). As to whether this might change through eugenics education or a new pervasive spirit of scientific rationalism, "is a matter of opinion" and he promised to "return to this point" (p. 26). But he also added that "where the incestuous couple take care that no child results from the union, this objection obviously does not come into consideration at all" (p. 27).

As for the second objection – that of the seduction of young people by a near-relative – Haire pronounced this "gravely anti-social" (p. 27), and every attempt should be made to prevent it. He added that incest between relatives in a consensual relationship involving defective or possibly defective adults is also to be condemned. Haire reminded readers that the prohibition against incest between consenting adults is not governed by scientific reason, but irrational religious taboo, and he laments the "vindictiveness" (p. 28) evidenced by such cases. He cited a recent case in a popular newspaper where a 48-year-old widower and his 28-year-old daughter, also a widow, were chastised in the most righteously indignant way by all concerned—judge, jury and newspaper reporter— and both were sentenced to the maximum prison term. Beside this article was a second, much longer column, complete with multiple pictures, sympathetically describing the marital union between two deaf and dumb mutes. Haire remarked how the story concluded with a "touching forecast" of the married couple in their old-age, "surrounded by a horde of children—presumably deaf mutes also" (p. 30). Haire lamented this sentimental reversal of societal values, regarding this case of incest as "far less anti-social" than "the two dumb-mutes [marrying] without first being sterilized" (p. 30):

⁵⁸ In the 2nd issue of *Eugenics* (November, 1928) Dr. East is profiled (alongside colleague W. E. Castle - also cited by Haire, p. 25) as "Professor of Genetics at the Bussey Institution of Harvard, and a member of the Advisory Council of the *American Eugenics Society, Inc.*" (pp. 16-19). See the Eugenic Institutions section of Chapter IV.

Provided that they do not offend against accepted taboos, the most loathsomely contaminated persons may pollute the health of the nation with impunity. Indeed if an epileptic bridegroom falls in a fit as he goes up the aisle... he is rushed into the vestry for the application of restoratives so that the marriage need not be postponed. Public opinion is so misguided that such people are even considered to have a call on our sympathy and charity—our purses, forsooth, must be opened to assist them in their work of propagating the unfit. (p. 30, 31)

Not satisfied with a single example of this dysgenic sentimentality, Haire relates another newspaper story of a poor, unnamed family with a congenitally blind father, several of whose children have had to have one or both diseased eyes removed, and the story appeals for public donations to support the family. He rails against this misguided charity, and rejects the idea of helping this family to “go on producing children doomed to be blind, and to be a burden on the community” (p. 32). He mercifully remarks that it is not necessary to reproach this unfortunate father, merely that the couple be forced to use contraception or be sterilized to avoid bringing such children into the world. He condemns these popular media appeals to maudlin charity as “hurrying us to national and racial disaster” (p. 32). Haire warns that there is “scarcely a single subject relating to sex” where our modern society is capable of thinking and acting rationally, all of which “give rise to incalculable harm” (p. 33).

Before turning to the subject of contraception, Haire makes another foray into exploring this irrational reversal of values, to deal with the taboo against prostitution. Following another italicized disclaimer where he “*regards prostitution as a social evil*” (p. 33), he avers that the prejudice against it is irrational. While he “grants that the wife who bears and rears a healthy family is of more service to society than any prostitute” (p. 36), he regards the harm done by prostitution to be very much less “than a wife who bears and rears—or leaves Society with the burden of rearing—a family of physically or mentally defective children” (p. 37). Haire decries this backward slavery to religious-based sexual taboos to be doubly dangerous, as it “tends to make it worse by driving it into secrecy and making the persons involved to feel that they are pariahs” and warns that until we realign our sexual mores, “all our efforts to stop the spread of venereal disease will be futile” (p. 37).

Haire’s pronouncements on traditional marriage and its nascent modernist alternatives, his curriculum for sex-education of children and youth and other environmental-euthenic reforms are illustrated in Figure 3-22 on the following page. Only Dora Russell in *Hypatia* (1925) went further in terms of a progressive agenda for sexual equality and marriage reforms, especially in regards to women’s rights and prerogatives, and the primacy of sexual satisfaction between partners. Haire and Russell were allies in their advocacy for access to contraception, but Dora Russell never advocated

for negative eugenics, and certainly not extremes like infanticide and euthanasia. In this, only Ludovici (1925) and Godwin's *Cain* (1928) ventured into this hardline territory. Even Haire's American counterparts of the time did not generally condone abortion, or any kind of active euthanasia measures. But it is significant that his German counterparts not only advocated for these extreme measures, but under the banner of Nazi race-hygiene, actually began practicing what they preached on a large scale (Engs, 2005, pp. 158-160, 191).

Taboos against Birth Control or Extramarital Sex as Remnants of Ancient Jewish Attitudes

Haire then launched into an examination of "attitudes toward Birth-Control to-day," which he deemed an "inconsistent reflection of the ancient Jewish attitude" (p. 38). Thus, though "social conditions demand it" and the practice is becoming "almost universal" (p. 38), Church and State oppose it, based largely on the obsolete moral codes in Genesis.⁵⁹ He pleaded for an adaptation of values to fit the modern conditions, denying that either the ancient Jewish or Greek sex-codes "is adapted to our needs" (p. 38), in a passionate plea to fit sexual morality to present societal needs:

As social conditions change, the sex-code must undergo corresponding alterations. We may have the very strongest approbation or condemnation for any course of sex-conduct, but we should base it, not on outworn customs and taboos, but on some reason that is applicable to our life to-day. We must cease to swallow conventional sex-judgments which are presented to us: if not, we shall continue to suffer from indigestion—in the form of widespread sexual unhappiness. We must re-examine these conventional standards in the cold light of reason. They must be considered objectively, dispassionately, unemotionally, and it will be found that hard-and-fast rules are seldom satisfactory, and that many time-honoured customs and judgments must be modified, or relegated to the dust-heap, and replaced by others more suitable to our own social conditions. (p. 38, 39)

Haire laid the blame for this irrational state of affairs at the hands of "the religionists" and their "low view of human nature" (p. 39). He ventured that they believed if these dogmatic prohibitions were modified or removed, "almost all men and women would at once fly to the furthest limits of excess in all varieties of normal and abnormal sexual activity!" (p. 40). But he argued that "the experience of ordinary married couples does not bear this out." He granted that due to the rampant sex-repression prevalent from puberty until marriage, newlyweds "are often immoderate for a little while after the bar to satisfaction is removed, but it is rare for this continue for long" (p. 40). He remarked that was surprising just how moderate the average couple's sex-life is after a few years of

⁵⁹ It is worth pointing-out here, given Haire's personal situation, that at no point in his discussion of today's outdated morals or taboos does he broach the subject of homosexuality (except in his earlier survey of morals in ancient Greece), even with a protective disclaimer.

marriage, and that sexual excess was much less common than sexual drought in married and unmarried persons, and further professed that the excess was often a “direct reaction” to a period of “antecedent deprivation” (p. 40).

Moreover, Haire decried the sexism among “conventional moralists” (p. 40), who argued that any relaxation of societal prohibitions would result in “excessive sexual demands of the male on the female” (p. 41). He debunked this old myth, asserting that “every sexologist is aware that the normal woman has as vigorous a sex-appetite as the normal man,” and confided that it was just as common for a “married woman to complain about their husband’s sexual inadequacy as his sexual excess” (p. 41). He clarified that it was logical for women to fear pregnancy given the unequal burden they bear, but he insisted it was this fear that had confused the prudish moralists, not any reluctance by normal women to engage in the sex act itself; though in extreme cases this logical fear of closely-spaced multiple pregnancies could be irrationally transferred to the whole marital relationship.

Haire began Chapter II with the bold claim (for its time and place) that: “The primary object underlying marriage has always been, and still is, sexual union” (p. 42). He listed the other purposes of marriage “among civilized peoples,” and took care not to minimize these “secondary” objectives, but insisted that “they are secondary” to the sexual union (p. 42). He asked how many men would willingly marry a woman who by accident of birth was incapable of the sexual act; likewise for women with “a man suffering from incurable impotence” (p. 42). He admitted there were a few, but then questioned how many parents would wish to condemn their children to such a marital fate.

Having established the primacy of “the satisfaction of appetite being the primary object of marriage,” Haire segued to a “brief consideration of the sex-impulse” (p. 43). He rated this impulse as being as “universal and instinctive” as the need for food to satisfy hunger. Here he instructed the reader into new research of the hormonal products of the “gonads, or ductless glands” (p. 43), just as many of the other eugenically-related volumes of the *To-day and To-morrow* series had also done (e.g., Haldane, Bertrand Russell, Jennings). He noted that unlike the other endocrine glands, the activity of the gonads was largely delayed until puberty. But in a first for the series, he revealed that these glands were not entirely quiescent in most children, leading to “manifestations of the sex appetite and activity” and declared that its absence was “evidence of physiological defect and disorder” (p. 44). In a natural state of “primitive conditions we should mate immediately [when] we arrive at sexual maturity.” But, “unfortunately” in our modern civilization, “economic, social and religious factors combine to postpone the age of marriage” (p. 44) resulting in unsatisfied appetites. The consequent sexual repression interfered with good health, mental and physical disorders may occur, and too often, the impulse “finds an outlet in some infantile or abnormal channel” (p. 45).

Returning to the sex-impulse in children, Haire cited “infants-in-arms indulging in auto-erotic manipulations” and emphasized the commonality of childhood sexual memories or sex-activity, expressing these as “quite normal... a form of sex-play expected in healthy children” (p. 46). He mollified the concerned parent with the medical advice that “no harm results from such habits, *unless they are carried to excess*” (p. 46). He cautioned parents not to lead the child to believe “moderate auto-erotic activity” was either “wicked or injurious,” for worrying about their wickedness or imagined harm may actually cause the child more severe problems, in extreme cases even “driving many to suicide or madness” (p. 47). He certified that his view “is supported by the majority of the experts in sexology to-day” (p. 47). He continued with another disclaimer: “I do not mean that the child should be encouraged to auto-erotic activities” and advised parents that “undue preoccupation” should be gently and discreetly discouraged, and the child’s energy redirected into other channels, accompanied by “a proper sex-education;” but he cautioned against undue “punishment and terrorization” (p. 47).

Haire devoted a couple pages to sketch a brief home sex-education curriculum, assuring parents that “it should be no more difficult than educating it about its other bodily functions, and cautioning them against feeling embarrassment” (pp. 47-49). He hailed the progress in sex-education achieved by today’s progressive parents and teachers, and the increasing enlightenment he has witnessed. He asserted that “puberty is far too late” (p. 48) to begin teaching children about the sex-function, instead they should be gradually and persistently educated from the time they begin to ask the first questions about their bodies and its functions. He suggested introducing a female cat or dog into the house and using it as a teaching tool about reproductive functions, allowing the child to make connections with the production of human babies. The same could be done with flowers, and the connection between pollination and the transfer of seed from male to female animals, leading the child to eventually ask about this process in humans. When the child eventually said that they want to “make a baby” they would be told that “all a child’s energy is needed for building up their own body...only when it is adult will it be able to enter upon parenthood” (p. 49, 50).

Haire included seeing brothers or sisters naked in the bathroom or bedroom as a part of this education, leading to a lack of embarrassment in the children of a multi-sibling family (like his). He also emphasized the importance of proper sex-education as the best prevention against seduction, and instilling an easy comfort in discussing sexual matters the best insurance that any undesirable experience was promptly reported “before any irreparable damage has been done” (p. 51). Haire closed this chapter by revealing that the age of sexual maturity “in temperate climates” is about sixteen years of age, at which point, “normal youths and maidens are ripe for mating” (p. 51). He argued that “mating should occur without further delay;” as any “long postponement of normal

sexual activity may lead to physical or mental ill-health... or to various forms of sexual aberration” (p. 52). However, Haire did not mention what these ‘sexual aberrations’ might be.

Having dealt with sex-education for children up to the end of puberty, Haire began Chapter III by repeating his earlier assertion that mating was desirable “soon after sexual maturity” (p. 52). He now boldly revealed there were two ways to attain this goal: “firstly by early marriage, and secondly by premarital experiences” (p. 52). He applauded the increase of early marriage in America, but he added the caveat that this must be accompanied by “facilities of easy divorce” (p. 52), something that eugenicists in America were fervently trying to suppress, in addition to hasty elopements and trial marriages.⁶⁰ Haire boldly advocated for wide dissemination of contraception to young couples, allowing them to enjoy the sexual relationship with a spouse, without worrying about the early economic burden of children. But he argued that an even better solution would be for “the State to take over the responsibility of supporting its young citizens” (p. 53). Haire put no eugenical caveats, as yet, on this appeal for State support of child-rearing, unlike previous positive eugenics programs postulated by British eugenicists from Francis Galton to Leonard Darwin. American eugenicists of the same time also appealed for private foundations or employers to provide grants to eugenically promising couples, such as first-class college and graduate students, new graduates, and even ‘eugenic pay’ for faculty members.⁶¹

Next, Haire argued that until easy divorce becomes a reality, pre-marital unions were useful to avoid the mistakes of inexperience. But without easy access to proper contraception, the twin risks of unwanted pregnancy and venereal disease presented clear and present dangers. But if the State were to adopt a more enlightened attitude, they would gladly accept healthy ‘eugenic babies’ for adoption or State-care and “consider that the mother had done Society a service by producing a potentially useful citizen” (p. 54). Haire predicted that the prevailing prejudice against unmarried mothers and their ‘illegitimate’ children would disappear in the future.⁶²

⁶⁰ See, for instance, numerous contemporary articles published in *Eugenics: A Journal of Race Betterment (EJoRB)*, including a discussion on tightening marriage restrictions and decreased rates of divorce in Georgia, in the Jan. 1930 issue, written by Univ. of Pittsburgh professor Roswell H. Johnson, editor of the staple “Legislation” department. Johnson also co-authored *Applied Eugenics* (1918) with Paul Popenoe, which became the most popular textbook for college-level eugenics courses in America during the Interwar years.

⁶¹ See the *EJoRB* article by A.E. Wiggam on ‘eugenic pay’ at universities for young faculty members or promising graduate students to begin a family, or support larger families for faculty, in the Dec. 1930 “Child Allowance Number.” In the same issue, there is also a symposium panel on “The Faculty Birth-Rate: Should it be Increased?”

⁶² Compare this suggestion with the proud assertion by the *AES* that “Five Eugenists” are against unmarried parents and their so-called “eugenic babies” in the first panel discussion: “Are the ‘Eugenic Babies’ Eugenic?” in Issue 1 of *Eugenics*. Interestingly, the discussion panel includes *AES* advisory council member Prof. William McDougall, author of *Janus, or the Conquest of War* (1927); the only *To-day and Tomorrow* series author to be so honored.

Haire also predicted that “the incidence of venereal diseases is certain to diminish” (p. 54). This would be partly accomplished by increased efforts at prevention and the efficacy of new cures. But it would also be diminished by “the gradual replacement of the professional prostitute by the voluntary mistress” (p. 55). Given the reduction and eventual disappearance of the obsolete prohibition against pre-marital or extra-marital sex, “young men will be able to enter into a love-relationship based on mutual attraction” (p. 55), as also advocated by fellow birth-control and free-love advocate Dora Russell in *Hypatia* (1925). But, however much premarital-sex might increase; Haire did not see an end to the necessary societal role of the “professional harlot”:

It is, however, unlikely that the harlot will ever disappear entirely. She will always find a certain element, say, from men who are travelling... men who find themselves temporarily separated from their wives or mistresses... [and] those men whose temperament is such that they feel the need of frequent change of partner. (p. 55)

He reviewed the prestige in other cultures of female “courtesans” as a “comparatively high type of woman” and predicted that “the harlot of the future will probably be much better, than her predecessor of to-day” (p. 56). He argued that a progressive society would accept her as inevitable and these women “will develop an increasing self-respect, and will pay more attention to personal hygiene and attractiveness” and the profession would one day be considered no more degrading “than acting on the stage,” just as this was “considered highly immoral not so many centuries ago” (p. 56). But Haire went even further, into unexplored *To-day and To-morrow* territory, by also suggesting that with “increasing equality of the sexes it is probable that male (heterosexual) prostitution may increase” (p. 56). He admitted this already happened, but “so far it is considered to be far more evil than its female counterpart;” explaining this future trend as the logical outcome of the equalization of gender roles. There was no mention of homosexual analogues for either gender, so Haire’s parenthetical clarification of “male (heterosexual) prostitution” was revelatory; coming from a progressive sexologist supposedly free of superstition, and given his own closeted gay status.

Although this would have been a logical place to broach the subject of modern homosexuality, Haire abruptly returned to the subject of sex-education, making another plea for proper marriage preparation and lamenting that of all forms of education it was both the most important. He cited lack of sexual proficiency as a prime cause of marriage failures, especially among men, noting that “one learns far more often that the husband was hopelessly ignorant and inefficient than that he was a rake” (p. 58). Among women, the primary failure was due to an undue lifelong emphasis upon chastity, which interfered even with normal marital relations. He argued that “both the man and the

woman should learn something of the science and art of love, and if this involves the necessity for some pre-marital experience posterity may learn to accept it” (p. 58) As for chastity, he dismissed male chastity as having “never been considered really important, and the emancipation of woman is naturally leading the extension of her freedom in this regard” (p. 58). This emancipation was more extensively proclaimed by Dora Russell in *Hypatia* (1925), and her feminist sexual manifesto went further in this regard than Haire discussed (see review in Appendix III).

The Welfare State, Polygamy and Women’s Emancipation

After another personal disclaimer that “*Lifelong monogamous marriage is the ideal to aim at*”, Haire declared that ideal was “suitable to, and attainable by, only a very small minority of people” (p. 59). He declared all normal men to be polygamous, at least in their desires, a great number in practice, and that most of the remainder refrained more out of fear of financial or custodial repercussions in this life or eternal punishment in the next; a taboo “which has been invented and exploited by theologians” (p. 59). But unlike Dora Russell, he asserted that today’s “women are not usually so polygamous, though whether this is biological or due only to long ages of repression” is not clear. Haire did predict that polygamy would increase in the future as part of female emancipation, but he categorically stated polygamy “will not replace monogamy,” and “will not be compulsory” (p. 60).

Haire granted that traditional marriage, reinforced by religious dogma, had such “power among the unthinking majority of the population” (p. 60) that it was unlikely to change radically for most classes. The road to future “emancipation from the thralldom of the dogmatic religions” would be easy divorce, “if either party wishes it;” or intelligent persons would simply not enter into marriage contracts (p. 61). He argued traditional marriage was a byproduct of primitive cultures lacking in contraceptive knowledge, but with an abundance of male domination or repressive religious dogma. But women’s emancipation made it inevitable that men and women would cease support of their former spouse as a duty. He predicted men and women would “each be self-supporting, or pool their resources, or the more capable will assume the responsibility of supporting both” (p. 62).

Whereas most eugenicists endorsed monogamous marriage, if only for the environmental-social stability benefits of any children produced, Haire predicted that in the future children “will probably be supported by the State from funds provided by the taxation of all citizens, male and female, whether married or unmarried, and whether they themselves have children or not... a logical extension of our present system by which free education... is provided for all children” (p. 62, 63). This was perhaps *Hymen*’s most accurate prediction: the creation of a future Welfare State, one that in 1927 was but a gleam in budding Keynesian’s eyes. In America, it was an idea that eugenicists

were actively discouraging by all means available to them, including compulsory sterilization. Haire predicts this child-welfare scheme would also encourage polygamy, as still practiced in many cultures; though he gives no examples, even obvious ones that other eugenical thinkers of the era explored.⁶³ See Figure 3-22 below for a positive view of polygamy, as published in *Eugenics* (1928).

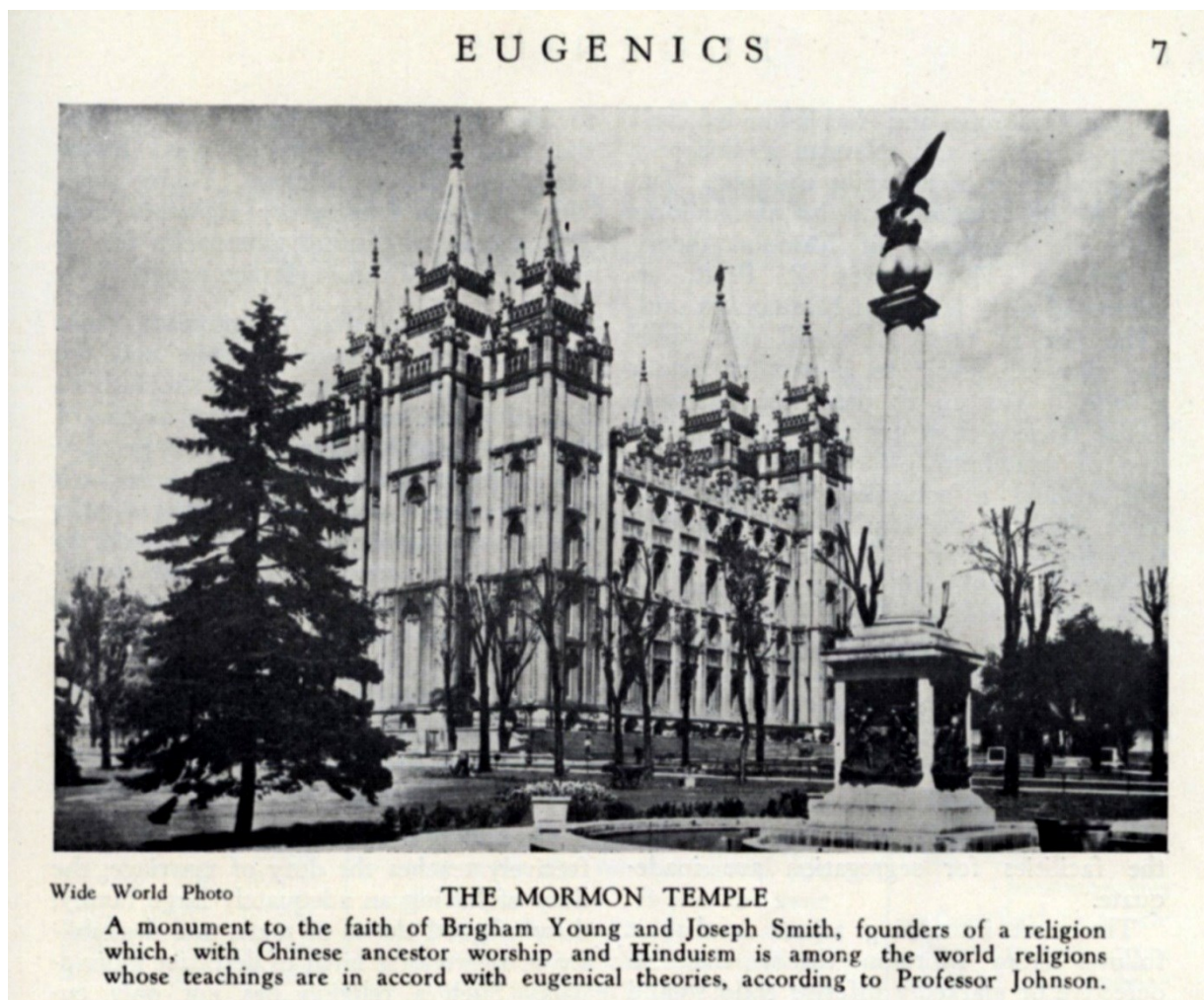


Figure 3-22: Picture and caption from Roswell Johnson's article "Eugenics and Mormonism" in the Nov. 1928 issue of *Eugenics: A Journal of Race Betterment* (p. 6). The article described polygamy among traditional Mormons, and applied the conventional eugenic wisdom that so long as the parents in question were of superior stock, such arrangements should be sound from a eugenic viewpoint.

Haire reviewed the eugenic reasons for polygamy, and argued that once the State has assumed responsibility for child-care and rearing, "there need be no limit, except personal inclination, to the

⁶³ An obvious choice would have been traditional Mormon practice before modern reforms, a subject briefly explored in a pioneering *EJoRB* article: "Eugenics and Mormonism" in the Nov. 1928 issue (pp. 5-8), by the prolific Roswell H. Johnson, current editor, *AES* director, secretary-treasurer and former president. Johnson states that "the Eugenic situation is better in Mormonism than in other cults" (p. 5).

number of legal mates a man or woman might have” (p. 64), as allowed in the ancient Jewish faith, but this indulgence would now be extended to both sexes.:

As we become more socialized, our sense of property, outside mere personal belongings... will gradually diminish, and... will eventually lead to the disappearance of the present system of inheritance of money, land and so on. *In the age to which I look forward, the parent will... leave his child, not a large store of worldly wealth, but a good heredity, physical and mental.*⁶⁴ (p. 64)

Haire further extolled the secular virtues of this rational polygamy, in which “before marriage a man and woman would state whether they desired the union to be monogamous or polygamous;” but he allowed for the later dissolution of the marriage, if either partner changed their minds (p. 64). He offered the additional solution provided by polygamy, for “those women, often among the finest of their sex, who want children, but have no desire for a permanent husband” (p. 65). One wonders whether Haire was thinking of his series partner, Dora Russell, and her polyandrous marriage to fellow *To-day and To-morrow* author, philosopher and noted polygamist, Bertrand Russell.⁶⁵

Haire assumed that most people would continue in the present trend of traditional marriage: not because they were truly satisfied with it, but simply according to inertia, “to avoid the trouble of making a change,” and also due to the fact that many people are “sexually deficient,” due to “many centuries of repression” (p. 66). Or, at the most, they would default to the existing option of serial polygamy, “one marriage partner at a time” (p. 66).

As before and in his foreword to *Lysistrata*, he forecast these revolutionary changes to marriage “will at first be violently opposed” (p. 66) and prophesized the greatest opposition would come from opponents citing ‘family values’ and the welfare of the children. He admitted it was best for children to be brought up in a single traditional marriage household, but also argued “it is better for children to be brought up by strangers or by the State than by irresponsible or incompetent parents” (p. 67).

Dr. Haire even hypothesized that the average parent may actually be the least fit to bring up their own child, as “their attitude towards it is so largely emotional, and so little rational, that they often find it very difficult to treat it with justice” (p. 67). Haire extended his pessimistic preaching in a long, stinging soliloquy that seemed to echo his own unhappy childhood experiences:

Parents tend to believe and to try to make their children believe, that they have done the latter a great favour in bringing them into the world at all. This is nonsense. In the vast majority of cases the parents do not deliberately intend to procreate the child—most children are procreated quite accidentally, as a by-product of a sexual congress, the real aim of which

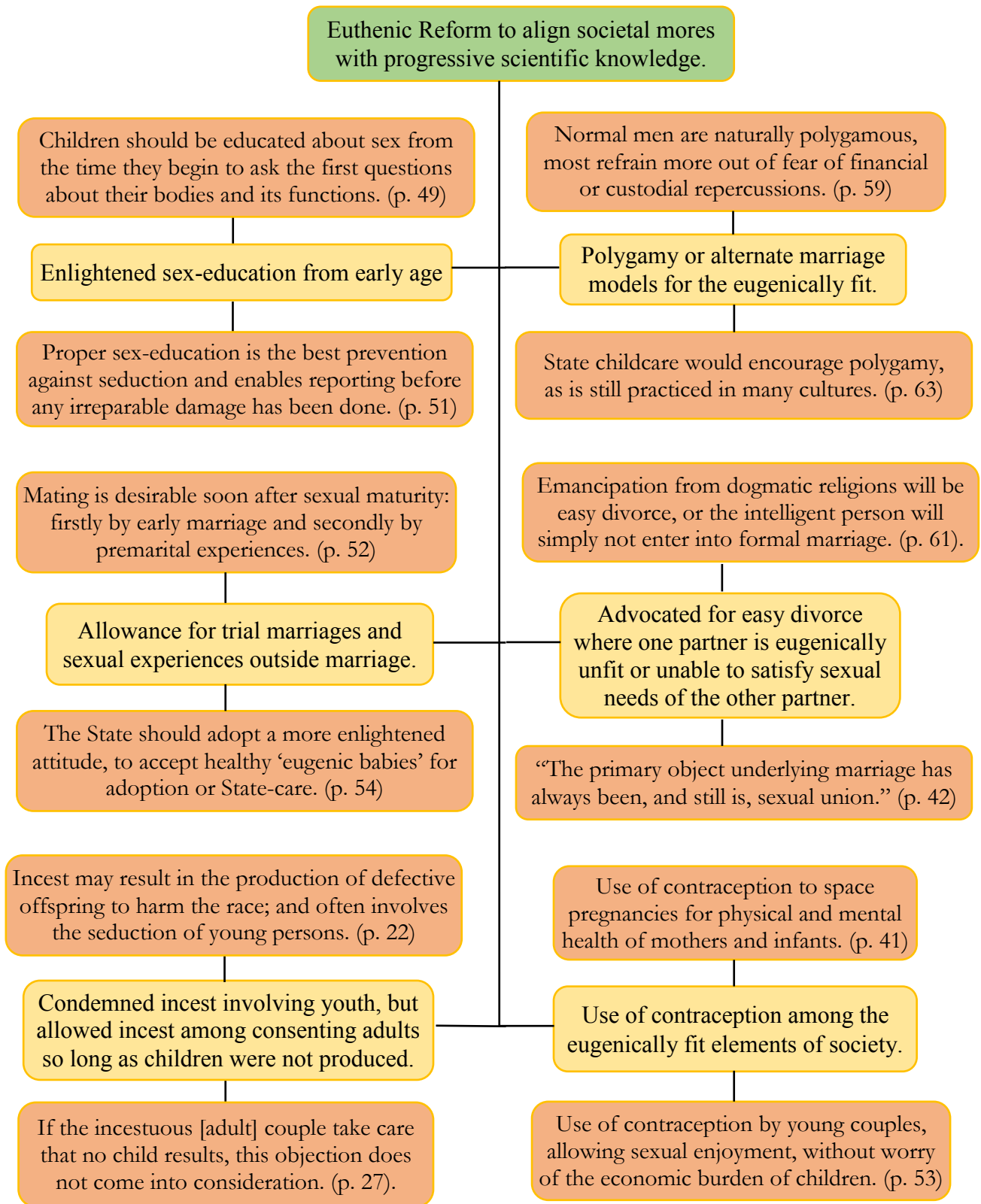
⁶⁴ See Figure 3-14 for an alternate but contemporaneous American expression of this sense of a ‘goodly heritage.’

⁶⁵ See *Hypatia* review in Appendix III for more on the merits and limits of rational polygamy among progressives.

is the sexual gratification of the parents. Indeed, a great many are born against the wishes of their parents, through the failure of contraceptives or abortifacients. Even where the parents deliberately procreate a child, it is more often with a view to their own comfort than that of the child. . . . And indeed, life holds so much unhappiness even for the most fortunate of us, that it is difficult to accept the traditional supposition that one's parents did one a good turn by bringing one into the world. For many of us it is truer to say that, whatever sacrifices our parents make, they can never compensate for the injury they did in bringing us into the world at all. (p. 68, 69)

After these enlightened marriage and child-rearing revolutions, Haire predicted “the relation of parents to children will be very carefully watched and controlled” by the State, first evoking hostility as “an unwarranted interference, much as the activities of the Society for the Prevention of Cruelty to Children is still regarded in some quarters” (p. 69). He also promised that undue harshness or undue indulgence will “both be considered as reasonable causes for interference; and special measures will be taken against those parents who try to live their lives for them” (p. 70). He tellingly moralized that “thwarted” parents “who have failed to achieve adequate self-expression and seek to find it by forcing their children into uncongenial occupations, will be judged quite unfit to bring up their children at all” (p. 70), perhaps projecting onto his own parents who ‘forced’ him into a medical career when his own innate interest was for the theatre and being an entertainer. He also predicted that the juries who decided these abusive cases “will not consist entirely of old people” (p. 70), but would contain a large proportion of young people, from 16 to 40, unlike such councils today. Haire admitted these changes would not completely end sexual unhappiness, for there would still be jealousy, or couples growing apart; but he looked forward to great progress once a rational alignment of biological-psychological-societal needs and modern morality had been achieved.

Through most of the first three chapters of *Hymen*, Haire had championed a liberal-progressive reform agenda, which would still be considered radical even in the ‘swinging’ 1970s, after the advent of the pill, legalized abortion and easy divorce had transformed marital-sexual law and politics. But he was about to drop the eugenic hammer and make the memetic analogue of a 180-degree turn, as the next section will detail. But first, before moving on to hardline negative eugenics and racial race-hygiene programs, Figure 3-23 on the following page illustrates the meme-clusters and some sample memes dealing with Haire’s advocacy for euthenics and social reforms to realign society to rational scientific principles, and banish obsolete religious taboos to the dustbin of history. Like eugenics in general, this echoed Galton’s (1883, 1904) fervent plea for a new secular religion for racial betterment, which would sweep away the remaining cob-webs of superstition and irrational sexual taboos, replacing these superstition with well-founded prohibitions based on eugenic science.



Color Codes: Memplex Meme-cluster Sample meme(s)

Figure 3-23: A partial meme-map for Haire's 'Progressive Euthenics' in *Hymen*.

As I previously asserted in Part I of Chapter II, I contend that Haire's proposed paradigm regarding marriage, sex and child rearing in *Hymen* memetically pre-figured Richard Dawkins' plea for a similar realignment of society based on scientific management informed by democratic choice and the application of memetics for progressive cultural evolution, at the end of the chapter on memes in his *Selfish Gene* (1976). This is true of most of the eugenically active volumes of *To-day and To-morrow*, but Haire took this to a higher level than most, without relying on futuristic notions like ectogenic reproduction or advanced 'newgenics.'

State Support of Children Necessitates Compulsory Eugenics:

Haire then returned to the subject of State-support of children, and it was here that the topic of compulsory negative eugenics was first discussed in detail. He stated that it was obvious that if we expected society to support children, "Society must have some say as to what sort of children, and how many of them it wants. Whoever pays the piper has a right to call the tune, and Society will be very definite as to its musical requirements" (p. 72). See Figure 3-25 on page 159 for an American example of this sentiment. He made a black-list of the sorts of people that should not be allowed to become parents, and echoed Paul Popenoe's popular appeal for "Eugenic Sterilization for Human Betterment," as featured in the November 1928 issue of *Eugenics* (presented in Chapter IV):

There will first of all be a strict law that men and women suffering from diseases, physical and mental, which are likely to be transmitted to, or to damage, their offspring, must have no children at all. If they persist in having children they will be sterilized forthwith. Sterilization does not mean castration, contrary to general belief—it can be carried out in both man and woman without any interference with physical or mental health, and without any disturbance of sexual desire, potency, or pleasure. In the light of present-day knowledge it is easy, safe, and harmless. Already in the United States of America, eighteen States have passed laws prescribing compulsory sterilization in certain cases and many thousands of men and women have been thus dealt with. Sterilization is enforced only after a complete examination and study by a board of experts, and is hedged round with every possible precaution.⁶⁶ Even now it is not uncommon for persons with a strong sense of their duty to Society, to be sterilized—epileptics, persons who have formerly been insane, or in whose own person or whose family there are heritable diseases. With an increasing sense of social responsibility, the number of people voluntarily submitting to sterilization will increase. (p. 72, 73)

⁶⁶ This common assertion is belied by a great number of cases, including in my home province of Alberta, which has the dubious distinction of having sterilized the most people of any province in Canada, and, on a per capita basis, almost any jurisdiction with the exception of Nazi Germany. Many victims were sterilized with only a token hearing, often not even hearing or seeing the intended victim in person. Alberta's Eugenic Sterilization Board was headed by the first professor of psychology and philosophy at the UofA, Dr. John M. MacEachern, listed in the *AES* directory of members in August, 1930, as one of nine Canadian subscribing members. See Figure 3-25 on next page for a partial listing of the International members of the AES, including two Canadian academics of eugenic renown.

He argued these prohibitions ensured an increasing “standard of fitness for parenthood” (p. 73) that could be modified periodically. Others would merely be compelled to use reliable contraception, for which Haire predicted great progress. If those compelled to use contraception violated the order, “the resulting offspring will be destroyed in the embryo-stage by a legalized abortion, or [if allowed to be born] it will be examined to decide if it should be allowed to survive or not” (p. 75).

Haire promised to return to these questions later, but for now offered a brief threefold justification for compulsory sterilization or contraception: alleviation of poor maternal health, the unfitness of parents, and for the better interests of society to avoid unfit children (p. 76). Echoing the infamous *Buck v Bell* decision of Justice Oliver Wendell Holmes, as summarized in Figure 3-24 on next page, Dr. Haire also appended the popular economic indictment against the ‘unfit’ and lamented the dysgenic effects of modern charity and humanitarianism, in this harsh proclamation:

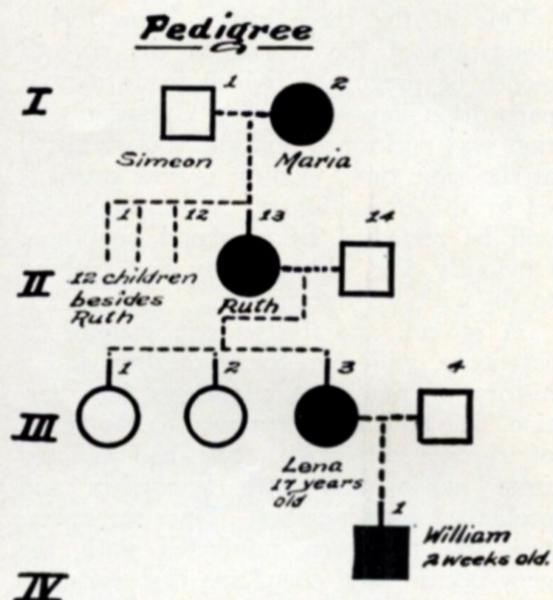
No crime is greater than that of bringing a child into the world handicapped from its birth by the inheritance of actual disease, deficient resistance to disease, or deficient life-energy... Physically or mentally defective children are of not use to Society—they are indeed a burden upon it... They are not only unproductive—they handicap the progress of useful citizens by competing with them for the struggle for existence; and indeed, with our modern extreme humanitarianism, we often pamper the weed to the detriment of the useful plant. (p. 76, 77)

CANADA	ENGLAND
<i>Subscribing Members</i>	<i>Subscribing Members</i>
Harris, Dawson	Corry, Edith
Harkness, David B.	Darwin, Leonard
MacEachran, J. M.	Hodson, Cora B. S.
McIlwraith, T. F.	Schiller, F. C. S.
Macklin, M. Thurlow	
Millay, Dr. and Mrs. E. O.	FRANCE
Montgomery, E. W.	<i>Subscribing Members</i>
Walker, Frank N.	Page, Mrs. Donald Omesby
<i>Active Members</i>	MEXICO
Clemens, Mrs. Lucy S.	
Revell, D. G.	
Robertson, Albert Duncan	

Figure 3-25: A partial list of international members of the *AES*, from an insert in *Eugenics*. Canadian members included University of Alberta psychology professor Dr. John MacEachern, head of the Alberta Eugenics Board. Dr. Madge Thurlow Macklin of the University of Western Ontario, was also listed elsewhere in the journal as a popular lecturer in eugenics and social-hygiene. British members included F. C. S. Schiller, author of *Tantalus* (1924 – see Appendix III), who was also a prolific reviewer of other *To-day and To-morrow* volumes in *The Eugenics Review*, including Haldane’s *Daedalus*. *Eugenics Society* Secretary Cora B. S. Hodson, also reviewed a few volumes, including Dora Russell’s *Hypatia* (see her critique of *Hypatia* for the *Eugenics Review* in Appendix III). Mrs. Hodson was featured in the *AES* journal *Eugenics* several times, while on an extensive lecture tour of America (see Chapter IV for more details).



Courtesy Eugenics Record Office



FOUR GENERATIONS IN A STATE ALMSHOUSE

A border-line family in which illegitimacy runs high, and whose members are not quite able to take care of themselves in modern society but must be aided by institutions. Maria, her daughter Ruth, her granddaughter Lena, and her two weeks old great-grandson are all state charges. It was instances of this sort which led Justice Oliver Wendell Holmes of the United States Supreme Court to say in an opinion upholding the Virginia law for the sterilization of imbeciles: "It is better for all the world if, instead of waiting to execute degenerate offspring,—or let them starve for their imbecility—society can prevent those who are manifestly unfit from continuing their kind. The principle that sustains compulsory vaccination is broad enough to cover cutting the Fallopian tubes. Three generations of imbeciles are enough."

Figure 3-24: Photo, pedigree chart and caption from Paul Popenoe's article on Eugenic Sterilization in the 2nd issue of *Eugenics* (Nov. 1928, pp. 9-15). The caption paraphrases the 1926 *Buck v. Bell* Supreme Court decision that became a template for compulsory sterilization legislation across America, in Alberta, and eventually in Nazi Germany; but not in Britain, despite Haire's advocacy.

Contraception and The Mothers of *To-morrow*

Next, Haire outlines the practical benefits of contraception for healthy parents in a four-point plan that recapitulates C. P. Blacker's *Birth Control and the State* (1926): To protect the mother from frequent pregnancies that overlap the period of lactation and provide a recovery period, to provide a proper start for each infant, and to adjust family-size to economic conditions (p. 77, 78). Even with State-care of children, and the assistance of nannies, many mothers would be overwhelmed and debilitated by frequent pregnancies, "unless we pick some women out to be *breeders*, and relieve them of all other activities so as to reduce the strain on their energy" (p. 79).

Dr. Haire foresaw the universal practice of contraception in the future “by all normal people” (p. 80) and saw the medical profession as being the best providers of contraception advice and training. He predicted that “Every Medical School will have its chair of Sexual Science; every large city will have its Institute of Sexual Science” (p. 80). He pointed to Germany as a pioneer, hailing the Universities of Königsberg and Berlin as exemplars. Eventually, medical students would be properly trained in sexology and in providing sound contraceptive advice. He criticized many of his current British colleagues for not providing proper birth-control information, with ignorance abounding, and with many doctors refusing “owing to some religious or social prejudice” (p. 81). As a result of this ignorance and hostility, many women turned to “nurses or to some other lay person for advice” (p. 81); but Haire insisted that no nurse or layperson is “competent to make the necessary psychological and physical examination,” or “give the necessary instruction as to its use” (p. 82).

In the future, Haire also saw doctors being compensated for keeping patients healthy and fit, not for treating diseased bodies or minds, or maintaining the unfit by a never-ending series of remedies and prosthetics. He bemoaned the perversion of medical-societal values that rewarded practitioners for lavishing care on the congenitally diseased or chronically ill, while neglecting the healthy or preventing illness in the first place. Again, he highlighted Germany as a pioneer in preventative medicine, maternal health centres and contraceptive advice. Haire predicted that birth-control centres in Britain would be the edge of a future wedge that forced reform and a rational attitude to sexual and maternal health, but for now they were only a “temporary expedient” (p. 84).

In a cautionary note, Haire also flagged the “one great disadvantage” of the “birth-control centre of to-day;” in that it barely ever reached “the persons who are *least* fit for parenthood” and he recommended extending the reach of sexual counseling to “hospitals, infirmaries, asylums, and prisons” (p. 84). He also posited a powerful role for social-hygiene education that would inculcate the public in “their duty to Society and to establish a public opinion which regarded the production of *desirable* children as a social service,” and conversely to make it “clear that the procreation of *defective* children is a grave offense against Society” (p. 85). Like the Popular Education Committee of the *American Eugenics Society*, he envisioned programs for positive and negative eugenics education.⁶⁷

At this point, Haire turned to the “dysgenic effects” of contraception, pointing-out that “it is at present used more widely by those who have a strong sense of social duty than by the irresponsible and reckless” (p. 85). See Figure 3-26 on the next page for an illustrative American analogue of this common argument that often divided traditional and progressive eugenicists.

⁶⁷ Dr. Florence Brown Sherbon, professor of child-care at the University of Kansas edited the Popular Education department in *Eugenics* (see this section in Chapter IV).



"HER SON"
\$4000 prize Statue by Miss Nellie Walker
Courtesy Chicago Art Institute

Who will be the Mothers of Coming America?

—

*The American Woman
is Rapidly Becoming Ugly*

—

Prof. Ross has proved it. When the low immigrant is giving us *three babes* while the Daughter of the Revolution is giving us *one* it means the Gibson and Harrison Fisher Girl is vanishing. Her place is being taken by the low-browed, broad-faced, flat-chested woman of lower Europe. If this continues it means a progressive loss of racial excellence, intelligence and power.

Imbecility and Genius are both Inherited.
Only opportunity will bring out inborn genius, but imbecility **always** shows.

FEEBLE - MINDEDNESS



Pedigree collected by Dr. H. H. Goddard.
The black ones are all feeble-minded.

GENIUS



Means Fellow of Royal Society,
Means Eminent in Science. Pedigree collected by Mr. and
Mrs. Whetham of England.

Imbecility is increasing. Great men are decreasing

COIT BUREAU
Cleveland

MUTUAL BUREAU
Chicago

WHITE BUREAU
Boston

Figure 3-26: A graphic representation of the dire concerns over ‘race-suicide’ (as coined by eminent American sociologist E.A. Ross – the “Prof. Ross” in the side-text), circa 1921. This advertisement combines concerns over the rampant ‘new immigration’ of non-Nordics from Eastern or Southern Europe and their high fecundity, versus the declining birthrate for ‘old-stock’ or ‘native-American’ women (as indicated by the reference to the “Daughters of the Revolution” and personified by the statues). Note the source of the dysgenic pedigree chart at left (H.H. Goddard) versus the positive exemplar of the eugenically inbred Darwin-Galton-Wedgwood clan at right. The *AES* used pedigree charts like this to educate the public in positive and negative eugenics.

Haire admitted it was impossible to close the Pandora's Box of contraception, but argued that "we should correct this one-sided application of... useful knowledge, by making information available to those who need it and do not possess it" (p. 86). He looked forward to a time when contraception "will be specially directed to those who need its most; while persons who are fit for parenthood will be encouraged to have a moderate number of children" (p. 86). He also dismissed the complaint that contraception was leading to widespread pre-marital or extramarital intercourse, and countered that by allowing early marriage and promoting happier marriages, it would actually decrease fornication and adultery, or other "irregular unions" (p. 86).

Newgenics and Non-racial Race Hygiene

Next, Haire switched topics to discuss the leading-edge and futuristic reproductive techniques that were decried by Ludovici in his "fascist, anti-Feminist rant" (Shraner, 2009) in *Lysistrata* (1925), and to which Haire had distanced himself in his foreword. First he considered artificial insemination, as already practiced by animal breeders, predicting it would be "increasingly employed for impregnating women who do not desire to mate in the ordinary way, and for obtaining large numbers of children from especially desirable fathers" (p. 87). This foreshadowed the later scheme devised by Herman J. Muller and William Shockley, in their 'Repository for Germinal Choice' (Engs, 2005, p. 99 - see my review of *Galatea* (1927) in Appendix III for more on Muller and his eugenic entanglements). Haire also considered it likely that these techniques would be extended to allow for surrogate motherhood, either human or animal, as expounded by J. B. S. Haldane in *Daedalus* (1923). He cited Haldane and his conception of *Ectogenesis*, and predicted its advent "sooner or later in the human being" (p. 88). But Haire went further, adding his own twist to Haldane's scheme:

Ectogenesis may go even further. In the case of the accidental death of a woman particularly suitable for parenthood, her reproductive glands may be transplanted into a female animal which has already had its own reproductive glands removed. Artificial fertilization with human spermatozoa would then give rise to a human embryo which would be incubated and brought to birth by the animal host. Only a few months ago a French scientist announced that he had succeeded in performing such a transplantation and fertilization, in a female monkey; and, at the moment of writing, the birth of a human child from the simian mother is eagerly awaited. But whether this particular scientist has succeeded or not, there can be little doubt that the thing will be achieved sooner or later. (p. 88, 89)

After this brief brush with future 'newgenics,' Haire also hailed contraception and sterilization for making "deliberate abortion to become much less frequent. *Abortion is to be condemned*" (p. 89). Haire explained that abortion is a serious disruption of the physiological cycle, and "must always be

a considerable strain on a woman's health" (p. 89), even under the best circumstances. Even worse, when practiced "clandestinely, *it is very dangerous and productive of a very great amount of ill-health*" (p. 89). He reminded readers that "in most civilized communities to-day" abortion was illegal, and "no doctor with any reputation to lose will undertake it" (p. 89). But he also noted that "Soviet Russia has legalized abortion during the first three months of pregnancy; and permits it to be carried out in public hospitals under the most perfect conditions; and maternal mortality and ill-health there may be expected to decrease" (p. 90). Haire predicted the Soviet example would be followed by other nations, but again stressed its eventual diminishment, reserved for situations where contraception had failed or not been practiced "and in which it is very undesirable that the child should be born" (p. 90).

Proceeding to the next logical step from legalized abortion, Haire predicted "the legal adoption of infanticide" (p. 90). He explained how this progression would serve as a precaution of last-resort to prevent the production of undesirables, and explained how early opposition would be overcome by creating expert medical panels that would prevent errors in circumstances such as his own:

Citizens would be sterilized or encouraged to use contraceptives if it were undesirable that they should have children. If by accident conception occurred, recourse might be had to legalized abortion. But when any child were born deficient, it would be destroyed at birth—or as soon after birth as its deficiency became unmistakable. Infanticide would at first be opposed on the grounds that mistakes might be made, or that it might be used for putting out of the way children who were, for some unworthy reason, not wanted. The possibility of abuse or error is inseparable from the most useful of social institutions, but eventually effective safeguards would be arranged. It is probable that defective babies would be examined by a carefully chosen board of medical experts who would consider the case and then decide the verdict. They would be no more liable to error than, say, the judges of to-day who decide whether a man charged with murder is to be executed or not, or the doctors who decide for or against a serious operation. (p. 90, 91)

Not pausing for respite, Haire steamed down the same memetic tracks Ludovici had laid in *Lysistrata* (1925), and that were soon to be followed in his spiritual home of Germany. Under the Nazi leadership, medical boards of eugenicists and hereditary courts of race-hygiene experts were established under the *Law for the Prevention of Hereditarily Diseased Offspring* (1933), and realized under the auspices of the *T-4* Euthanasia Program, begun in 1939 (Engs, 2005, p. 159). In Haire's conception the scheme was rationalized as a form of preventative medicine:

Later still, Society will probably exercise the right of painlessly destroying persons who are a menace to it, either physically or otherwise. Such executions, and indeed all deprivation of life or liberty, will be carried out in a spirit, not of punishment, but of prevention. (p. 92)

It should be stressed that Haire rarely used the term race, and there was no hint of Nordicism or any kind of scientific racism in *Hymen*. Although he was obviously a strict hereditarian, Haire was at least agnostic as to the racial worth of people, only betraying a typical class-consciousness for his time, and equating progressive civilization with eugenic ideals. So, as with his series partner Ludovici's prophecies in *Lysistrata*, Haire could still be acquitted of premediated malice, even if their predictions were to be co-opted by the Nazi's for their own sinister racial purposes. It may also be significant that Haire never cited or referenced Sir Arthur Keith, or other anthropological experts, as so many other authors in the eugenically-active volumes of *To-day and To-morrow* had done.⁶⁸

So, although he did not envision the anti-Semitic or racial aspects of the German race-hygiene pogroms, nor could he have even fathomed these at this time, Haire went even further: predicting the legalization of assisted suicide upon request, even without serious illness, a prophecy that only in *this* century is becoming both widely discussed or a nascent reality in a few jurisdictions:

But long before the adoption of infanticide, Society will have recognized and legalized the citizen's right to suicide, or euthanasia, at his own request... if an individual no longer finds sufficient happiness in life, he or she has a perfect right to abandon it. Suicide will probably be much more frequent than it is at the present day... It will take the form... of an easy and agreeable induction of sleep, from which the patient will not wake. (p. 92, 93)

Figure 3-27 on the following page illustrates a number of key meme-clusters and sample memes for Haire's brand of hardline negative eugenics. In his final prediction before beginning his summation, Haire predicted the gradually aging demographic of Western societies in the late 20th and early 21st Centuries, though he put a definite positive spin on it, without any mention of the corresponding socio-economic problems. He foresaw significantly extended life-spans, fewer babies and children relative to adults, and "a greater number of older people" (p. 93). He credited a lessened "struggle for existence" (p. 93) for these future developments, due to decreased population pressures and improved medical science and aided by a "general practice of 'Rejuvenation'—either by grafting or by injections of organic extracts" (p. 93).⁶⁹ These predictions for an aging population that would turn to medical science (and quackery) to keep them vital was realized as the Baby-Boom generation began reaching middle-age in the 1980s, making cosmetic surgery and other rejuvenation schemes a growth industry.

⁶⁸ This was before Keith added *Ethnos, or the Problem of Race* (1931) to the series. See review in Appendix III.

⁶⁹ Here Haire inserts a footnote reference to one of his previous books: "See my book *Rejuvenation*. London 1924." A later series addition, *Metanthropos, or the Body of the Future* (1928), by R.C. Macfie, also predicted a much increased lifespan (regularly over 100-years of age) and a similar increase in efficiency through old-age, and he also hailed hormone injections to improve brain function and such problems as diabetes. See full review in Appendix III.

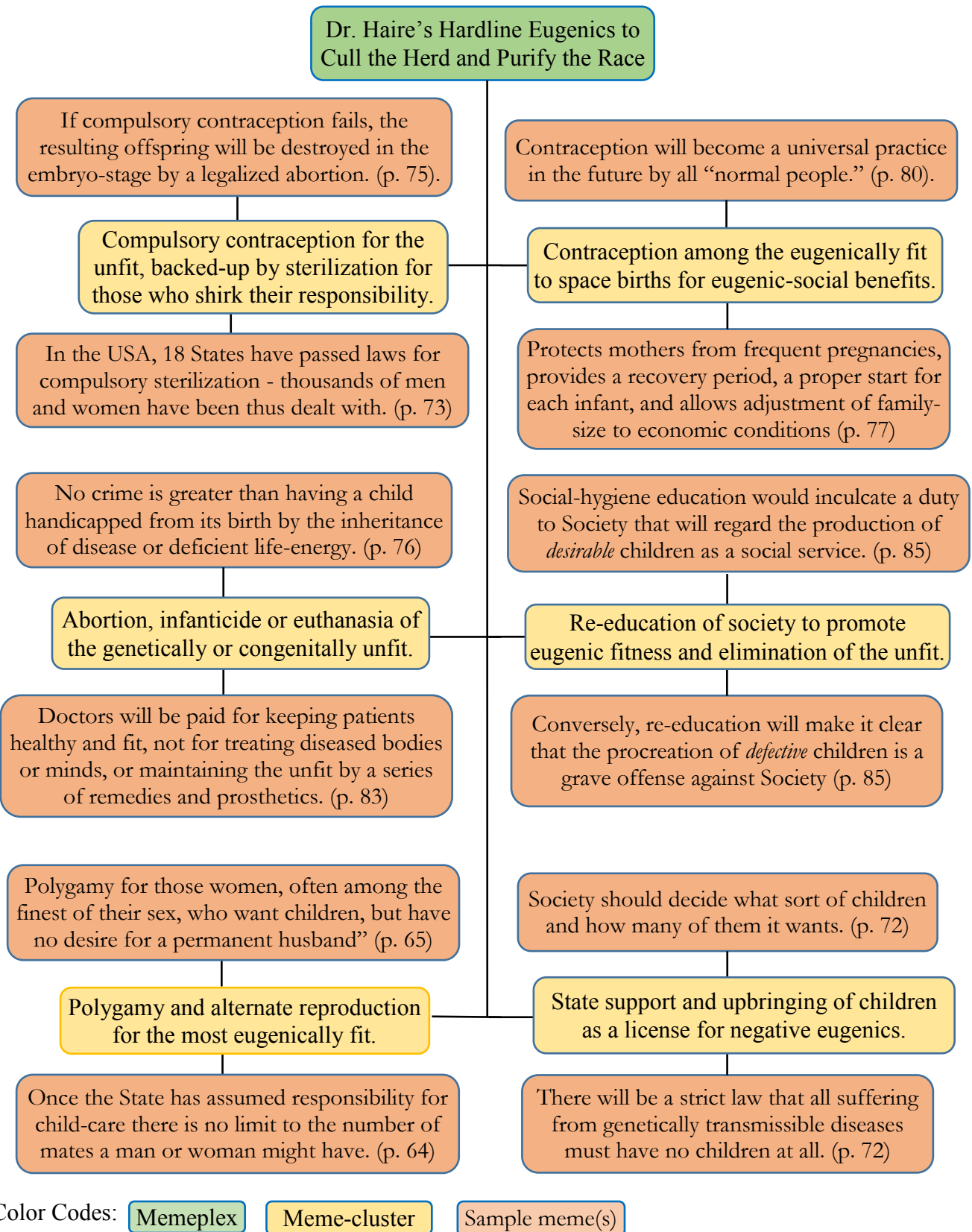


Figure 3-27: A meme-map for Haire's Hardline Eugenics in *Hymen*, covering sterilization, infanticide, euthanasia and other draconian practices that are closer to 1942 Nazi Germany than 1927 Britain.

In the final two chapters of *Hymen*, Haire presented his summation and provided a few clues of his sexual dissatisfaction and motivation. He began with another appeal to “better sex-education and improved facilities for normal mating soon after maturity,” fully expecting that the “vast majority of mankind will find happiness in a normal union” (p. 94). He also granted his medical absolution and predicted a decrease, both in suffering and in numbers, for those ‘sexual abnormal’ (like him) who:

Owing to inborn glandular defect or to mistakes in education which lead to psychological disorders, there will probably remain an ever-diminishing number of sexually abnormal persons, for whom normal mating is impossible. These abnormal will be regarded as the victims of an inborn or acquired defect, for which they will not be held responsible. (p. 94)

But after this concession, Haire immediately rushed to the defense of the fundamental rights of other (normal) citizens, especially children, with the harsh admonition that:

if such abnormal infringe these rights, they will be subjected to some sort of *preventative* treatment... by medical means, by segregation, or in the last resort by painless death... *The young must be protected, far more carefully than they are to-day*, from seduction by persons of either sex, whether normal or abnormal, and whether the seducer is a relative or not” (p. 94, 95).

There was no explicit identification of these abnormal, but there was also no parenthetical stipulation of “(heterosexual)” abnormal, leaving open the possibility for inclusion of homosexuals in his tolerant society of the future. So having defended the vulnerable youth, Haire granted a great deal of liberty and license to those abnormal who abided by the Golden Rule, even offering the hope of future cures, or at least benevolent indifference:

But so long as the sexual rights of others are not interfered with, and no undesirable children result, the sexual relations of two mutually consenting adults will probably be considered the private concern of the two individuals involved. We shall cease to persecute the unfortunate abnormal; and instead we shall endeavor to cure them. Where cure is impossible, we shall not interfere with their rights as long as they do not interfere with the rights of others. (p. 95)

Chapter V (p. 96), consisted of a one-page final disclaimer for the accuracy of his predictions, especially the minor details, along with a defense of his ultimate objectivity, high ethical standards and a genuine desire for progress and happiness. It is excerpted in its entirety as Figure 3-28 on the next page:

HYMEN

V

My prophecy is at an end. I make no claim to omniscience or infallibility. I claim only a fair amount of intelligence, a certain capacity for objectivity which one does not meet in one's fellows as often as one could wish, a high ethical standard, a well-developed social sense, and a real desire for the increase of human happiness by the removal of unnecessary causes of suffering.

It may be that in many details the changes I look forward to would prove less useful than I suppose. It may be that new discoveries will lead to new conditions which will alter our social needs.

Whether I am right or wrong in detail is of no particular importance. I have no desire to persuade others to accept my standards: I aim only to stimulate them to think for themselves, and to endeavour to arrive at rational standards of their own, based, not on superstition, but on the fullest knowledge that they can obtain.

Figure 3-28: The final page of *Hymen*, where Haire defends his motives and authority and disclaimed any responsibility for inaccurate predictions. Like Haldane's *Daedalus* and other eugenically and philosophically sensitive volumes of the series, he invoked the ultimate disclaimer of Socrates and his disciples: to search for one's own truth through the acquisition of rational knowledge. (p. 96)

Contemporary Reviews and Critical Reactions

As one would expect for a book featuring bold discussions of sexual topics, *Hymen* was reviewed in several period magazines or journals. Two exemplars are provided here. The first, appearing in the American magazine *The Nation* (Sept. 5 1928, p. 231), is anonymous, and short enough to include in total. See Figure 3-29 below. The already “immunized” (p. 231) reviewer was not so much impressed with the eugenical aspects of the book, as much as the novel sexual and marital material. The radical concept of ectogenesis seems to have sparked a certain amusement, before fading into a bland sense of déjà vu over the unoriginal Utopian ideas expressed by Dr. Haire.

Hymen, or the Future of Marriage. By Norman Haire. E. P. Dutton and Company. \$1.

To one who has been immunized against so-called “startling sex discussions” this brief discussion of marriage today and its future tomorrow seems to have fallen short in its prophetic proclamations. The book contains a plea for companionate marriage for the young, accompanied by the necessary frankness in sex discussion. All this would avail naught without legalized birth-control information and easy divorce. So much for the today of marriage. Tomorrow there will be brilliant possibilities for marriage as an institution. Though “life-long monogamous marriages are the ideal,” legalized polygamy will also prevail. Men and women will be equally self-supporting. Children will be educated and cared for by the state if it is economically necessary. Men and women unfit to become parents will be sterilized, and the logical accompaniment of this will be legalized abortion and state infanticide of unfit children. To cap the future of marriage, as it were, there will be artificial reproduction or ectogenesis. Babies will be born in glass tubes! This little book contains a galaxy of sex concepts—all of them have been found in one or another of man’s Utopias.

Figure 3-29: An anonymous eugenic layman’s review of the E.P. Dutton (American) version of *Hymen*, published in *The Nation*, from September 1928 (p. 231).

Of more interest for students of eugenics, is the review of *Hymen* in *The Eugenics Review* (April 1928, p. 322-323), written by fellow series author and future secretary of the British *Eugenics Society*, Dr. C. P. Blacker (*Birth Control and the State*, 1926, see review in Appendix III). True to the same stated commitment to objectivity and academic detachment as Haire, Blacker resisted editorializing until the last two paragraphs (see Figure 3-30 on next page). Blacker took issue with Haire’s seeming preoccupation with the non-procreative aspects of sexual relations: “to the virtual exclusion of the parental” (p. 322); fearing Haire’s conception of future sexual relationships would do considerable violence “to the ideal of the family” (p. 323).

This view is representative of the more conservative elements of the medical profession that Haire earlier condemned as “illiberal” (p. 82), and is more typical of mainline eugenicists in America and Britain. The final sentence is almost condemnatory in tone, suggesting that a eugenic-minded society of the future will be a bigger impediment to Haire’s utopic visions, than the “religionists” that Haire regularly criticized. See Dr. Blacker’s full review of *Hymen* in Figure 3-30 below:

Haire, Norman. *Hymen, or the future of Marriage.* Kegan Paul. 1927. Pp. 96. Price 2/-.

DR. HAIRE argues that the existing outlook on marriage and on sex is anachronistic in that it is mainly based on the moral code of the ancient Jews, to whose social conditions it was once appropriate. This anachronism is betrayed in the condemnation of incest and in our tolerating the reproduction of the grossly unfit. It is also revealed in the conventional attitude to prostitutes and to birth control. “The primary object underlying marriage,” says Dr. Haire, “has always been and still is sexual union,” and with this assumption in view, the author then outlines the principles by which parents should be guided in educating their children to a proper conception of sex problems. This educative process should culminate at puberty. At puberty “mating should take place without further delay.” But such early mating is only made possible on two conditions, those of early marriages, accompanied by facilities for divorce, and of premarital unions. These, in Dr. Haire’s opinion, will result in a diminution in the incidence of venereal diseases, in a replacing of the professional prostitute by the voluntary mistress and in an improvement of the status of the professional prostitute. Also male hetero-sexual prostitution will increase.

Though lifelong monogamy is the ideal to be aimed at, the emancipation of women will result in an increase of the tendency of women towards polygamy. Women may ‘claim it as their right’ to support men, and their children will be supported by the state. By the last measure polygamy will be encouraged and facilitated. In fact persons contemplating marriage will state whether they desire monogamy or polygamy in the relationship.

The rearing of children by the state will generate a widespread interest in Eugenics, which will be state-controlled. The practice of contraception will become universal, but it will be carried out by a sense of social responsibility. Artificial insemination will be increasingly employed; more, young embryos will be removed from their mother’s wombs and grown in the wombs of women volunteers or of animals. Ovarian transplantation from one woman to another will be practised. But abortion will become less prevalent. Eventually society will undertake the painless destruction of those persons who are physically or in other respects a menace to it,

and will legalise voluntary suicide. And lastly the span of life will be lengthened by the practice of rejuvenation so that there will be fewer children in proportion to adults in the society of the future.

It will be noticed that in Dr. Haire’s prophecy, considerable violence is done to the ideal of the family; further, the sexual aim of marriage is stressed to the virtual exclusion of the parental.

If the reviewer may be permitted to make a prophecy on Dr. Haire’s prophecy, it would be this: that the realisation of Dr. Haire’s conception of the future of marriage will be more effectively opposed by the valuation set by the world at large upon the ideals of the family and of parenthood than by the blindness of religionists who are the bug-bears of the book.

C. P. BLACKER.

Figure 3-30: C. P. Blacker’s review of *Hymen* in *The Eugenics Review* of April, 1928 (p. 322, 323). Haire was never a central figure in the British *Eugenics Society*, unlike Blacker, but he would have travelled in some of the same social circles or been involved in allied organizations, like Birth Control advocacy.

Final Musings on Haire's *Hymen*

Even in the less racially-charged memetic environment of Britain in the Interwar-era, Haire's status as an outsider (as theorized by Sir Arthur Keith (1948) in his later In-Group/Out-Group paradigm) put him at a distinct disadvantage in the elite circles of the British eugenics movement. Compared to native-born Anglo-Saxon 'thoroughbreds' like C. P. Blacker, J. B. S. Haldane, Sir Arthur Keith, Dora and Bertrand Russell, or F. C. S. Schiller, Dr. Haire was something of a dark-horse. As the son of Polish-Jewish immigrants to Australia, without a noble English pedigree, and being an outsider to the system of private English preparatory schools and elite universities enjoyed by his *To-day and Tomorrow* 'betters,' Norman Haire was confined to the relative periphery of the movement. This is even without consideration of his status as a confirmed bachelor with unorthodox ideas on reforming ingrained Victorian sexual taboos, or his fervent hope to see them formally and popularly eradicated in children, youth and unmarried adults through frank, secular sex education.

Yet, in his visions of the future of sexual relationships, Haire went further, and as a prophet came closer to our to-day than any other series author. Even though he never explicitly advocated for same-sex relationships (*The love that dare not speak its name*), he implicitly addressed the unstated possibility of tolerance for and benevolent indifference to consensual adult relationships of all sorts (as opposed to Ludovici's proposal in *Lysistrata* (1925) for Capital punishment of sexual deviants). His tolerance of incestuous adult relationships is probably still too 'enlightened' for even the most ardent sexual revolutionaries of the Free Love or Feminist movements in the British or American 'counter-cultures' of the 1960s and 1970s, or the gay-rights activists of today. But what is more remarkable for this reviewer, is that the draconian eugenic programs that Haire advocated for were **not** what offended polite society or eugenic circles of his time, as much as his pleas for the sexual-moral revolution that we now take almost for granted. His hopes for formal sex-education have been more scantily realized, yet still provoke the most vociferous opposition in many 'civilized societies' today, from many of the same "religionists" that were Haire's "bugbears" in 1927 (see Blacker review in Figure 3-19). Some mainstream memplexes never change, it would seem.

In terms of his eugenic pronouncements, they are not as explicit as some others in the series that came before him (Schiller, Ludovici), especially in relation to the fear of 'racial degeneration.' It is curious that Haire rarely used the term "eugenics" in its positive aspects, only its negative "dysgenic" variant. In terms of positive reforms, Haire's recommendations are as often euthenic as eugenic in their focus, and are pitched more as medical advancements or social adjustments, than as explicitly eugenic remedies.

In his advocacy for negative eugenics to combat dysgenic evils, Haire came closer to the applied Nordicism of compulsory American programs and the strictly enforced race-hygiene pogroms of Nazi Germany than any series author, with the arguable exception of Ludovici's *Lysistrata*. Given the Zajac/Zions family's geographical origin, race and religion, and Haire's alleged sexual orientation, he would have been a very high-priority target for the SS guardians of racial purity and Aryan morals in his self-professed spiritual home of Germany, despite his advocacy for the programs they boldly adopted. As a scholar of *To-day and To-morrow*, this is the pinnacle of irony in the series. Haire lived long enough to witness the Wartime realization and post-War dissection of many of his race-hygiene visions, as practiced by the most fervent prophets of a new secular world order and devotion to hereditary excellence. This realization was likely a more harsh punishment than any negative review or critical denunciations he might have endured in the 1920s. While he did not suffer the dire fate of so many of his former countrymen in Poland, Haire was to experience his own troubles soon.⁷⁰

Swansong for the *To-day and To-morrow* Series

This concludes my historiographic presentation of the selected volumes of the *To-day and To-morrow* series for this chapter. The reader is encouraged to consult any other reviews in Appendix III that are of particular interest. Even from the five volumes covered here, it is obvious that the series proposed and prophesied an almost bewildering array of memes from across the political spectrum, and disparate memplexes from across the hereditarian-environmentalist spectrum. From methods of conception to contraception and sterilization, life-adjustments from childhood to death, social prescriptions for working poor to leisured aristocrat, from novel scientific-technological-social solutions to traditional religious cures, the series had something for everybody. What is remarkable compared to contemporary American eugenics is the relative lack of explicit racial references; instead class and gender were the dominant societal factors in most volumes.⁷¹

⁷⁰ The 1930s were not kind to Haire. He began suffering from diabetes and nephritis, as a result of his lifelong zest for food (Forster, 1996), before the benefit of the hormonal therapies he predicted were realized (e.g., injectable insulin). Haire escaped to Australia before the Luftwaffe's 'Blitz' overwhelmed eugenicists' initial enthusiasm for Nazi eugenics, and before the graphic revelations of the extent of their sterilization and euthanasia programs, or the industrial race-hygiene pogroms that followed. In Australia he initially enjoyed a renaissance of his earlier celebrity, as an actor, author, lecturer and debater. Ironically, it was his ardent support for population control in a nationally broadcast celebrity debate on the ABC radio-network, in August 1944 (at the time the Red Army was liberating the first concentration camps in Nazi-occupied Poland), which most contributed to Haire's downfall as a darling of Sydney High-Society (Forster, 1996). He returned to Britain in 1946 to a cool reception. The 'select bibliography' on his official biography page (Forster, 1996) does not list *Hymen* among his many works.

⁷¹ Outliers like F. G. Crookshank's *Mongol in our Midst* (1924, 1931) actually helped to define the non-racial memetic mean of the British eugenics memplex in the Interwar years. See the review in Appendix III for details.

That so many of these futuristic memes and schemes were eventually realized in the subsequent decades of the 20th Century, or only now in our present, is a testament to the prescience of the authors of the series and the power of memetic cultural evolution to generate new possibilities for expression and create new social niches for those memotypes. That these predictions were usually fulfilled in unforeseen places or circumstances is a telling reminder of the inherent unpredictability of the ‘progress’ of human civilization, just as Dawkins’ *Selfish Gene* (1976) and later *Selfish Meme* (1982) thesis predicted. Other endangered memes, like the neo-Lamarckianism of *Galatea* (1927), actually declined further; except in those autocratic regimes that vigorously enforced them (e.g., Lysenkoism in Stalin’s Russia). The raw memes and integrated memeplexes of the Interwar years, including rival eugenic programs and euthenic reforms, became the raw grist for the ruthless mill of ideologies that operated during World War II, and onward into the Cold War-era and beyond. Some of the series authors actually survived to witness their predictions being fulfilled (in Haire’s case, with Nazi eugenics programs and race-hygiene pogroms), while others mercifully died before their dystopian visions were expressed as a memetic phenotype (memotype).

As noted before, the great variability of opinion, thematic subject matter and component memes discussed, makes the *To-day and To-morrow* series a valuable instrument for a macroscopic survey of the Interwar meme-pool. This is especially true for the situation in Britain where eugenics largely remained an academic ‘gentlemanly hobby’ pursued by a relatively small intellectual elite, with only minor incursions into the popular Zeitgeist. Eugenics in Interwar Britain did not reach a critical mass of committed disciples and zealous converts to the cause, at least so far as more controversial or draconian aspects of negative eugenics and scientific racism were concerned. So although Britain was the birthplace of the modern eugenics paradigm or worldview, it would be up to its memetic colonies in America and Continental Europe (especially Germany) to expand Galton’s applied science and secular religion into a social movement that could achieve mainstream penetration and substantive legislative action.

This chapter also serves as a contrasting memetic portrait to the more ideologically coherent, popularly targeted, and racially motivated agenda for eugenics and its formal, popular and professional evangelization in the *American Eugenics Society’s* (AES) official journal: *Eugenics: A Journal of Race Betterment* (1928-1931). This journal-magazine began its production run at the height of the American movement in the last years of the ‘Roaring Twenties,’ and persisted into the first years of the Great Depression, before succumbing to its stifling economic fortunes, mirroring the fate of the *To-day and To-morrow* series across the pond, which ceased production in the same year (1931).

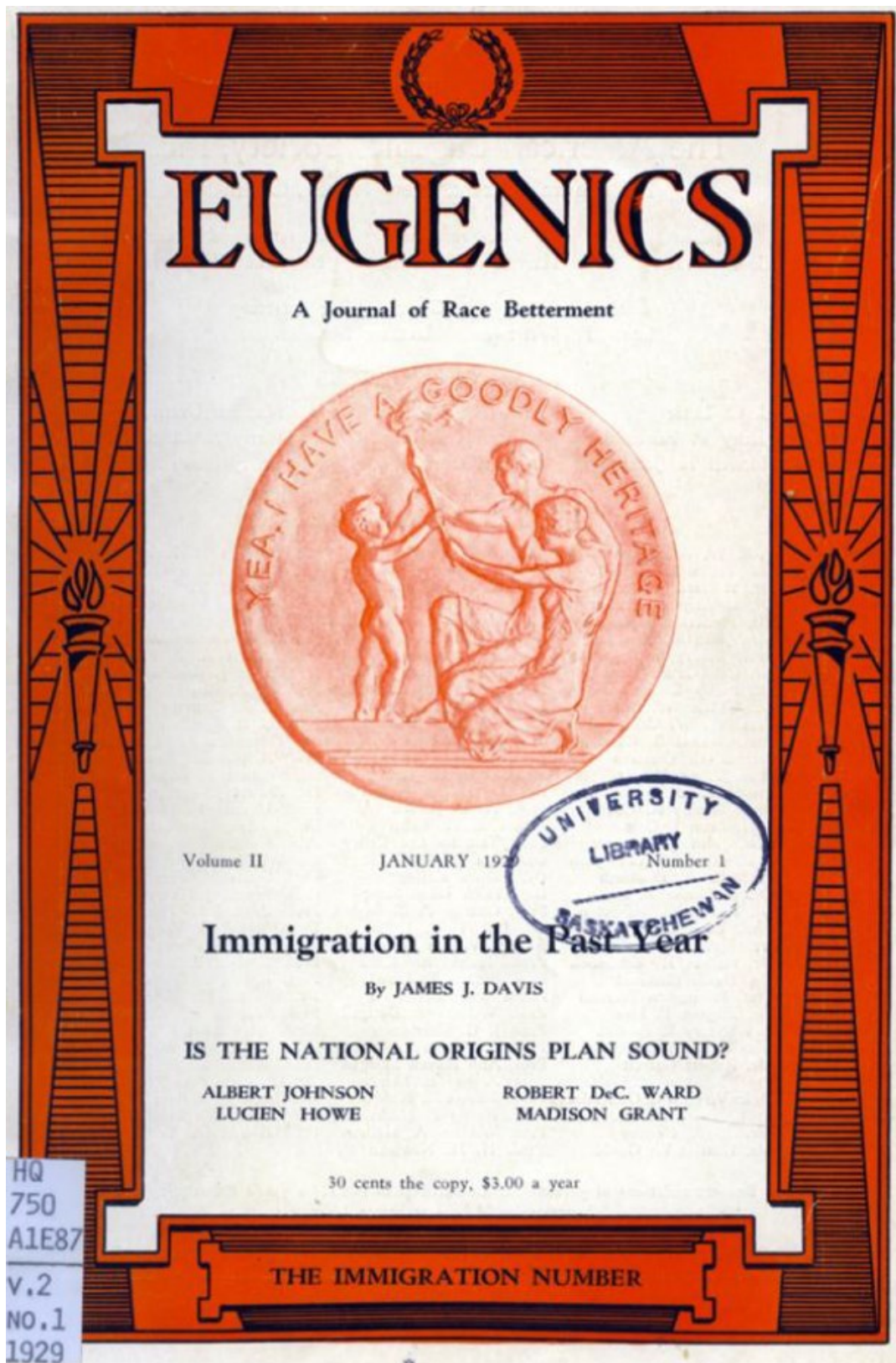
Looking Forward to American *Eugenics* and the Rest of this Dissertation

Eugenics, as one would expect from a specialty publication, reached a smaller base of readers that never exceeded 2500 members (Cravens, 1972). But it also boasted a committed core of zealous enthusiasts and ardent professionals, guided by an active editorial board of *AES* insiders, and promoted by politically powerful players at the pinnacle of American societal elites. These very active memetic agents could affect real legislative action in the more decentralized Republican system, resulting in Federal and State laws. This was particularly true along the Eastern Seaboard, where the American eugenics establishment was concentrated. But the fervor for eugenics and racial-hygiene also spread to the traditionally racist South, and to the burgeoning Southwest states on the periphery of an expanding empire during the first-half of *The American Century*. It is to this short-lived journal, inaugurated at the height of the eugenics movement there, combining the educative functions of a popular magazine for laymen and a professional journal for the committed base that this presentation will turn to next. This innovative journal optimistically worked to evangelize new disciples into Father Galton's secular religion, and inculcate the memes to *Make America Great Again*.

Chapter IV consists of an introduction to American eugenics organizations and the premiere issue of *Eugenics* in October 1928, followed by a series of thematic sections covering the three main emphases or target audiences for eugenics education: popular, formal and professional. The final section deals with the sudden end of *Eugenics* and the lone issue of *People* in early 1931. While many of the same memes from *Today and To-morrow* will be replicated in the American memeplex, the divisive racial elements of American eugenics will become apparent, and signal a major memetic departure from the class-based eugenics of their contemporary British cousins across the Atlantic. Chapter IV also provides a much more fulsome answer to part a and especially part b of my research question, especially for the formal and professional education aspects of eugenics education. It also addresses some additional elements for part c, which will be collected and presented in Chapter V.

Following the extensive presentation of memes and themes from this uniquely American source, Chapter V will further analyze, compare and contrast these two primary sources. This trans-Atlantic comparison will include expert commentary from two renowned British peers: J. F. C. Fuller in *Atlantis* (1925), and C. H. Bretherton in *Midas* (1926). These 'Travelogue' volumes offered the predominately British readers of *To-day and To-morrow* an exciting glimpse into the exotic lands and mythical worldviews of America, and rendered their prophecy for its incipient future. Both volumes featured revelatory narratives on numerous eugenical hot topics, especially the racial issues in America that were largely foreign to the mainstream British worldview of the time.

Chapter IV: *Eugenics: A Journal of Race Betterment* (1928-31):
Official AES Organ for Formal, Popular & Professional Eugenics Education



Chapter IV: *Eugenics: A Journal of Racial Betterment* (1928-1931)

This extensive chapter consists of five major sections, described below. It is accompanied by a separate image file that features photos, tables or charts, and scanned excerpts from the journal.

1. **Introduction to American Eugenics Organizations**, including the *Galton Society of America* and the *American Eugenics Society* (AES). This section also features a comprehensive review of the debut issue of their official journal: *Eugenics: A Journal of Racial Betterment* (EJoRB). **Pages 177-203**

2. **The Popular Education Department of *Eugenics*** – Focus on Popular Education.
This section will examine the regular Popular Education column, edited by Professor Florence Brown Sherbon, one of the few women in a leadership position in the AES. Sherbon’s column served as a catechism for educating the interested layman. It was to people like Dr. Sherbon that the AES looked to bring in new converts to the secular religion of eugenics. **Pages 204-226**

3. **Eugenical Institutions Department**– Focus on Formal Eugenics Education.
This section will cover the eugenic institutions profiled by the journal in this semi-regular feature. These select institutions included colleges and universities that offered formal education in eugenics, either ‘civic-biology’ courses or more specialized eugenics courses in the natural or social sciences. In addition some specialized institutes that carried-out research in eugenics were profiled. Part of this feature was dedicated to the faculty and graduate students involved in these programs and discuss their research programs. These profiles also featured some of the academic authors of eugenics textbooks. It was the only regular feature in the journal to focus on formal education. **Pages 227-231**

4. **Immigration and Legislation Departments** – Focus on Professional Education and Lobbying.
This section will examine the efforts of the AES to advocate for strict immigration restriction legislation and policies to limit non-Nordic immigration in America, as well as measures for eugenic segregation and sterilization. *Eugenics* also served as a forum for political lobbying and awareness campaigns. Of all the regular departments in *Eugenics*, these two came the closest to fulfilling a professional education function for the committed core of the movement, and featured some of the top leadership of the AES and Galton Society members as editors and contributors. **Pages 232-258**

5. **The End of *Eugenics* and Lone Issue of *People Magazine*** – Focus on Popular Education.
The final section studies the demise of the journal and profiles the only issue of *People Magazine*, which was supposed to propel the movement to mainstream status, but instead died after a one-issue whimper in a depressed ‘bear market’ for eugenics memes, as yet another economic casualty of the worsening Great Depression. **Pages 259-290**

Appendix IV features reviews and analysis of additional regular departments of the journal, including the ‘*Eugenics*’ Symposium’ and ‘Eugenics and the Church.’ The final section examines three longer-format feature articles covering the three bases of eugenics education: popular, formal and professional. Like Chapter IV, there is also a combined image file for these sections.

This chapter is the memetic-core of my dissertation: both in terms of developing a coherent view of the American eugenics paradigm and hereditarian worldview (Research question part a), and exposing the three main prongs of the educational efforts of the American Eugenics Society (AES) and other organizations in the American movement. These three prongs (popular, formal and professional-political education) were each fed and nurtured by the variously targeted regular departments, and by the feature articles that fleshed-out the AES's agenda and revealed the memetic thrusts of the journal to educate the progressive public (Research question part b).

While the *To-day and To-morrow* series provided a wide panorama of paradigms and worldviews from across the hereditarian-environmentalist divide, *Eugenics* reveals the nuances and finer details of the Nordicist and Reform Eugenics strains of eugenics, as introduced in Chapter II. Although the journal-magazine occasionally featured dissenters from the eugenics creed, these are often merely foils for rhetorical attack and counter-responses from the devoted inner-circle and their allies in the movement. While successful volumes of *To-day and To-morrow* (like Haldane's *Daedalus*) may have reached more readers and even potential eugenic disciples, *Eugenics* presented a much more coherent and carefully curated exposition of the eugenics paradigm and the applied science and dogma that under-girded it. And with its explicit and sustained educational mission, backed by expert AES committees for both popular and formal education, *Eugenics* also serves as a curriculum guide and serialized catechism for the interested layman. It also acts as a mission statement and bible for the committed 'eugenic disciples' (see Dr. Florence Sherbon's exposition of these eugenic vocations and ongoing attempts at curriculum and instruction in the Popular Education section of this Chapter).

To my knowledge, this is the first in-depth study of the AES journal and its departments. By including scans of title pages, text, pictures and other elements, the reader should obtain a solid overview of what is a fairly obscure primary source. My analysis and memetic interpretation of the regular departments, feature articles and other journal content will provide curated context for the source material and highlight interconnections between the organizational and educational goals and the principals who oversaw and administered the American eugenics movement.

The next section will outline the organized groups that guided and managed the movement in the Interwar years, as well as introducing the general format and regular departments of the journal, using the "Birthday Number" as the template. Subsequent sections will then focus on the thematic departments for popular, formal and professional education, illustrating the dual roles or functions of a conventional academic journal for the committed base and a popular magazine for interested laymen. The last section will detail the End of *Eugenics* and the lone issue of *People* magazine. Additional sections covering the journal (identified on previous page) are included in Appendix IV.

The Genesis and Pantheon of American Eugenics Organizations

At the height of the Progressive-era in America, a number of eugenics organizations were formed from the cadre of the ‘Eugenics Section’ of the *American Breeders Association*, formed in 1905 and renamed as the *American Genetics Association* in 1913 (Engs, 2005, p. 5). Although it was only one section of the larger association, eugenics soon carved-out a prominent niche. Eugenics was also copiously featured in *The Journal of Heredity*, under the very active editorship of Dr. Paul Popenoe from 1910-1918. Next in line was the *Eugenics Research Association* (1913-1938), directed by Dr. Charles B. Davenport of the *Eugenics Record Office* (ERO), located at Cold Spring Harbor on Long Island (Laughlin, 1929). It consisted of eugenic field workers at the ERO, as well as academics and graduate student researchers; eventually reaching some 300 members in 1928 (Engs, 2005, p. 69).

But the most prestigious and exclusive eugenics organization was the *Galton Society of America* (1918-1939). Like the *National Academy of Sciences* (NAS), it featured a *very* rigorous review process for election of members.⁷² Only the cream of ‘old-stock Americans’ were admitted. The Galton Society was “dedicated to the promotion of the study of racial anthropology, and the origin, migration, physical and mental characteristics, crossing and evolution of human races” (Engs, 2005, p. 85). The Galton Society was formed on April 2, 1918, largely as a reaction to the increasing influence of the ‘Boasians’ (led by Franz Boas of Columbia University) in American anthropology circles, who followed a eugenics-oriented agenda (Spiro, 2009). Several of Boas’s most prominent students were Jewish immigrants. The Bolshevik Revolutions in Russia and Eastern Europe (e.g., the short-lived regime of Béla Kun in Hungary) unleashed the first ‘Red Scare’ in America (Missner, 1985) and evoked rampant fears of Jewish-Bolshevism, from reactionary forces on the political right.

The Galton Society was founded by the “triumvirate of great leaders” (Spiro 2009, p. 304) of the American eugenics movement: Charles B. Davenport (its first president), and the dynamic duo of Madison Grant and Henry Fairfield Osborn, who were the real driving forces behind the Society:

Grant explained that the Galton Society would be aristocratic in structure and governed by a self-elected and self-perpetuating oligarchy of nine charter fellows who would solely elect the officers, and approve the regular members, limited to sixteen... Grant was adamant that membership in the Galton Society – as opposed to the American Anthropological Association – would be “confined to native-Americans⁷³, who are anthropologically, socially, and politically sound...no Bolsheviki need apply” (Spiro, 2009, p. 305).

⁷² If members or candidates for prospective membership were engaged but not married, they had to submit positive evidence of their future’s spouse’s pedigree and racial fitness before the marriage could be countenanced (Spiro, 2009). Prospective members of the *National Academy of Sciences* never had to deal with that degree of selection.

⁷³ ‘native-Americans’ (as opposed to today’s ‘Native Americans’) referred to descendants of the original Anglo-Saxon Protestant (WASP, *aka* Nordics) colonists, who could trace their ancestry in America back to colonial times.

Other Galton Society charter members included staunch Nordacist activist and author Lothrop Stoddard, Princeton biologist Edward G. Conklin, paleontologists William K. Gregory (of the *American Museum of Natural History* alongside its long-time president H. F. Osborn) and John C. Merriam (later director of the Rockefeller Foundation that funded eugenics so generously). They were joined by noted psychologists Edward L. Thorndike (Columbia) and Robert M. Yerkes (Princeton), fresh from their U.S. Army Mental Testing Program experience, which provided reams of politically useful data on the racial basis of intelligence and aptitude, from over 1.7 million servicemen in WW I (Brigham, 1923). The membership was rounded out with the elite of the American eugenics movement, including E. A. Hooton (Harvard), Harry L. Laughlin (Davenport's paladin at the *ERO*), C. C. Little (president of the University of Michigan), Raymond Pearl, Paul Popenoe, and Frederick A. Woods. The Society had a huge influence over science during the progressive-era, even beyond the narrow confines of eugenics:

A third of the Galtonians were members of the National Academy of Sciences, half were members of the American Philosophical Society, and more than half were members of the American Association for the Advancement of Science (three served as its president). In other words, influential men with important connections...in charge of the nation's science establishment in the 1920s, it was upon their fellow hereditarians in the Galton Society that they bestowed government positions and federal grants. (Spiro, 2009, p. 306)

The Galton Society's Program and Activities

The Galton Society gathered for meetings at Henry F. Osborn's American Museum of Natural History⁷⁴ in New York, or at Madison Grant's spacious Manhattan apartment. They promoted segregation and sterilization programs for the unfit and 'inferior races,' strict immigration restriction by race and biological-mental fitness, anti-miscegenation (anti-race-mixing) laws, and devoted themselves to these and other problems of heredity and race (Engs, 2005, p. 85). The Society also sponsored the popular 'Fitter Family Contests' and provided the bronze medals awarded as prizes to the 'fittest' Anglo-Saxon Protestant native-Americans, proclaiming "Yea, I Have a Goodly Heritage." This image and a facsimile of Galton's portrait was also used in the masthead of the *AES* monthly journal and popular magazine: *Eugenics: A Journal of Race Betterment*. The medallion image was also featured prominently on the front cover of each issue (See title page and next section of this chapter).

⁷⁴ Fans of the *Night at the Museum* movie franchise will be familiar with this institution, and the portrayal of President Theodore Roosevelt (a proud supporter of eugenics and the concept of Nordic superiority) by the late Robin Williams.

The Galton Society also provided the cadre for the top leadership positions of other eugenics organizations; both those mentioned above and the more popular *American Eugenics Society (AES)* that formed in 1926, following a number of interim organizations dating back to 1921 (Laughlin, 1929). In this sense, the *AES* mirrored the *American Association for the Advancement of Science (AAAS)*, which is open to anyone who wishes to join and pay dues. The Galtonians simply rotated nominal leadership roles in all these subsidiary organizations from one year to the next, as president, secretary-treasurer, and as officers, directors and chairs of the other eugenics organizations. In this way, the Galton Society formed an “interlocking directorate of American Eugenics” (Spiro, 2009, p. 229, 395, 396).⁷⁵ that controlled the agendas and programs of these groups in the same way that Grant, Osborn, Teddy Roosevelt, *et al*, had done for threatened American wildlife and wilderness preserves in the Conservation Movement of the pre-World War I period. Thus, in the case of the American eugenics movement, a small number of elite ‘meme-fountains’ (Blackmore, 1999) could exert a powerful influence on public policy. This popular propaganda dissemination was also aided by piggy-backing the eugenic memes for the preservation of Nordic civilization in America onto established memes for the conservation of American wildlife and wilderness areas by policy and legislation, and by extensive public education efforts to secure the support of a critical mass of voters and community leaders.

Introduction to *Eugenics: A Journal of Race Betterment (EJoRB)*

The *American Eugenics Society (AES)*, incorporated in 1926 and headquartered in New Haven, Connecticut, began intensive operations to expand its reach into the consciousness of mainstream America (Laughlin, 1929). It had been co-publishing a small monthly newsletter, *The Eugenic News*, since 1916, as the official organ of the *Eugenics Research Association (ERA)* and *The Galton Society of America*, with assistance and funding from the *Eugenics Record Office (ERO)* at Cold Spring Harbor (Engs, 2005, p. 56). It featured news and short research articles for the academics and professionals that formed the core of the early American eugenics movement. *The Eugenic News* continued being published long after *Eugenics* ceased its operations, eventually being transferred to the reformed AES when the ERO was shut-down in 1938.

⁷⁵ Appendix D (p. 395, 396) of Spiro (2009) lists the members of this ‘directorate’ and this list can be checked against the listings of influential men in the Conservation movement and Immigration Restriction movement. There is a remarkable overlap of these lists, with Madison Grant, Henry F. Osborn and the other Galtonians being central to all.

The leadership of the AES and ERA looked at numerous foreign publications, like *The Eugenics Review* from Britain, as well as commercial American magazines, like *Life* and *Time*. The idea of the new journal-magazine was to combine the popular appeal of a commercial magazine for the layman, with the specialized aspects of a professional journal to fulfill the old core mission of disseminating eugenical news, research and promoting the various eugenics organizations. A more complete genesis of the *EJoRB* can be found in the editorial column of the debut issue, later in this chapter.

The new periodical featured a cover with a brightly coloured motif reminiscent of classical Greek columns to form a respectable edifice (See the sample cover from March 1929, in Figure 4-1a on page 2 of the separate image file for Chapter IV). A colour-matched facsimile of the Galton Society medallion awarded to 'Fitter Families' at State Fairs and similar exhibitions was featured prominently front and center inside this edifice, along with a brief listing of the feature articles and that month's topic for the popular *Eugenics*' Symposium. Some of the more exotic colours used were dropped after 'Black Tuesday,' so that from late 1929 the colouring on the cover was limited to one of four basic colours to save money on printing. The coloured covers, the high-quality semi-gloss paper and the profusion of photographs inside, made the new periodical very attractive compared to its humble roots as a basic newsletter, and even relative to many other contemporary professional journals. When compared to the staid British *Eugenics Review*, *EJoRB* was high-fructose eye-candy.

The inside front cover featured a list of the executive members, board of directors, and the advisory council of the AES. While the executive changed yearly, the directors and advisory council remained fairly static, with a few members being added to the latter each year. Madison Grant had already used the clever tactic of spending money on high-quality letterhead paper, with an extensive list of academics, allied politicians and other power-brokers, to bolster the authority and gravitas of his prolific correspondence for political lobbying and fundraising in the conservation movement (Sprio, 2009). The inside cover served the same function for the magazine, lending an unmistakable air of authority to the publication. See the sample listing for 1931 in Figure 4-1b on page 3 of the image file. Many article contributors, department editors and participants in the monthly symposium appeared on this list of eugenics notables and Society icons. Next came the journal masthead, contents page and editorial-legal fine-print at the bottom of page one. See Figure 4-1c on page 3 of the image file for the masthead and publishing details, from the April 1930 issue of *Eugenics*. There is no reason to think that period readers of the magazine, even those new to the movement, would not be suitably impressed by this ostentatious display of authority; and by extension, give *Eugenics* the benefit of any doubt about the scientific validity of eugenics. This artificial veneer of respectability is still a valid means of by-passing the meme filters of unconfirmed sceptics.

“The Birthday Number” of *Eugenics*

The premiere issue of *Eugenics*, debuting in October 1928 at the apex of the ‘Roaring Twenties,’ was referred to as “the Birthday Number” (See table of contents for the debut issue in Figure 4-2a on page 5 of the image file for Chapter IV). In addition to introducing and promoting the magazine, and pioneering the regular departments, the debut issue contained a sampling of feature stories covering the gamut of eugenical issues that would become fixtures during the whole publication run. A quick scan of the table of contents reveals the importance that the *AES* placed upon eugenics education (formal, popular and professional); a closer examination makes this even more apparent. From the frontispiece showing college students going back to classes, to the back cover promoting the EUGENICS’ Book Club and its offerings at discounted prices to *AES* members (see Figure 4-2b on page 6 of the image file), *Eugenics* was dedicated to educating and promoting the cause of eugenics to an ever larger body-politic, as well as preaching “all phases of eugenics” to members of the choir (see dedication ‘boilerplate’ in bottom section of Figure 4-1c on page 4 of the image file).

This commitment to the evangelization of a critical mass of eugenic disciples was a staple theme that ran through many of the introductory articles, and was repeated through all issues of *Eugenics* until the sudden end of publication in 1931, as the Great Depression shut the doors of the Galton Publishing Company, and forced the *AES* into a dormant stage until somewhat improved economic conditions allowed a modest reflowering after World War II. For 30 issues of *Eugenics*, the constituent memes of American eugenics were disseminated in a variety of formats, repeated by a host of meme-vehicles, and expanded or cultivated in a variety of contexts and settings. For any subscriber who read all 1200 pages of *Eugenics*, they would have received a thorough foundation to all the critical memes of eugenics, guided by experts to fit these component memes together into a coherent memplex or paradigm, and relating how they fit into the dominant WASP worldview that had already ‘Made America Great.’

But now rampant immigration of non-Nordics (and increasingly non-Christians from Russia and Eastern Europe) was seen to jeopardize that status as a Great Power, and even threatened racial decline or suicide of the ‘old-stock’ Nordics, swamped by successive waves of racial-religious inferiors that parasitically drew on the community chest and refused to quickly assimilate in the great American Melting Pot (see the Immigration and Legislation section later in this chapter for much more on this perceived existential threat and the desperate countermeasures devised to fight it).

Some of this fear and loathing of non-Nordic *Others* will be introduced in this section, right after a discussion of the educational lead article, pointing to a scientific merger of eugenics and pedagogy.

The Symbiosis of Eugenics and Education

A proposed merger of education with eugenics was formally moved in the brief opening feature article, “The Relation of Eugenics to Education” (Little, 1928, pp. 3-5). The author, C. C. Little, was then President of the *AES* President and University of Michigan. He was a charter member of the *Galton Society* and an active leader in other previous American eugenics’ organizations, including the *Eugenics Research Association*. In this premiere article, Little hails the scientific coming-of-age of both eugenics and education, and their great potential for a synergistic growth, and directed evolution of a mutualistic relationship in the human-ecology of the American Century. He makes the logical progression from inter-personal relationships, through combinations and connections between the physical sciences that created such rapid material progress in America during the 19th Century, to the new human sciences of eugenics and education. Like a ‘saltation’ in biological evolution, the recent academic accretion of eugenics and pedagogy into the American university and teacher-education systems, offered opportunities for a rational reorganization of chaotic social-systems onto a firm scientific-technological basis through the intellectual and professional union of these two burgeoning human sciences; providing harmony by combining separate disciplines into a united whole. A call-out box (see Figure 4-3 on page 7 of the image file for Chapter IV) from the first page of the article hails their combined potential.

Little freely admits the current limitations of these two new burgeoning sciences, dealing as they do with the tremendous complexities of human material and environmental interactions, rather than purely physical entities with consistent properties and reactions to change, therefore requiring humility and a tentative approach. But he offers the promise of an unprecedented payoff in progress to those sufficiently bold to take their own evolution in hand and persist through the challenges and difficulties presented over the course of many decades. Little hails the plentiful stock of human material for racial improvement, and the recent arrival of new “machinery which brings this material together for study, comparison, and observation” (p. 4), as developed for the U.S. Army during World War I by eugenically-informed educational psychologists, and empirical experts (Brigham, 1923; Gould, 1981).

With the spread of these scientific tools and technical machinery to schools, colleges, hospitals and other civilian institutions, education stands at a cross-road. Little cautions that progress will not result “if the supply of [human] material is out of control and the machinery is locked up by

narrowness or religious dogma so that it may not be dispassionately and scientifically studied” (p. 4). But, if we are sufficiently adventurous and committed to scientific exploration for racial betterment (rather than merely individual improvement), we can expect great results, as indicated by preliminary experiments and observations. These new techniques offered to transform education from a poorly understood art, preoccupied with cyclic organizational or environmental improvements of temporary benefit; into a professional science, based on rapidly advancing biological-hereditary paradigms that offered “definite and predictable” cumulative improvements, operating over successive generations:

Education has long felt the want of an adequate body of scientific data to provide for it the foundation necessary to any properly established profession... [but] recently, by the work of psychologists, medical investigators, and biologists the outline of a broad scientific foundation for the process of education has been developed. Physical and mental differences, abilities and disabilities have been shown in many striking cases to rest on a biological, medical basis. The great increase in our knowledge of heredity has shown that many of such variations persist from generation to generation and follow definite and highly predictable courses. (p. 4)

Little then offers a “New Conception” (p. 4) for the progeny of a unified eugenical-education system, by combining the empirical, hereditarian, inter-generational expertise of eugenics with the strong environmental-social, intra-generational traditions of formal education and pedagogy. He alludes to the early successes of educational psychology, like Child Study, and notes how “the more progressive of our schools and colleges” (p. 4) have already incorporated these ideas and techniques. The melding of these two heretofore separate disciplines offers the opportunity for eugenical-educators to explore new human frontiers, “to break the enslavement of a civilization steeped in material comfort,” and instead provide a strong racial orientation to our preferred future, “with a due sense of the relative unimportance of the human individual, themselves included” (p. 5).

The article concludes with a fervent plea for eugenics experts and eugenically-minded educators to work enthusiastically and symbiotically, presaging a ‘Great Leap Forward’ of humanity and also setting the stage for an American ‘Cultural Revolution’ in the subsequent educationally-themed article, “The Next Revolution,” by Dr. Ellsworth Huntington (Yale geography professor, prolific author, and future president of the *AES* in the lean Depression years).⁷⁶ Huntington became a

⁷⁶ For a picture and further story about Dr. Little and his ongoing involvement in eugenics and the scientific establishment, see the article on ‘Mongolian Imbecility’ in the final section of Appendix IV, along with Dr. Madge Thurlow Macklin (a professor at the University of Western Ontario), a Canadian pioneer in the eugenics movement and a dedicated popular educator for eugenics in her region.

regular contributor to *Eugenics* and the lone issue of *People*, while his older brother Henry (a Protestant Minister) later became chair of the AES Committee for Cooperation with the Clergy.

“The Next Revolution” in Human Evolution and Progress

This feature article by AES insider Ellsworth Huntington (1928) is an example of the emerging social-science sub-disciplines of human geography and bio-demographics, an offshoot of geography and amalgamation with ethnography and biometrics. Today’s social scientists would understand the article as an early exposition of the ‘demographic transition’ common to almost any modern, industrial nation. This transition entailed a dramatic drop in the mortality rate, especially for newborns and infants, followed by a slow but steady drop in the birth-rate, first among the wealthy and professionals and then among the middle-classes. This differentiated linkage between natality and mortality rates across a population led to the oft-cited ‘differential birth rate’ that concerned so many eugenicists and population experts. With the provision of free birth-control clinics and other elements of the modern Welfare State, this transition eventually trickled-down to the working-class and poor, although much more slowly. This topic was also a recurring theme covered from different perspectives in several of the *To-day and To-morrow* titles (examples included *Tantalus*, *Lysistrata*, *Birth Control and the State*, *Hymen*).

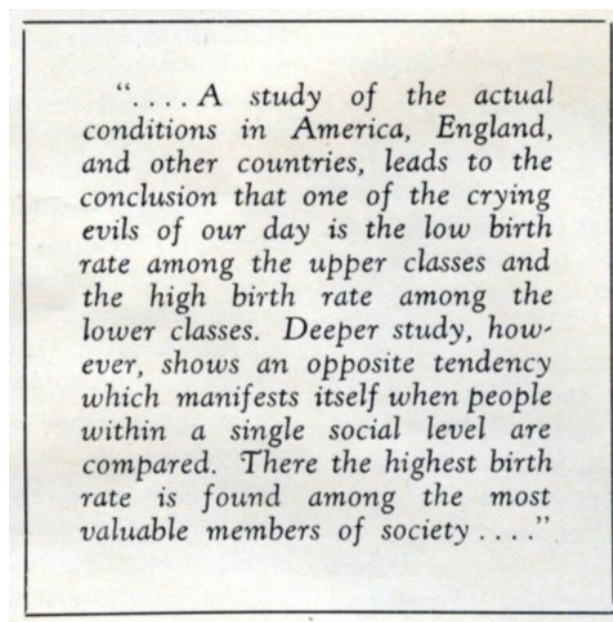
In the absence of high-levels of immigration, and exacerbated by significant emigration, many European nations, like France, Britain, and Germany had already advanced further than America in this direction. In France, this situation had progressed to the point where the population was no longer replenishing itself. Combined with the great loss of men in World War I, this demographic crisis almost extinguished the negative thrust of the French eugenics movement, prompting numerous British and American eugenic commentators to remark that France had given up the quest for qualitatively improving the race, in favour of sheer quantity of numbers (Kevles, 1987). But in the absence of a predominately race-based eugenics movement, the Europeans had different explanations and proposed solutions to the crisis than their counterparts across the Atlantic. In America, despite the newly enacted immigration restrictions, the rapid influx of the non-Nordic ‘New Immigrants’ (from ~1860-1915), with their high birth-rates and aversion to (or lack of access to) contraception had resulted in a large differential birth-rate (Kraut, 1982) between the low-fertility old-stock WASPs and the high-fecundity non-Nordic newcomers. Because of the strong racial and

religious bias (especially for the Catholic Irish and Italians), this differential fecundity was of primary concern to American eugenicists of the Nordicist faction, who predicted the rapid decline or even the eventual extinction of ‘old-stock Americans’ in the process known as “race suicide” (Ross, 1901). It was this memetic combination of fecundity, race, educational and social policies and related urban demographic issues that was the subject of Dr. Huntington’s “The Next Revolution” (pp. 6-14).

Huntington begins by highlighting the great material progress in America since the Civil War, including all the modern marvels and ills of 20th Century urban life, epitomized by the rapidly rising skyline and material comforts of New York City: “skyscrapers, automobiles, telephones, movies, apartment houses, subways, department stores, ocean liners, radio outfits, murders, gangs... stock markets, and a bewildering variety of other mechanical appliances, [and] social organizations” that have transformed modern life in the city (p. 6).

He then asks the rhetorical question: “Can so great a revolution ever again occur?” Of course the answer is yes, but this time Huntington looks for a great biological revolution, due to the rational re-organization of society along eugenic lines, and the proliferation and assimilation of eugenic ideals and attitudes. Huntington uses statistical data to buttress his concerns, citing the prodigious drop in the birth-rate of British nobility, compared to the labourers and lower classes of teeming London. Huntington enlists the quantitative studies of British demographers, presenting alarming data for the drop in reproduction among the ‘fitter classes,’ while the ‘problem social groups’ remain unaffected. He blames this on differential access to birth control and the dysgenic effects of modern medical science and charities. Huntington does see some hope in this overall doom and gloom, as hinted at in this call-out box on the opening page (p. 6), as reproduced in Figure 4-4a below:

Figure 4-4a: A call-out box pointing-out the alarming differential fecundity among the upper classes, versus the labourers and unemployed poor of modern Western nations. But Professor Huntington sees a eugenic silver-lining when socio-economic class is controlled, so that the best elements of each class can be studied in isolation. (p. 6)



“... A study of the actual conditions in America, England, and other countries, leads to the conclusion that one of the crying evils of our day is the low birth rate among the upper classes and the high birth rate among the lower classes. Deeper study, however, shows an opposite tendency which manifests itself when people within a single social level are compared. There the highest birth rate is found among the most valuable members of society...”

After presenting numerous statistics showing the class-based trends in Britain, Huntington turns his gaze to America. He uses his quantitative study of the eugenically valuable offspring of those listed in *Who's Who in America* for 1926-27, as compiled for *The Builders of America* (1928), by himself and co-author Leon F. Whitney (as listed in the *Eugenics*' Book Club offerings shown in Figure 4-2b on page 6 of the image file) as ample evidence for the same trend in America, "in practically every group of leading people whether in professions or business people" (p. 8). While this decline of the best and brightest is alarming in and of itself, the dysgenic outcome of this demographic decimation is aggravated by the fact that "the birth rate among miners, farmers and ordinary unskilled labourers has declined only a trifle" (p. 8). In addition, the increased number of childless marriages among the old-stock Anglo-Saxons of the fitter-classes, meant Nordics had serious cause for concern about the future of WASP America after just a few more generations.

Huntington discounts the suggestion sometimes proposed by environmentalists (such as the Boasians) that the lower classes will rise to replace the declining aristocrats, professionals, and other leaders of American society. Again, using a previous study of the *Who's Who of America*, Huntington points out that a son or daughter of unskilled labourers only becomes a notable in one out of every 48,000 births, farmers contribute one in every 700, engineers one in 160, while physicians and Methodist Ministers (often hailed as the *crème* of the eugenic crop) produce one in every hundred:

In the face of all this, it is idle to repeat the common assertion that Lincoln's humble origin proves that the lower classes can be relied upon to produce plenty of leaders. They have never done so and there is not the slightest indication that they ever will. (p. 8)

To add insult to injury, Huntington cautions that those up-and-comers from the lower classes who beat the odds to rise to eminence, "fail to reproduce" to the same extent as those they left behind in the huddled masses or those old-stock Aristocrats they replace, and thus they "do not biologically reinforce the upper classes to any great extent" (p. 8). Other authors in the journal also proclaimed this drop in procreativity with increasing wealth and urbanization as a dysgenic trend. See Figure 4-4b on page 7 in the image file for Chapter IV for an illustration of this Janus-faced view of American urban civilization, highlighting the dichotomy of material progress with biological stagnation or even deterioration, much as F. C. S. Schiller had done in *Tantalus* (1924) from a class-based perspective.

Thus the social-ladder to upward mobility is actually “from the biological point of view... making a bad matter worse” (p. 8). Therefore, the euthenic solutions proposed by the Boasians and other neo-Lamarckian advocates of progress by social reforms are an illusion and evolutionary dead-end. Huntington backs-up these various assertions with more statistical data from his and Whitney’s *Builders of America*, and other studies by the academic, educational, professional and ecclesiastical leaders who formed the core of the eugenic caste of progressive-era America. Having outlined the problem and discounted the environmental solutions to the demographic threat, Huntington turns to the cure of the social disease, using eugenics to formulate a biological remedy, based on the hard data of modern science. Here, Huntington enlists the empirical data of a study of Yale graduates, showing that the most successful upperclassmen in academics, social clubs, and student leadership overwhelmingly come from large families of native Anglo-Saxon stock. He notes there “are many exceptions to all of this” but the conclusion is “perfectly clear: It is a decided advantage to belong to a large family” (p. 12).

This begs another critical question: “Is this advantage due to inheritance or training?” (p. 12). Huntington answers this crucial question, one that has deep educational implications, by drilling deeper into the Yale study data. He found that the most successful graduates of years gone by had large families, and their children are also much more likely to attend their father’s *Alma Mater* and be successful themselves. The children of non-college fathers, unless they were only children, represented a small minority, and were seldom among the top graduates in terms of senior votes for best and brightest. Huntington explains the Yale results in this way:

A study of *Who's Who* shows that the men in that book who do not have a college education limit their families more than do the others. Intelligent people of this type, no matter whether in *Who's Who* or outside of it, are likely to have intelligent children. On the other hand, among the parents who do not go to college the larger families are likely to be found among people of the so-called lower middle classes—carpenters, farmers and the like. Their children are less likely to inherit high intelligence than are the children of those who have risen to the so-called higher levels and therefore limited their families. (p. 12)

But while biological inheritance seems to be the deciding factor in academic success, Huntington did acknowledge the importance of family training; a kind of informal indoctrination to which the educational potential of eugenics could offer the promise of even greater, more systematic success. See Figure 4-4c on page 8 of the image file, for a summary of the combined effects of biological inheritance and social (memetic) conditioning among the eugenic elite. As important as the Yale study data is, the question remained as to the implications for the larger American

population, especially in the highly urbanized regions of the Atlantic seaboard that was the focus of most American eugenics. Huntington pointed first to the larger implications of his own study “that large families are especially desirable among the people of the finest types” (p. 13) and offered a vignette of just such a “Fitter Family” (featured in Figure 4-4d on page 8 of image file), as chosen by the AES in one of their popular educational outreach activities. These winners were usually old-stock WASP families of local distinction.

Huntington also offered the exemplar of the Swedish city of Stockholm as an urban repository of a relatively pure Nordic type, to illustrate the eugenic possibilities when racially homogenous, upper and lower classes both have access to birth-control. He praised the old-world architecture, uniform cleanliness and high state of civilization in Stockholm. He found the same demographic trend in the fitter groups: larger families among the professionals, executives, and other members of the upper classes who contribute greatly to the eugenic health and societal prosperity of the city. He even noted a positive effect of Bolshevik propaganda, in that “the labourers have been strongly influenced by communist propaganda in favour of birth control” (p. 13). Thus family size in Stockholm was closely adjusted to income and thus served as an exemplar of what can be done with proper social policy:

The general fact remains that in Stockholm quite unlike the United States, England, and most of the civilized parts of the world, the birth rate in general increases from the lower to the upper levels of society. It acts precisely as does the birth rate among the graduates of our finest colleges, and it conforms to what appears to be the ideal. (p. 14)

Huntington also gave high praise to Stockholm for its complete lack of real slums, and the consequent low crime rate, including an almost complete absence of murders. He even noted that many city dwellers own a small cabin on one of the many islands, or at one of the lakes around the city, where they escape during the summers, when dysgenic problems in cities like New York reached their peak. All this combined evidence offered a eugenic alternative to the dysgenic differential birth-rate and racial disharmony in urban America. The solution was to adjust the relative birth-rates and educate American society as to the proper eugenic balance between material prosperity and racial health. The mission of the AES was to work toward that preferred future.

Eugenical Institutions: The Eugenics Record Office at Cold Spring Harbor

One of the staple features of *Eugenics*, as debuted in the “Birthday Number,” was to profile various educational or private research institutions that worked towards eugenics education, research, or policy and regulation. Many subsequent installments covered America’s private universities and colleges that offered formal courses in eugenics and human genetic studies, or privately endowed research foundations associated with these schools. The first installment profiled the Eugenics Record Office (ERO), the first headquarters for organized eugenics in America (pp. 15-19). By then the ERO was primarily funded by the Carnegie Institution of Washington (CIW), as well as the Rockefeller Foundation. Although the article is unsigned, it appeared to be written by Dr. Harry H. Laughlin, superintendent of the ERO, a charter member of the Galton Society, and a recent past-president of the AES (1927-28) and the Eugenics Research Association (ERA).

After hailing the ERO as the “pioneering formal agency for eugenical investigation” (p. 15) in America, Laughlin summarized its formation and the creative vision of its founder, Dr. Charles B. Davenport. Laughlin highlighted, and later described its primary missions and general activities for eugenical research and education. These core missions included providing pedigree charts and standardized forms of numerous heritable traits to “family genealogists” (p. 15), from which the ERO built up a large database (1.25 million record forms at the time of writing). The ERO’s formal educational role in providing specialized training to eugenic field workers during the summer months is also profiled. Many of these field workers were college students, including many enthusiastic young ladies from Eastern women’s colleges. These novices could earn money for tuition and even college credits for their summer labour. They assisted academic researchers in conducting ‘family studies’ of either renowned old-stock American families, or the dysgenic clans (like the infamous *Kallikaks* of New Jersey) that made headlines for their immorality, criminal activities, and growing economic burden to society. Laughlin quoted the program for the ERO, as set-out in the CIW yearbook for the past year, as shown in Figure 4-5a on page 9 of the image file.

Laughlin further expanded upon a number of these mission statements, first the genealogical record forms and helpful pamphlets for constructing a family tree and trait charts, available to the public. Next, some of the past and ongoing research efforts were summarized, studying both eugenic prodigies, such as holders of significant American patents; and dysgenic oddities, such as Mongoloids (Down’s syndrome) and the isolated clans of the Kentucky Hills. One of the staple research endeavors of the ERO had been to document the dysgenic threats of the so-called ‘White Trash’ families, which expanded into a rogue’s gallery of ne’er-do-wells, paupers, and social burdens.

Next, Laughlin profiled the professional credentials and eugenic activities of the three principals at the ERO, beginning with director and founder Davenport, then himself, and finally Dr. Arthur H. Estabrook, who specialized in dysgenic family pedigree studies. See the pictures of the principals and the provided captions in Figure 4-5b on page 9 of the image file.

In the brief section on himself, Laughlin noted his scientific credentials (M.Sc. and Sc.D. degrees from Princeton), his previous career as an educator and administrator, and made special mention of his service as an expert on immigration and eugenics for the American Congress, the Department of Labour, and the Supreme Court in the case of *Buck v. Bell* (1926). He also outlined his positions with the *AES*, *ERA* and various international eugenics organizations, including the ill-fated League of Nations. Curiously, there was no mention of the elite Galton Society. This might have been an editorial decision, as mention of this elite organization was avoided throughout the journal's run, despite its great influence over organized American eugenics, even in Laughlin's feature article "The Progress of American Eugenics" in the February 1929 issue (pp. 3-16).

The *Eugenics* Symposium

Next to debut was the first installment of one of the most interesting regular features: the popular *Eugenics* Symposium that featured various experts or notables commenting on a eugenic issue of interest. It was usually found in the centerfold of each issue, so that it was easy to find and capture the attention of casual readers, perhaps leading to a reading of more substantial articles, new subscriptions or greater involvement in the movement. This feature consisted of a boldly worded, controversial question, with short responses from four or more panelists, who were typically prominent academics, authors, clergymen, politicians, or other leaders. See Figure 4-6 on page 10 of the image file for the heading and top section of the debut iteration of the *Eugenics* Symposium.

In an attempt to generate controversy and discussion, later installments would sometimes feature prominent critics of eugenics, such as Catholic priests, Jewish rabbis, or professors from Catholic universities. While polite and brief, an astute reader can sense the obvious tension in these discussions, particularly when dealing with issues like inherent racial superiority or the hereditarian-environmental divide. When possible, the magazine would sometimes enlist visiting eugenicists from Britain or Continental Europe to serve on the panel, if they happened to be on a tour of America, or at an international conference in New York, for instance. In return, the *AES* would publicize their visit, and even advertise and organize public lectures or other appearances that readers could attend. The Symposium was also a convenient way of publicizing the current executive of the *AES*, or the

editors of the other regular features, if the question at hand dealt with their area of expertise. The Symposium question often mirrored the special topic of that issue, such as asking the two main candidates for vice-president for their opinions on nature vs. nurture in the November 1928 issue, right before that year's presidential election (won by Republican candidate Herbert Hoover, who received a cautious endorsement from the journal). See the dedicated section on the *Eugenics'* Symposium in Appendix IV for more examples of this fascinating regular department.

Hunting for Society's Danger Spot

Following the popular centerfold Symposium, a typical issue would include one or two feature articles dealing with some aspect of eugenical research. These were often papers that were read at the previous annual meeting of the *ERA*, or another domestic or international eugenics' conference. In the debut issue, this honour fell to *AES* Executive Secretary Leon F. Whitney (1894-1973), one of the few paid permanent staff of the Society and the journal. His feature research article dealt with the primary source of feeble-minded for future generations, as discovered and studied in the 'schools for subnormals' in New York City. Echoing Henry Goddard's oft-repeated warning about the dysgenic danger of the borderline intelligence or 'moron-class' that he invented (Goddard, 1919), Whitney pronounced this group "Society's Danger Spot" (pp. 25-30), in a cautionary tale that mixed racial xenophobia and social-caste bias. It was buttressed by IQ test data and copious vital statistics, such as relative rates of fecundity among undesirable immigrant groups versus old-stock natives. See the attention-grabbing callout-box from the first page of the article, in Figure 4-7a below:

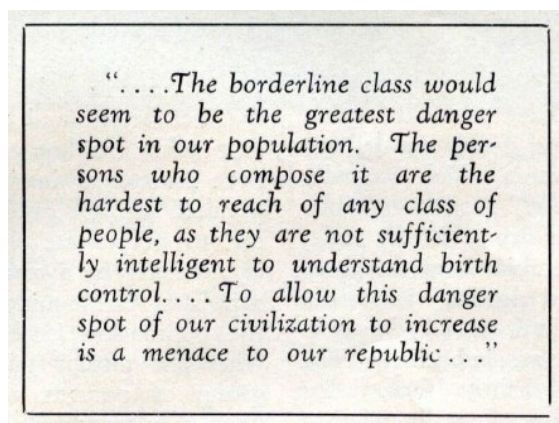


Figure 4-7a: An alarming call-out box on the first page of Leon Whitney's feature research article. It declares the borderline or moron-class as the greatest danger spot for breeding the unfit of the future, as exemplified by working-class immigrant children in New York's "schools for subnormals" (p. 25). This agreed with Henry Goddard's pronouncement in *The Kallikak Family* (1912), due to the fact that these borderline cases could often "pass for normal" to the non-expert, without an IQ test.

Whitney contrasted the rapid, urgent response to the danger posed by small-pox or recent deadly influenza outbreaks, with the underwhelming response of society to the serious danger posed by the borderline feeble-minded. He searched for the main source of this chronic menace to the prosperity and progress of future generations. He discounts the danger posed by the segregated outcasts from American society housed in special institutions, like Goddard's facility in New Jersey.

Whitney admitted the genetic cause of feeble-mindedness was more complex than previously believed, pointing to recent research published in *The Journal of Heredity*. He discussed opinions among current evolutionary biologists and eugenicists regarding the number and long-term persistence of genetic factors causing the condition and its increased incidence in industrial societies, primarily due to the dysgenic action of "misdirected charity" (p. 26) in modern states; thus preserving those individuals and family groups that would otherwise suffer extinction in a more primitive state of civilization. He introduced the various grades or classes of feeble-mindedness, using Goddard's earlier research and writings as authority, and discussed the relative danger posed by each to the future of the race. He also disputed the common assertion among environmentalists and many teachers as to whether "normal parents" (p. 28) can realistically give birth to subnormal children in any significant numbers. He points to his own research and to interview evidence from front-line school staff to counter this pernicious folk-tale:

The first and obvious conclusion that one reaches after interviewing the teachers and officers who have observed the parents of the subnormal children is that the parents are of about the same level of intelligence as their children... Without doubt one must conclude that the children in the schools for subnormals, in general, do not come from normal parents. Almost all of them come from feeble-minded parents. (p. 28)

Furthermore, Whitney asserted that it was commonly discovered upon closer investigation that one or more siblings of these borderline children are housed in special institutions or kept at home as "family skeletons" (p. 28). As important as this realization is, he cautiously pointed out that "we have not yet located the danger spot until we can show that this group of borderline persons have families considerably larger than is necessary to barely perpetuate themselves" (p. 28).

Whitney then turned to the voluminous demographic data that he collected for his study. He examined thousands of student record cards kept by the school jurisdiction, and supplemented this data with interviews of the students involved, as well as their parents, teachers, truant officers and social workers in the boroughs where these schools were located. Some one hundred and fifty families were interviewed, and Whitney revealed that the vast majority (121) were Italian. He found the average number of children per completed family was 7.09, and after he factored-in childless

couples into the population, arrived at an average family size just below 6. This raw data led to a startling conclusion: “Considering the early age at marriage, and the high marriage rate, it is likely, therefore, that this particular group is doubling every generation. At the end of a century therefore, the three hundred persons who compose this group will number over four thousand” (p. 28).

Whitney warned about this borderline group, proclaiming “it is not likely that they will cut down on the size of their families to any such degree as do the intelligent type of persons” (p. 28). He introduced tables of demographic data, showing the relative abundance of children from a dozen nationalities in the normal public school system, compared to the ethnicities of those children in the schools for ‘subnormals’ (Table II), and emphasized the dysgenic consequences of the previously unrestricted immigration from those parts of non-Nordic Europe that were now disproportionately represented in the defective children in the public school system. Whitney made special mention of the Catholic Irish, whose numbers in the public system were greatly bolstered by those in the parochial system, thus amplifying the specific threat represented by the ‘Papists.’ Figure 4-7b below shows two tables illustrating the alarming results of Whitney’s research into the danger spot:

TABLE II.			
Nationality	No. of families	Nationality	No. of families
Italian	850	Swedish	14
American	182	Austrian	6
Russian and Jew	112	Canadian	6
Negro	90	Ukrainian	6
Irish	56	French	4
Lithuanian	25	Portuguese	4
German	16	All others	27
Polish	73		
English	14		1485

TABLE IV												
No. of Children per family	1	2	3	4	5	6	7	8	9	10	11	12 or more
No. of families	3	8	11	17	21	17	18	22	20	4	4	6

Notice that there are only three families with but one child.

Figure 4-7b: Alarming statistics showing the disproportionate number of non-Nordic families in the sample of ‘subnormal’ children in his study. American refers to native-born. Whitney did not clarify how many generations back this goes, but he suspected many ‘Americans’ in the subnormal group are naturalized non-Nordics of recent vintage, rather than true ‘old-stock’ natives. (p. 29)

Thus, children of recent immigrants were disproportionately represented in the population of children in these ‘schools for subnormals,’ and their high racial fecundity threatened to accelerate the problem in a positive feedback-loop of dysgenic degeneration. He noted that many of the families tended to send the whole family, “one child after another” (p. 29) to the schools for subnormals, portending clusters of feeble-mindedness that could grow and spread in time, like a viral epidemic.

Whitney admitted that the “plain feeble-minded person is not the one who is making much trouble in the community,” noting that “many of the children interviewed had such good dispositions that they were well-liked by their teachers” (p. 29). He speculated further as to the root cause of the problem:

Apparently the trouble makers are those with defective temperaments, rather than defective intelligence. There were those with defective emotions also at the schools, and these, defective both intellectually and emotionally were the bane of the teachers’ existence. (p. 30)

Whitney concluded that the ability to accumulate money in this group of borderline defectives was “not necessarily associated with high intelligence” (p. 30). Several owned small retail businesses in produce markets, or were small-holding farmers that grew produce, or they were landlords or agents for landlords that catered to the same ethnic groups. Having formed ethnic niches in the neighborhood, they could survive, and “yet contribute very little to the common weal” (p. 30). But he insisted that however imprecise this conclusion is: “One thing is certain: many of them were not handicapped by a profusion of bright ideas which intrigued them and tempted them to spend money in ways which most intelligent people understand” (p. 30). See Figure 4-7c on page 11 of the image file for a pictorial of the dysgenic danger posed by one borderline group of students.

The borderline class also created difficulties for authorities, since “the persons who compose it are the hardest to reach of any class of people, as they are not sufficiently intelligent to understand birth control, and yet as they seldom come to the attention of the authorities, they will be difficult to reach to sterilize even when sterilization does have full public sanction” (p. 30). Whitney dismissed the oft-asserted opinion that “we need many of these kinds of persons to do the dirty work of the world” (p. 30) as being undignified and dooming human beings to the category of beasts of burden. And with continued progress, and more “modern complicated machinery we need better intellects to operate it. All things considered, to allow this danger spot of our civilization to increase is a menace to our republic, or to any nation of the world” (p. 30). In a recapitulation of the Army study of intelligence during World War I, conducted by patriotic American eugenicists and published in Brigham (1923), Whitney summarized the conclusions of his research study, and their implications for public policy, including popular education, as excerpted in Figure 4-7d on page 11 of the image file for Chapter IV. The primary memes expressed in Whitney’s alarmist tale are displayed in the partial meme-map as Figure 4-7e on the following page (p. 195).

Whitney remained a key contributor of both feature articles and editorial pieces to *Eugenics* (and book offerings for the *Eugenics*’ Book Club), as well as serving on important committees of the *AES* and *ERA*, and administering the day-to-day operations of the *AES* office in New Haven. He also

travelled widely as a lecturer and official at popular eugenical events and exhibits. Figure 4-7f on page 12 of the image file shows Whitney as a judge of the ‘Fitter Family’ competition at the Michigan State Fair in 1926, sponsored by the *AES*. Later sections of this chapter will feature more of Whitney’s writing and efforts. In many ways, Whitney was the Interwar counterpart of Dr. Paul Popenoe, as a frequent contributor and editor of *The Journal of Heredity* from 1910-1918, although Whitney never cracked the top-tier of the *AES*, or admission into the elite Galton Society. After World War II, he became a veterinarian and an author of many books on the proper care of various pets, specializing in dog breeding and training, and dog psychology.

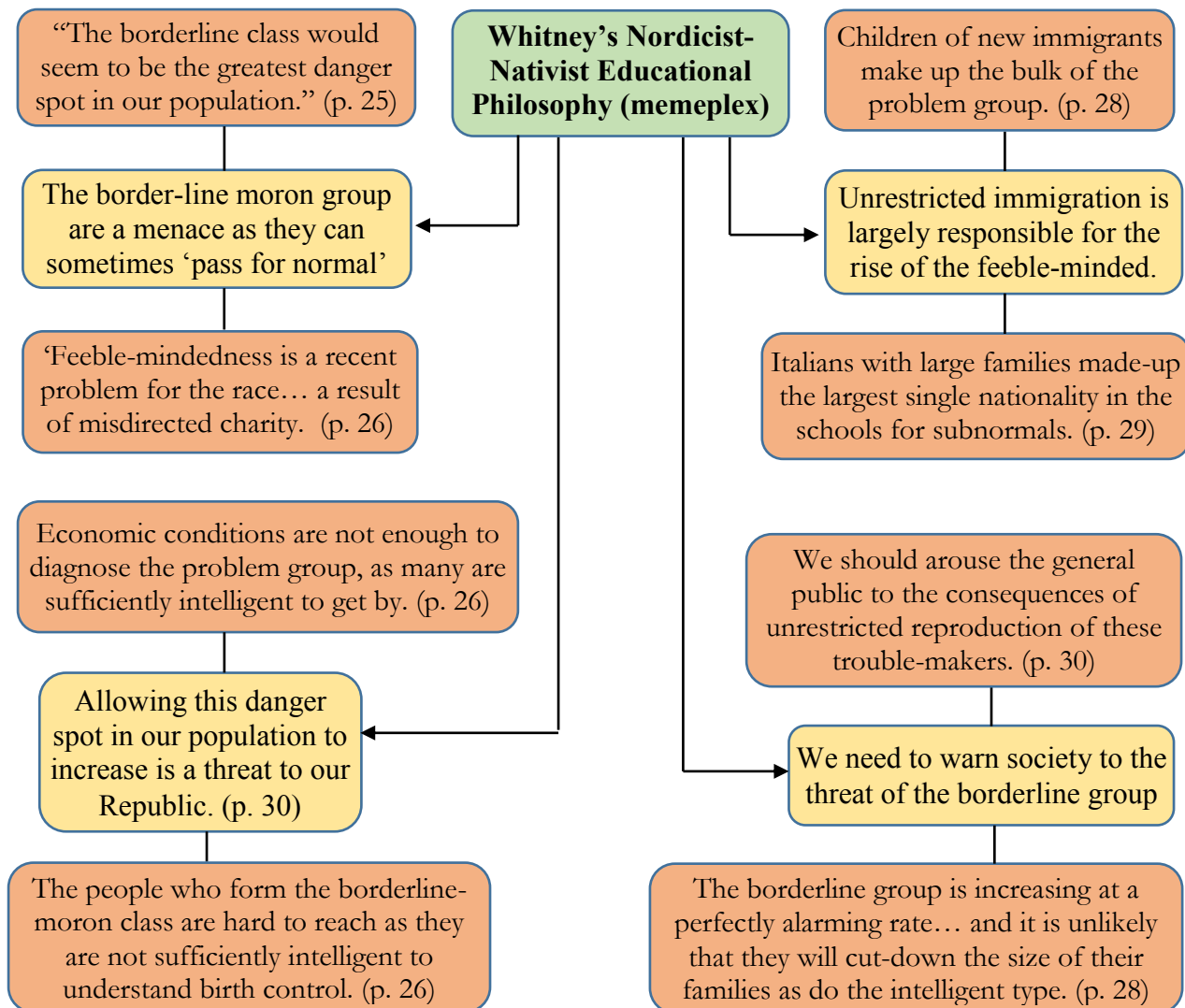


Figure 4-7e: A partial meme-map of the Nordacist-Nativist memes and racial themes expressed in Leon Whitney’s article on the menace of the feeble-minded in America’s public school system.

The Birthday Number Editorial

An editorial page was a regular feature in *Eugenics*, not at the beginning of each issue, but usually after the various feature articles and before the other regular departments. In keeping with the birthday theme, there is an allusion to the traditional ceremonies that welcome any new addition to a human family. Unlike the ‘Eugenical Babies’ disparaged in the Symposium feature, we were assured this new arrival was not only planned, but the product of a great deal of preliminary investigation, coordinated effort and organization. A detailed survey was sent out to hundreds of eugenics supporters across the country, and one hundred and ten responses were analyzed and fretted-over.

The AES studied other eugenic publications (the British Eugenics’ Society’s journal *The Eugenics Review* being the main contemporary exemplar), as well as other popular periodicals. But unlike the highly academic, statistically intense *Eugenics Review*, the AES’s *Eugenics* was conceived from the outset as a popular forum for the respectable middle-class and professional caste who influenced society and public policy, rather than only the academic elite. The new arrival was heralded with much fanfare; replete with metaphorical references to heredity versus environment and best wishes for healthy growth into maturity, as shown in Figure 4-8a below:

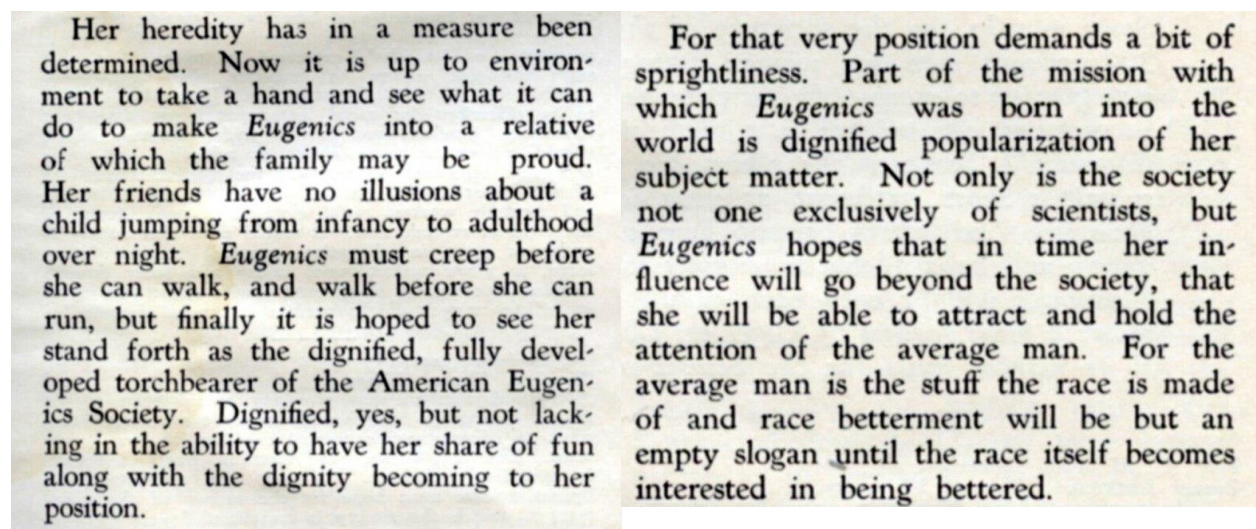


Figure 4-8a: An excerpt from the Editorial of the new-born issue of *Eugenics*, praising the pedigree, aims and aspirations of the infant magazine as the newest member of the AES family. (p. 31)

Although there was a commitment to popularization, there was also an explicit commitment to avoid “sensationalism” and a pledge that “*Eugenics* will make no concession to vulgarity” (p 31). So when the sensitive topic of birth control was broached elsewhere, there was no explicit mention of methods, no diagrams of genitals, or any loose-talk of sexual habits or activities. It was treated with

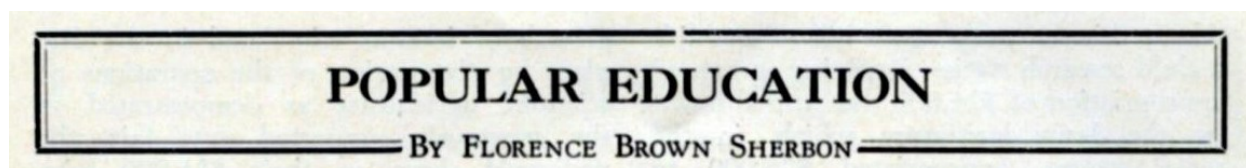
dignified prudence, though even this demure coverage upset some sensitive readers who thought it too much for a magazine that might be read by the fairer sex or the highly religious. The place of the layman is clarified, in that although intended partly as a popular magazine, “the average man must be attracted, true, but always as a follower: science supplies the leadership” (p. 31). Finally, just as a newborn must be adequately nourished, there was an appeal for eugenically-minded authors to submit articles and research reports, and even offer healthy criticism to correct any errors.

What Readers Write

Following the editorial page, a full page was devoted to feedback from influential American academics, scientists and clerics, as well as ordinary readers. In the Birthday Number this was replaced by additional survey responses from the top leaders and core membership of the AES that were not published in a previous AES pamphlet: *What I Think about Eugenics* (1926). Some of these snippets were short enough to be considered single memes, while others were small meme clusters or even budding memplexes that required decoding to unpack all the component memes. Figure 4-8b on page 12 of the image file shows a couple of these exemplars, both in the small meme-cluster category, but part of larger memplexes. These short endorsements of eugenics by noted academics, clerics and politicians were used extensively in early issues of the journal, and many of these ‘eugenic disciples’ later contributed articles, letters or other testimony to the *Eugenics* cause.

Subsequent issues did publish letters, responses or corrections from previous issues, in a feature called ‘What Readers Write.’ While a sizable minority did appear to come from ‘regular’ readers, the majority, and certainly the more comprehensive pieces, came from those whose names appear in the AES advisory council list, published on the inside front-cover of each issue (see Figure 4-1b earlier). In some cases these insiders appeared to be almost ‘planted shells,’ as a way to encourage ordinary readers to write-in and develop a larger, active journal community. Occasionally, authors of a critiqued piece would respond. There were repeated attempts to solicit feedback and criticism, as exemplified in Figure 4-8c on page 13 of the image file, taken from the August 1929 ‘War Number.’

The following few pages introduce the other regular departments of *Eugenics* from the ‘Birthday Number.’ I have incorporated the appropriate headings from *Eugenics* for the regular departments and features, as a way of introducing each major department or thematic section, while illustrating the original look of the journal/magazine.



POPULAR EDUCATION
BY FLORENCE BROWN SHERBON

Of all the regular departments in *Eugenics*, Popular Education, edited by Dr. Florence Brown Sherbon, had the most central mission for educating the layman in the various aspects of eugenics. Dr. Sherbon (1869-1945), professor of child care at the University of Kansas, was a veteran judge and organizer of the ‘Fitter Family Contests’ and a member of the *Committee on Popular Education of the AES* (later made committee chair in early 1929). She was the only female author with a regular column (see photo in Figure 4-8d on page 14 of the image file). One of the most striking features of her writing was the intimate blending of evangelical religious themes with the secular scientific dogma of American eugenics. This will be further explored in the next major section devoted to the Popular Education department, as well as her Symposium appearances and feature articles. A short excerpt from the opening paragraph of the debut installment, and her poetic “biological psalm of life” will serve as initial exemplars, reproduced in Figure 4-8e on page 14 of the image file.

After this brief inspirational opening, Sherbon provided a brief history of the *AES Committee on Popular Education*, and its core mission and program activities, as reproduced in Figure 4-8f on page 15 of the image file. Her description of the Fitter Family contests took-up the lion’s share of the debut column. Her name-dropping in this section provides some evidence of the vital role of popular education in the growth and spread of eugenics among the key public. The list of contest localities mapped popular support for eugenics along the Eastern Seaboard, also penetrating into the mid-West and South, and even promised a potential spread north into the Dominion of Canada. So far as I know, the Canadian contest, if it did happen, was local rather “dominion-wide,” but it shows the hoped-for wider appeal and memetic spread of popular eugenics.

After this overview of Fitter Families, Sherbon promoted other outreach efforts of the AES. The first initiative mentioned was a series of group-study programs available to civic clubs, local eugenics groups, sympathetic churches, or other interested groups. Second was a series of graphic exhibits available for display to similar types of organizations. Sherbon’s brief outline of both programs is excerpted in Figure 4-8g on page 15 of the image file. These initial popular education efforts were to be bolstered with much more ambitious plans and programs later, as will be profiled in the dedicated Popular Education section of this chapter, after my initial introduction to the other regular departments.

BIRTH REGULATION

BY ROBERT LATOU DICKINSON

Birth Regulation (the preferred euphemism to birth control) was a sensitive issue for the journal and the AES. Much of the older, male-dominated leadership of the AES considered birth regulation, as predominantly practiced, to be a dysgenic force. There were regular fears of Nordic ‘race-suicide,’ as contraception was being practiced by the ‘fitter-classes’ (like old-stock Anglo-Saxon couples) but it was being ignored by those social problem groups that eugenicists ruled should be limiting their births; thus giving rise to the dreaded “differential fecundity” documented by Ellsworth Huntington earlier in this section, in “The Next Revolution.”

On the other hand, the birth control issue brought many progressive women and women’s groups into the eugenics movement as allies. People like Margaret Sanger, Dr. Hannah M. Stone, and other early birth-control activists were profiled or contributed to the journal on the subject. Several news updates and even a couple of feature articles were devoted to the New York City Police raid on the offices of the main birth control clinic there, and the puritanical attempts by civil authorities to prosecute women who sent birth-control information through the mail, using the ‘obscene material’ provision that was designed to punish pornography.

However, for observant Catholics and many other devoutly religious people, any interference with conception and pregnancy was seen as anathema, especially once Pope Pius XI made this clear in his famous Encyclical (to be considered in the last section of this chapter dealing with the lone issue of *People* magazine, the successor to *Eugenics*, in the ‘End of *Eugenics*’ section). Thus, birth regulation was something of a double-edged sword for the American eugenics movement, leading to a cautious treatment and tread-lightly approach, with regular disclaimers that contraception was only to be used by lawfully married [heterosexual]⁷⁷ couples.

In the debut issue, Dr. Robert L. Dickenson (1861-1950 – a New York obstetrician and gynecologist, and a founder and secretary of the National Committee on Maternal Health) devoted most of his allotted page-and-a-half to defining terms, such as contraception, sterilization, and abortion. The last paragraph however, set out the mission for his department and its relation to eugenics education and research, and hinted at the sort of birth regulation that was desired by the AES and its Birth Regulation Committee, as excerpted in Figure 4-8h on page 16 of the image file.

⁷⁷ Unlike Norman Haire in *Hymen* (1928) featured in Chapter III, the AES did not endorse pre- or extra-marital sex, concubinage, or the ‘Eugenical Babies’ mentioned in the debut *Eugenics*’ Symposium (see Figure 4-6 on page 10 of the image file for this chapter).

NEWS AND NOTES

Another regular department of great import for eugenics education and publicity was the News and Notes section of the journal. It featured a wide variety of news items about the progress of eugenics in America or abroad, visiting dignitaries from other eugenical organizations; or to publicize local, national and international eugenics conferences, exhibitions and other events. In this, the feature catered more to professional education for the serious student or devotee of eugenics, rather than the novice or layman. The debut edition was typical of later iterations, featuring a bit of all the above, as reproduced in Figure 4-8j on page 16 and Figure 4-8k on page 17 of the image file.

IMMIGRATION

BY ROBERT DE C. WARD

Of all the regular departments, and more than most feature articles or symposia in *Eugenics*, the Immigration department bore the clearest, boldest stamp of the older, top-tier Nordacists in the AES and Galton Society; men like Madison Grant (the long-standing chair of the AES Immigration Committee), his mentor H. F. Osborn and his protégé, Harry H. Laughlin of the ERO. As Spiro (2009) details, it was the Immigration Restriction movement dating back to before World War I, with its apex in the immediate aftermath (like the ‘Spanish Flu’ and the first ‘Red Scare’), which was the ultimate success story of the American eugenics movement, in terms of public support. Before World War I, it was difficult to disentangle the Immigration Restriction movement and American eugenics, as they were largely composed of the same people. At the center of both were Madison Grant and the Galton Society. The passage of the Johnson-Reed Immigration Restriction Act of 1924 predated the incorporation of the AES (1926), but received considerable publicity in both the *Eugenical News* and the *Journal of Heredity*. Congressman Albert Johnson (R) and Senator David Reed (R) were recurring guests to *Eugenics*, advocating for additional provisions to select for Nordic immigrants, while tightening the screws on any attempt to bypass the legislation or its enforcement.

Robert DeCoursey Ward (Harvard professor of climatology) was the Immigration editor for the first few issues. The debut column was a brief analysis of the two main political party’s platforms on immigration restriction, culminating in a cautious endorsement of the Republican ticket, under Herbert Hoover. See Figure 4-8l on page 18 of the image file for the political punditry.

Though edited by Ward, the Immigration feature was often largely a summary of Madison Grant's earlier writings on the subject, but without the 'fighting words' of Grant's *Passing of the Great Race* (1916), or its successor publications. While 'racial snobbery' (the topic of a future Symposium) was not the great mortal sin it was to become in post-modern America, this column tried to soft-peddle the Nordacist supremacy theory in favour of associated economic and ecological arguments. For the first ten issues or so, the great topic for discussion and promotion was the 'National Origins' provision of the Johnson-Reed Act, which had been postponed for over two years, and threatened to again bog-down in protracted ethnic politics. This provision was to have made the annual immigration quotas for the various countries of Europe permanent and explicit, so as to maintain the relative predominance of the Anglo-Saxon race in America. In its place, the 1890 Census was being used as a temporary index, which favoured the Irish and German immigrant contingents that were dominant at that time. Advocates were anxious for the National Origins clause to come into legal force, as this would preferentially favour the British and Scandinavian quotas, both of whom were seen as more assimilable and eugenic than the mixed-race Irish or South-German populations. On no other issue did the discussion become so partisanly political. Readers were frequently enlisted to lobby for the journal's expressed agenda with their elected representatives.

Because of the importance of this issue to American eugenics, a major section of this chapter will be devoted to the Immigration department and the associated Legislation department that debuted the following month, as well as related feature articles and symposia for these two critical areas of the eugenics movement. This section will be essential for understanding the recent renaissance of right-wing Nativism in North America and Northern Europe, and illustrative of the persistence of racial-religious memes after the civil rights movement and the consequent push-back against non-Caucasian immigration after 9/11 and the 'War on Terror.'

Book Reviews and *Eugenics*' Who's Who

The final regular department at the end of each issue was devoted to reviewing relevant books and other publications. It was edited by Professor Samuel J. Holmes, professor of biology at the University of California, and author of *The Bibliography of Eugenics* (1924). It typically spanned three to four pages, with numerous critical reviews of the latest eugenical fare. Dr. Holmes kept up a prodigious output, unapproached by any other contributing critic. As a representative exemplar of the debut issue and indeed the entire publication run, the excerpt in Figure 4-8m on page 19 should suffice to convey the kind of critical flavour Professor Holmes brought to *Eugenics*.

The inside back-cover of *Eugenics* featured a brief biography or relevant notes for the various contributors to a particular issue; a very helpful feature to today's scholar, especially for those minor players that have been largely obscured in the subsequent settling of the sands of time. This feature was abandoned in April, 1930, after the suggestion of Madison Grant in a later letters section. See Figure 4-8n on page 20 of the image file for a snapshot of the debut "*Eugenics*' Who's Who" page.

'Critical' Reaction to the Birthday Number and Future *Eugenics* Trends

A carefully selected sample of 'critical' reactions to the debut issue of the new journal appeared in the second issue (p. 25) in the "What Readers Write" section, as reproduced in Figure 4-8o on page 21 of the image file. Three of the four letters came from AES insiders, including Madison Grant. Although he kept a rather low profile in the journal, Grant remained a key prime-mover in the AES.

Following the Birthday Number, each subsequent issue followed the same general format, with a rotating set of the monthly themes: immigration, the relation of religion to eugenics, eugenics education from early childhood to college, birth-control, eugenics and feminism, population growth and demographic changes, and other similar issues. Eugenics education in all its aspects was one of the recurring themes, and numerous participating institutions were regularly profiled in the journal.

A subsequent addition to the regular features was the Population department, edited by Guy Irving Burch, which debuted in June 1930. This also signified the increasing emphasis upon demographics and human geography in American eugenics, which became the core mission for the AES after World War II. This occurred after the Nordicist faction had died or was purged from the leadership, so that the organization became less overtly racist and expanded its gaze to the teeming masses outside America and Western Europe. The final act of this transformation was the renaming of the AES to the *Society for Biodemography and Social Biology*, in 1972 (see last section of this chapter).

One of the more striking contrasts between British and American eugenics was the prevalence of religious content and the evangelical tone of American eugenics, with the active participation of a number of Protestant sects and prominent ministers. The AES established a special committee for Co-operation with the Clergy, whose first chair was the ecclesiastical minister, Henry S. Huntington, older brother of Ellsworth Huntington. This mutual relationship was reinforced later when the AES launched annual contests for eugenical sermons, even publishing the top three winners in annual special issues. This scientific-religious union culminated in a regular column, "Eugenics and the Church" that debuted in July 1930. This symbiosis between eugenics and religion, especially its educational implications, is explored in some detail in a major section devoted to this fundamental memetic union in Appendix IV.

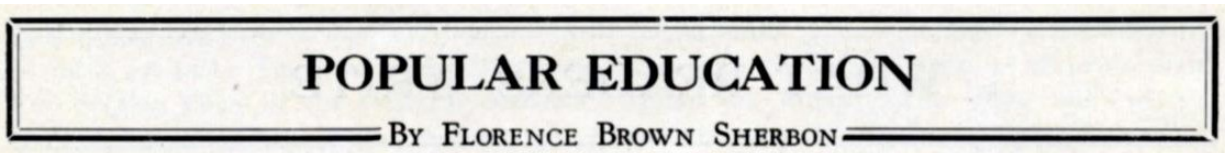
Another minor change occurred in 1930, with the January issue of volume 3, when the page numbering was continued from issue to issue, through the whole year, as opposed to the earlier practice of numbering each issue separately. In addition, as mentioned earlier, the *Eugenics' Who's Who* page was discontinued after March 1930. Subsequent feature articles or other irregular contributions contained a brief biographical blurb at the head of each article or feature.

But the ultimate transformation occurred in April 1931, when *Eugenics* was discontinued and replaced with *People Magazine*, for one issue only. It was hoped this change would bring in an influx of new subscribers and an expansion into the larger popular magazine market. The final major section in this chapter is devoted to the End of *Eugenics* and the lone issue of *People*, the literary equivalent of a 'Hail Mary Pass' in football. Unfortunately for the AES, the worsening Great Depression had a chilling effect on subscriptions and memberships. The AES files at the American Philosophical Society in Philadelphia have a folder for membership cancellations, and these accumulated after Black Tuesday (October 24, 1929) to become a flood. So, like the *To-day and Tomorrow* series of books, what began as a promising long-term venture to provide eugenical education to the progressive public, ended with an unplanned whimper.

Section Summary and Look Ahead to the Remainder of this Chapter

Following this initial introduction, the rest of this chapter will examine selected regular departments or thematic issues of the journal: beginning with Popular Education (focus on Popular Education), then Eugenical Institutions (focus on formal education), Immigration and Legislation (focus of Professional Education), and finally the End of *Eugenics/People* (focus on Popular Education). I have incorporated appropriate *Eugenics/People* headings for some of the regular departments or thematic features, as a way of introducing each department or section, while illustrating the original look.

The subsequent major sections of this chapter will introduce and analyze the selected regular departments and thematic thrusts of the journal, especially those with an obvious educational function or connection. This will begin with a detailed look at the "Popular Education" department, edited by Dr. Florence Brown Sherbon, as introduced previously. This section, as the name implies, focused on the popular education mission of the AES through the prodigious efforts of its committee of the same name; which was charged with the vital task of bringing-in new disciples to the movement and educating them in the basics of eugenics. It is especially important for addressing parts a and b of my initial research question from Chapter I, concentrating on the popular education function of *Eugenics*.



POPULAR EDUCATION
BY FLORENCE BROWN SHERBON

Without doubt, the most consistent and coordinated efforts by *Eugenics* to profess and promote eugenics education was the regular ‘Popular Education’ department, edited by University of Kansas professor of child-care, Dr. Florence Brown Sherbon (1869-1944), introduced in the previous section as part of the “Birthday Number.” Dr. Sherbon was elected the new chair of the Committee on Popular Education at the February 1929 AES Board of Directors meeting, as reported in the March ‘News and Notes’ (p. 29). After the October 1928 column debut, the November installment was just a one-column stub promoting the “Seashore Music Tests” (p. 35), designed to educate families in eugenics and the inheritance of musical ability.⁷⁸

Sherbon’s “Eugenic Disciples” Series

In the December 1928 “Religious Number,” Dr. Sherbon was given the frontispiece and lead-article to kick-off her series on vocations that play critical roles in popular eugenics education. The choice of “The Preachers Part” (pp. 3-5) for the premiere edition, rather than formal educators like herself, may have simply been an editorial decision to coincide with the religious theme of the issue. I suspect it was purposeful, given her liberal use of religious imagery and biblical metaphors throughout her writing; even writing short ‘eugenic psalms’ to fill the partially empty ‘short pages’ that irked some readers of the early issues. See Figure 4-9a on page 22 of the image file for the pious frontispiece that led into and blessed Sherbon’s first feature article.

The opening segment of Sherbon’s debut feature-article is excerpted in Figure 4-9b on page 23 of the image file. The prominent call-out box served as a brief job-description for eugenically-minded preachers who accepted this biological mission as part of their moral duty as shepherd to their flocks. Sherbon did yeoman’s duty in bridging the religious-scientific divide, revealing the true eugenic import of the Bible and the Hebrew race’s firm hereditarian outlook. She quoted half a dozen biblical passages ranging from Exodus to Luke, and then included some eugenical musings of the Reverend Henry Fosdick in a recent *Harper’s* magazine article.⁷⁹

⁷⁸ Music professor Seashore of the University of Iowa was on the AES Advisory Council, and a panelist for the December 1930 *Eugenics*’ Symposium on eugenic child allowances for faculty members (see symposium section). These tests were phonograph based, and interspersed eugenic lessons with musical interludes and recorded tones.

⁷⁹ Reverend Harry Emerson Fosdick was one of the Protestant ministers regularly featured and profiled in *Eugenics* (including a later article: “Where do Ministers Come From” in this same issue, pp. 22-28). Fosdick was a prominent

Following this look at the biblical past and its eugenical significance in the pre-scientific world, Sherbon challenged the clergy of today to fulfill their biological-moral mission for the inter-generational health and hereditary welfare of their flock, as excerpted in its entirety in Figure 4-9c on page 24 of the image file. This popular appeal to WASP pastors in America for their cooperation was a recurrent theme in *Eugenics*. Other issues and features were regularly devoted to this outreach mission, especially the annual *Eugenics*' sermon contest and the later addition of the 'Eugenics and the Church' column that took up this cause as a regular feature (see Appendix IV).

Following a hiatus at the beginning of the New Year, Sherbon's Popular Education returned in February 1929, with the second installment of her eugenic vocations series (p. 31, 32). This time the limelight was shone on the teachers in America's public and Protestant religious schools, or elite academies for the sons and daughters of old-stock Anglo-Saxon scions. But here the focus was not on the high school 'civic biology' teacher, or his college counterpart, but on the elementary science teacher, who, more often than not, was a young, unmarried woman. Sherbon's fervent plea was for these teachers of the youngest pupils to inspire a scientific understanding and religious reverence for life in their young students. This was seen as good preparation for when they became adults and the parents of future generations even further separated from the pastoral life of their forebears; who had witnessed firsthand the importance of heredity in their daily rural lives, unobscured by the effete trappings of modern, urban civilization. See her plea to expand eugenics education to these youngest sheep, as excerpted in Figure 4-9d on page 25 of the image file.

Sherbon went on to lament the artificial barriers modern science education had placed between children and realistic instances of sex, maternity and childbirth. She hailed pioneering efforts at 'nature study' for elementary children in Oregon, California and other instances of progressive education for real life. She singled out one promising teacher-administrator from Tulsa, Oklahoma, who pioneered a life-science curriculum for the primary grades, and then extended it throughout grade-school to junior college. Miss Pratt eventually witnessed the convocation of the first cohort of graduates that she had taught and directed in their eugenic growth all through their school years. See Figure 4-9e on page 24 of the image file for Sherbon's glowing praise of this eugenic pioneer and the prophesized racial-benefits of these reforms.

member of the AES Committee on Co-operation with the Clergy, which was also tasked with popular education of their faithful flocks. This doctrinal and pedagogical function of the "Progressive Protestant" clergy is explored in detail in the "Eugenics and the Church" section of Appendix IV.

This teacher-edition of Sherbon's vocational series closed with a short announcement, heralding the arrival of a new series of pamphlets and visual-aides for community groups, parishes or home-study groups on eugenic topics, as prepared by the Popular Education Committee, of which she had recently been appointed as the chair. This is excerpted in Figure 4-9f on page 24 of the image file.

The March 1929 Popular Education column featured the next installment of Dr. Sherbon's series on eugenic disciples, this time dealing with the scientific writer or popularizer of science for non-scientists (p. 30, 31). This role of eugenical science interpreter and popularizer was adopted by Sherbon herself in later editions, in a series describing genes and the 'Chemistry of Heredity' (more on this later in this section). She also hailed the eugenic evangelization by the "fiction writer, the playwright and even the poet" (p. 30) and gave several examples, including George Bernard Shaw. She concluded with the proclamation: "So the disciple of the pen breaks the bread of truth and there yet remain seven times seven baskets full" (p. 31), echoing Christ's miraculous multiplication of the loaves. See the excerpt on the writer as eugenic disciple, in Figure 4-9g on page 26 of the image file.

Dr. Sherbon was not a strict hereditarian, but blended eugenics, psychology and a Midwestern brand of Puritan social reform in her eugenic prescriptions. In many ways, she personified the sort of family-centred reform eugenics, often aimed at women, which dominated the Depression and War-years. A post-modern examination and exposition of all these literary and artistic connections to eugenic popularization can be found in the edited volume: *Popular Eugenics: National Efficiency and American Mass Culture in the 1930s* (2006).

Finally, in the May 1929 Popular Education column, Dr. Sherbon concluded her series on eugenical vocations, by profiling "The Agriculturist" (p. 35, 36). Harkening back to the modest birth of organized American eugenics as a section of the *American Breeders Association* (see earlier section on the Genesis and multiplication of American eugenics organizations), Sherbon described the intimate connections between farming, animal husbandry and eugenics, and hailed the exposition and popularization of eugenics at State or County Agricultural Fairs. This popular education outreach occurred alongside the 'Fitter Families' and 'Better Babies' contests that flourished throughout the 1920s and early 1930s (and which first brought Sherbon to the notice of the leadership of the AES). She also highlighted the recent adoption of eugenics education and research by agricultural colleges in the Midwest and the Bible-belt, some of which were profiled in later editions of "Eugenical Institutions" (see section on this regular department later in this chapter). See Sherbon's ode to the farmer and eugenically-inclined agricultural scientists in Figure 4-9h on page 27 of the image file.

Thus, over the course of Sherbon's "eugenic disciples" series, she addressed the main vectors (or meme-vehicles) for the systematic horizontal transmission of eugenics memes, in both formal and popular eugenics education, and attempted to recruit sympathetic professionals among the clergy, classroom teachers, science writers and agriculturists into the evangelical mission of the AES. This series was the first of several that used the journal to create a curriculum and course content for the popularization of eugenics among the progressive elements of Interwar WASP America.

Fitter Families Breed Better Babies

Having authored the four gospels of the various eugenic disciples and their essential vocations for evangelizing eugenics, Sherbon then expanded her exposition of the origin and development of the "Fitter Families" contests that she helped pioneer in her home State of Kansas, in the June 1929 "Medical Number" (p. 32, 33). Here she offered a retrospective history of the contests, and their sponsor eugenic organizations, first by Dr. John Kellogg's *Race Betterment Foundation*, before the sponsorship was assumed by the AES and promoted in *Eugenics* when it began publishing in late 1928. The opening segment of this edition is excerpted in Figure 4-9i on page 28 of the image file.

As Dr. Sherbon explained, the contestants were divided into categories corresponding to the size or 'completeness' of families, from eugenically-promising young engaged couples, to the older very prolific scions of large families, with their big broods of Anglo-Saxon thoroughbreds. The most prestigious award was always the largest family category (Class 4: with five or more children), who would not only preserve their lineage, but also multiply like Christ's miraculous loaves and fishes to replenish the Nordic race amongst the unfit and the lesser races who were breeding prolifically in America's metropolitan slums and backwoods ghettos.⁸⁰ It was the progressive farming areas of the Midwest, as well as the burgeoning suburbs and tidy college towns that surrounded the increasingly suspect big cities, where the AES began to turn to as genetic-memetic repositories and breeding grounds for new generations of the old-stock Nordics that built and civilized America.

The reward for the fittest of the fit was a bronze medallion designed by the Galton Society (and pictured on the Title and Contents page of each issue of *Eugenics*, as illustrated earlier). But often, the more valuable prize was positive press coverage by the local papers, or even the regional dailies of the nearest big-city herald. Some families even gained national attention in popular magazines, much as the pioneering Quaker "Edwards" family had done in early eugenics lore, as the unnamed eugenic side of Henry Goddard's *The Kallikaks* (1912).

⁸⁰ The journal presented a multipart series on one such dysgenic rural family, labelled "The Bunglers," during the last few issues of *Eugenics*.

The exemplary family published in this issue of *Eugenics* is provided courtesy of *Good Health Magazine*, a popular periodical of the time of which many analogues still exist today, but now often with a more individualistic agenda on the aging baby-boomers who rarely reproduced as prolifically as their parents. Figure 4-9j on page 29 of the image file shows the ‘Jones Family,’ winners of the most prestigious large family category in the Hartland, Michigan contest. Thus, the readership was literally exhorted to keep-up with the Jones’s in breeding the next generation of eugenic disciples and do their duty in postponing WASP race-suicide and counteracting the swell of racial inferiors in America’s teaming cities, or the ‘White Trash degenerates’ in dysgenic, rural backwater gene-pools.

Again in November 1929, “Fitter Family Winners” (p. 36) were the subject for Sherbon’s column in the “War Number,” which had feature articles and an editorial devoted to appraising the eugenic and dysgenic effects of war. In this edition, Sherbon acted as eugenic news reporter, narrating an account of the Fitter Family contest from the Kansas Free Fair, held in Topeka from September 9-14. Having previously described the history and operation of the contests, she devoted most of the column to a description of the latest crop of winners, providing insight into the types of people who entered the competitions, and those who won individual or family honours. Sherbon described this year’s competition as particularly formidable, with a large number of repeat entrants, some of whom maintained or improved their standings, and others who were edged-out by new challengers, in a truly Darwinian artificial-selection process. She took pride in relating that there were more entries in the large family category than in any previous year. Of particular interest for this study, was a fairly detailed description of the “educational history of the parents of those families” (p. 37), from which selected examples are excerpted in Figure 4-9k on page 31 of the image file.

In addition to their educational attainments, Sherbon described the winners' hobbies or interests, first for the men and then the mothers. She concluded with a brief summary of the “temperate habits” (p. 37) of these eugenical exemplars. In the midst of Prohibition, Sherbon assumed they would all be ‘dry’ and reported instead on their general abstinence of tobacco and coffee, as shown in Figure 4-9l on page 309 of the image file. This illustrates the continued importance of eugenics and ‘clean-living’ in the eugenics movement, which received much support from the more puritanical American churches and temperance groups.

Today’s readers should recall that this journal issue would have been the first to be published following *Black Tuesday* (October 24, 1929), when the Great Crash of the New York stock market heralded the beginning of the Great Depression, and ended the Progressive-era in the United States. There was no official recognition of this watershed moment in this issue, as it would have come after the deadline for submitting articles. In retrospect though, we may mark the market crash as a

tipping-point and the beginning of a long decline for the journal, the AES and the American eugenics movement. Their stored momentum would propel *Eugenics* for another year-and-a-half, and allow the AES to survive through World War II as a diminished remnant with a partially reformed leadership and mission. It is worth noting however, that the Depression was used as evidence of the very social-evils that the AES had been preaching against, and interpreted as proof of their eugenic admonitions. Thus, for *Eugenics*' editorial board and the leadership of the AES, the downturn was a further vindication of their Nativist-Nordicist paradigm and hereditarian worldview, as well as the scientific principles underpinning eugenics, not as a refutation or invalidation.

A Return to the Work of the Eugenic Disciples

For the final Popular Education column of the decade, Dr. Sherbon returned to her religious roots, updating her series on the eugenic disciples and their vital role in popularization of the movement, as part of the December 1929 “Woman’s Number”⁸¹ (p. 36, 37). She considered what had been happening on this front and whether their efforts were bearing good fruit, as well as hinting at some thorns that may be choking-off popular eugenical progress. Of particular interest was the influence of a number of memetic rivals to the gospel of eugenics and hereditarianism; especially the new discipline of behavioural psychology and the ongoing efforts of the environmentalists that competed for the layman’s attention and ideological allegiance. An initial excerpt, recapitulating her earlier series, and then looking forward is provided in Figure 4-9m on page 31 of the image file.

Using a curious combination of religious and scientific-technical terminology, and loaded with “biological high explosive” (p. 36) rhetoric more apropos for the previous month’s “War Number,” Sherbon warned that “the common citizen is, with almost explosive suddenness, taking his biological destiny into his own hands and saying, ‘After me there shall be no more life’; or, ‘I shall have one or two or four children and no more, but I want these to be choice of their kind’ ” (p. 37). She also considered the citizen-representative in State government and his limited knowledge of eugenics when formulating the legislation that will determine the biological and social destinies of his fellows and their families, including what shall be taught to their children, as the excerpt in Figure 4-9n on page 31 of the image file reveals.

⁸¹ This issue also features a lead article “Feminism and the Race” by visiting British eugenicist and noted feminist Cora B.S. Hodson, Secretary of the British *Eugenics’ Society*, in the midst of her American lecture tour and survey.

Sherbon exhorted supporters that amidst the confusion of popular press reports and competing propaganda from various quarters, it is more important than ever for eugenic disciples to get their messages into the general public consciousness, lest their opponents or rivals spread their memes, paradigms and social prescriptions more efficiently and effectively than the hereditarian viewpoint. So who were these detractors or competitors that eugenic disciples had to contend with? Sherbon revealed a couple of these rivals for the hearts and minds of the layman, using excerpts of their writings in popular magazines, as presented in Figure 4-9o on page 32 of the image file. The first environmentalist rival is Dr. John B. Watson, acknowledged founder of the Behaviorist School of Psychology, writing in *Harper's* (1927) and *Liberty* (1929) magazine. The second popular threat came from Dr. George A. Dorsey, an American ethnographer and cultural anthropologist at Harvard, a likeminded colleague of Franz Boas and vocal detractor of eugenics.

Opposing the social-determinism of Watson and Dempsey was one of the penultimate champions of eugenic popularization, Albert Edward Wiggam, whose family-friendly books were prominently featured for sale in the *Eugenics'* Book Club (see list in the previous introductory section). And somewhere in the middle, was the famous American geneticist and popularizer of his discipline, Herbert Spencer Jennings, the author of *Prometheus: or Biology and the Advancement of Man* (1925), from the *To-day and To-morrow* series (reviewed in Chapter III). Although Jennings was a critic of the Nordacist racial-outlook and the gross oversimplification of Mendelian inheritance as promulgated by early eugenicists, he remained a supporter of eugenics for social-control; although he deigned to not join the AES or publicly lend his name to their efforts (Barkan, 1992, pp. 188-209). All these critics and allies were presented as competing forces, causing confusion and bewilderment in the layman's mind, unless the eugenic disciples could straighten them out.

Finally, Sherbon proposed a scheme to gather data from readers of *Eugenics*, like a focus group for eugenic memes, in the hopes of formulating an enlightened and effective program for popular education in eugenics, as shown in Figure 4-9p on page 32 of the image file. Two subsequent Popular Education series would attempt to dispel some of this confusion in the laity, and hammer-out a comprehensive program for their education. (See later in this section for a closer look at these organized meme-management efforts by Dr. Sherbon.)

The fall of 1929 was also a busy period for Dr. Sherbon in other sections of *Eugenics*; with her second full-length feature article published in *Eugenics*, and her first appearance on the Symposium panel. Her article: "Adolescent Fantasy as a Determiner of Adult Conduct," was originally a paper read at the annual meeting of the AES and ERA, and eventually published in condensed form in October's "Children Number" (pp. 8-16).

In the September 1929 “Crime Number,” Dr. Sherbon appeared in her first Symposium, along with Paul Popenoe and Eastern European anthropologist Ales Hrdlicka, writing on the question of “Eugenics and Democracy: Are the Two Compatible?” (p. 28, 29). Sherbon was allotted a full page to respond. Her response is excerpted in Figure 4-9q on page 33 of the image file, along with the preliminary setup. Dr. Popenoe’s response is also shown in its entirety in Figure 4-9r on page 34 of the image file. Although Popenoe, now transplanted to California, was no longer a member of the editorial board or an executive officer of the AES, he retained his position on the advisory council and was a frequent contributor to the journal, with two ‘Eugenical Institutions’ features and several articles on eugenic sterilization and other matters. He was regularly featured in ‘News and Notes’ or other regular departments, including Popular Education (see next section for more details).

1930: The Momentum of *Eugenics* Collides with the Iceberg of the Great Depression

1930 was a turning point for the *Journal of Race Betterment*, as a result of the worsening economic malaise wrought by the Depression. But the AES and *Eugenics*’ editorial committee had great plans: beginning new regular features, adding new staff, and preparing for a breakthrough to a larger audience and greater public awareness. For Florence Brown Sherbon and her Popular Education department, the New Year and Decade started on a sad note. The one-page column in January was fully dedicated to the memorial of Dr. Edwin E. Slosson, a former chemistry professor at the University of Wisconsin, turned writer, editor and popular educator. While living in Laramie, he began contributing science stories to *The Independent*, a weekly magazine headquartered in New York City. He was soon offered the position of literary editor and later managing editor at the magazine, and then in 1920 became the first director of *Science Service*, which provided simplified articles on science topics for the popular press, published by newspaper magnate E. W. Scripps. In this capacity, Slosson became a friend of *Eugenics* by editing or writing articles on eugenics, genetics and Mendelian inheritance for the common man. He became one of the original members of the AES Popular Education Committee, and “wrote a cordial letter to the chairman, placing *Science Service* at the service” (p. 31) of the Committee. Sherbon included excerpts from several of Slosson’s speeches on natural philosophy and man’s part in God’s Plan. She lamented his loss with this eulogy: “It is a matter of regret that the committee should lose its most eminent exponent of popular education on the eve of its real activity” (p. 31).

As if in mourning, there was no column or other Sherbon features for February, but the return of spring heralded a bloom of new activity for her and the Popular Education Committee. In March 1930, she made her second appearance on the Symposium panel, alongside C.C. Little (former AES

President turned cancer researcher), and three other insiders within the organization: C. G. Campbell (current president of the ERA), Earnest A. Hooton (Harvard anthropology professor and celebrity author) and J. H. Gerould (professor of biology at Dartmouth, and editor of the *Journal of Morphology and Physiology*). Sherbon's inclusion with this Ivy League of *Eugenics*-experts is further evidence of her rising stock in the AES, even as the Great Depression plunged America into crisis. The Symposium topic: "Shall We Apply Eugenic Tenets: Do We Know Enough to Proceed?" (pp. 100-103), had obvious educational implications and was central to the AES's and *Eugenics*' mission. The top section of Sherbon's response is shown in Figure 4-9s on page 36 of the image file, in which she indicated a need for scientific reform of eugenics, based on new research and a growing empirical knowledge of the complexities of heredity.

All the panelists acknowledged either past controversies that stalled eugenic progress, or opposition from some scientists to simplistic assertions regarding human heredity and eugenics. But they all looked-forward to a resurgence of solid empirical research and a firmer scientific basis for a reformed eugenics, along with its efficient dissemination through formal education and popular forums. Sherbon took umbrage with those 'pure' scientists who would forever postpone the practical application of eugenics, based on its youth and slim corpus of definite laws, or who were suspicious of its collaboration with amateurs, enthusiasts and popularizers. She argued this perpetual delay was an immoral stance that actually postponed eugenics' humane application "for ameliorating human suffering" (p. 100). Sherbon concluded her response by proclaiming: "We must make what shift we can and keep step as the march goes on" (p. 102). See her partial *mea culpa* and resolution to keep marching-onward like Christian soldiers, in Figure 4-9t on page 35 of the image file.

A Public Welcome to New Eugenic Disciples

Also in the March 1930 issue, Sherbon's column (p. 115, 116) welcomed a new, expert addition to her Committee and to *Eugenics*; one who would go on to assume a significant role in the reformed AES of the 1930s. The introduction of Mr. S. Wayne Evans as the new, full-time Popular Education secretary was a sign of a growing need for popular education outreach, and also evidence that graduate education in eugenics at America's premier research universities (in this case Columbia at the Master's level) was beginning to pay dividends. The introduction and picture of Mr. Evans, who later edited the full-length AES book *Organized Eugenics* (1931), is excerpted in Figure 4-10a on page 36 of the image file. Evans later contributed a full-length feature "Eugenics on Parade" (v3n10, pp. 390-394), which is profiled in the section on Eugenics Education feature articles, in Appendix IV.

The remainder of the March column included a renewed commitment to the family as the basic unit of society and the natural starting point for eugenics education. She sketched an initial program for popular education within the family unit, which made use of existing family pedigree materials provided by the Eugenics Record Office, and also hailed a new partnership between the AES and Dr. John Kellogg's *Race Betterment Foundation*. Future issues of *Popular Education* would update and expand this curriculum as it was developed with Mr. Evans and the rest of their committee. See the excerpted sections of this declaration and program in Figure 4-10b on page 37 of the image file.

In the same vein as this renewed commitment to the family unit and sound parenthood, Sherbon concluded her March column with a brief introduction to a new “eugenical institution, the *Family Relations Institute* of Los Angeles, under the direction of Dr. Paul Popenoe” (p. 116). Sherbon noted its establishment “has been heralded in the press – all of which aids the cause of popular eugenics education.” She included a couple of quotes by Popenoe from his grand-opening speech, on the mission and roles of the fledgling institute, and added her own summary of these services:

The work of the institute, as outlined in the press, will consist of public education, personal service and research. There will be a special emphasis on pre-marital work. This phase will include a full physical examination and consideration of the personal and family history, as well as personal consultation with supplementary reading so that [quoting Popenoe] “young people contemplating marriage can enter into it with eyes open and knowing what to expect.” (p. 116)

In addition to pre-marriage and eugenic counseling, Sherbon quoted Popenoe's fervent hope that the establishment of the *Family Relations Institute* “will be of service in preventing divorce” and noted that “in Los Angeles last year there were three suits for divorce filed for every five marriage licenses issued” (p. 116). Sounding somewhat like Norman Haire in *Hymen*, Popenoe claimed a majority of these broken marriages were due to basic “mal-adjustment, misunderstanding or ignorance, which can easily be settled by a heart to heart talk with someone who can explain with scientific information” (p. 116). Together with the *Human Betterment Foundation* (see Eugenic Institutions section) that Popenoe and E.S. Gosney established for contraception and sterilization services, the new *Family Relations Institute* provided the essential kernels for a West-Coast eugenics infrastructure. These grew into the post-war disciplines of marriage-counseling, genetic-counseling and family-planning services, which eventually included abortion as well. The Eugenic Institutions episode in the April 1930 issue (pp. 134-136), authored by Popenoe, was devoted to this new institute, and the May 1930 issue added pictures and profiles of its original staff. One of these latter issue's photos, showing Dr. Popenoe in action in his capacity as a eugenic-genetic counselor of prospective parents is reproduced in Figure 4-10c on page 38 of the image file.

The next iteration of Popular Education (May 1930), following on the heels of the pictures and staff profiles for Popenoe's Family Relations Institute, was a follow-up of Sherbon's first sketch of a program for family-based eugenics education, entitled "A Tentative Program" (p. 199). This initial program will be considered later in this section, along with a formalized program for popular education that was published in the final issue of *Eugenics*.

In the meantime, this study will turn to another seminal sequence of Popular Education installments, in which Sherbon again assumed the eugenic disciple's role of science interpreter and popularizer. Over the course of six issues at the tail-end of *Eugenics*' production run, Sherbon methodically built-up a comprehensive hereditarian paradigm explaining genes, chromosomes, the chemistry of heredity and the cosmic patterns of human development to the layman. This collection of popular education pieces is illustrative of the reform eugenics paradigm of the 1930s, originally identified by Kevles (1987), which gradually replaced the Nativist-Nordicist paradigm of Grant, Osborn and the elite Galton Society, while still conforming to the hereditarian worldview.

Sherbon as Science Interpreter, Popularizer and Literary Eugenic Disciple

Returning to the role of eugenic disciple that she had begun her Popular Education department with, Dr. Sherbon's next major project was a series of columns explaining the science of chromosomes, genes, the chemistry of heredity and unveiling the patterns of human development to the novice or layman. A complete description and analysis from the perspective of modern genetics and social-science understanding of each installment of this series would make for a chapter in itself. This section will provide but a brief survey of the metaphors, allusions and popular memes that Sherbon used to try to educate the layman in the basics of biochemistry and heredity. Casual readers or non-biologists would have received little or no formal education in these subjects, relying on unreliable popular media for any prior explanations. Sherbon devoted a total of six issues of her column to this educational outreach mission, and some of her columns were expanded to three full-pages from the usual one or two that had been typical. This is another indication of the increasing reliance placed on Sherbon for popular education in *Eugenics*, and the ultimately futile hope of bringing-in new readers, new subscribers and dues-paying eugenic disciples to the AES.

This series began in the June 1930 "Dysgenics Number" with a two-page column on "The Gene" (p. 235, 236). There was no introduction here, but the one-page continuation in the August issue (p. 317) concluded with a brief editor's note.

Sherbon began this long journey by reiterating the “function of popular eugenics education,” as being “to translate science into the general vernacular and thereby make it function in the thought and conduct of the people” (p. 235). This is a modernist reboot of Martin Luther, as a Prometheus for his time, making the Word available to the people in a vernacular they could understand, rather than the Latin *logos* of the Church elite. This would be essential if the hereditarian gospel was to compete with the popular memes of the environmentalists or the behaviourists, as explained in her December 1929 column. But complicating this mission was a factor that Luther never faced, in that the eugenics’ gospel required constant updating as new scientific discoveries were made and new knowledge was accreted to the old; or as Sherbon expressed it: “This would be simpler if not for the fact that we must forever be explaining that yesterday’s truth is today’s error” (p. 235). She explained that this has been done so far, but that the modern “theory of the gene” goes as far beyond “Like begets like,” as the new Gestalt psychology goes beyond “An eye for an eye” (p. 235). Despite the relative youth of genetics and its related disciplines, the scientific literature “is already voluminous and technical,” so the task became one of sifting-out from the large mass of research and growing corpus of knowledge, “a few kernels solid enough and salty enough for the common man to set his teeth into,” and formulating order from the chaos “in this apparently intricate and endless maze” into a “clear guide to social conduct in the way of desirable population control” (p. 235).

In this quest for scientific coherence and social order, Sherbon turned to the dean of American experimental genetics, T.H. Morgan (1866-1945), and his recently revised book “*The Theory of the Gene* (Yale University, 1928).” Just as Christ fulfilled the prophecies of Old Testament prophets and the gospels of the New Testament reinterpreted the Old for a new age; Sherbon remarked that “the theory of the gene does not replace so much as it explains Mendelian law, mutations and chromosomes” (p. 235). Like Old Testament prophecy predicted the Messiah, “chromosomes were predicted before they were seen, and “are now freely visible and even perform upon the moving picture screen” (p. 235) She extended her analogy to the physical sciences, stating that “the gene is to the geneticist what the atom is to the chemist and the electron is to the physicist. All these are ultimate mathematical units whereby behavior (energy expenditure of a specific kind) can be predicted and expressed” (p. 235). And like Jesus updated the Commandments originally revealed by Moses, Sherbon explained the need for updating eugenic lore from previous understandings to the complicated realities faced by a new generation of biological theologians, as excerpted in Figure 4-10e on page 38 of the image file.

Dr. Sherbon then went on to explain the role of the cell nucleus and genes, using the metaphor of packing-boxes or steamer trunks that would be familiar to well-to-do travellers and at least

comprehensible to the average educated man in Depression-era America. It must be remembered that this was two decades before Watson and Crick elucidated the chemical mechanics of DNA, and the molecular basis for heredity. Popularizing those later advances also depended on metaphors, analogies and popular memes, as well as introducing new technical terms and buzzwords. While the allusions, metaphors and terms may have changed, there is nothing really substantially different in the explanations that might be given to elementary students today; or in the basic explanations in mainstream media stories on genetic engineering or medical science breakthroughs. A short portion of Sherbon's travelling allegory is excerpted in Figure 4-10f on page 39 of the image file.

Sherbon continued her packing and sorting metaphor under the guidance of a prescient steward through the process of gamete formation and then fertilization of egg by sperm, where the packets were recombined into a new human host, "which develops from them according to mathematical formulae and all put down in the book of heredity" (p. 236). But she expressed some doubt with the 'dominance' of old ideas, such as 'unit characters,' which had been under attack by various scientific critics, like Morgan, Raymond Pearl, and H. S. Jennings in *Prometheus* (1925). These criticisms were used by the opponents of eugenics on ideological grounds, as personified by Watson or Dorsey in the December 1929 Popular Education column that had inspired Sherbon's latest incarnation as eugenic disciple. She described with secular fascination the mystery of these packet-genes, and their temporal and wide-ranging effects on the organism from egg to adulthood. In all, her overview was an evolutionary step forward from the crude eugenical laws postulated by the first generation of American geneticists, like Castle, Conklin and Davenport.

But there was nothing in her reformed view that seriously shook the foundations of hereditarian ideology. The new science required additional statistical sophistication and lacked the earlier certainty for individuals, replaced by mathematical probabilities and macroscopic formulae for populations. Sherbon admitted the incredible complexity of traits as simple as eye colour ("50 genes") or wing structure ("90 genes") in *Drosophila*, while offering the rather simple example of skin colour in humans ("3 genes"). She noted in her conclusion that "the effect of one gene can be altered or entirely inhibited by others" (p. 236), leaving open the possibility that conditions as complex as feeble-mindedness or criminality could still be caused by one mutant gene or one errant mating among the unfit. So, although it may have undergone a reformation, this new eugenic gospel for the masses did not throw out the baby of essential hereditarian dogma with the stagnant bathwater of old or discredited eugenic lore.

There was no Popular Education column in July 1930. Instead, Sherbon set the woman's record for appearances in the *Eugenics*' Symposium, with her third panel in the "Marriage" issue, where the question was "Eugenics and Companionate Marriage: Are they Compatible?" (pp. 262-264).⁸²

Sherbon continued her story of the gene in the August 1930 issue, which coincidentally featured a symposium on "Feminism and the 'New Woman': Their Eugenic Significances" (p. 303, 304). Though she did not participate in this forum, Sherbon was *Eugenics*' prime role model for the emancipated new woman who could combine academic rigor and urbane knowledge with religious submission, and a motherly instinct with inculcated eugenic ideals of a high moral order. Her one-page column concluded her introduction to the theory of the gene and attempted to make them visible to the layman. Here, she switched from packing cases and stewards to the models of the invisible atom that chemists and physicists used to describe a reality that cannot be seen directly, and must be determined empirically by inference from indirect observations. She returned to T. H. Morgan and his empirical efforts to determine the approximate size of the minute genes from *Drosophila*. His best "supposition" was that genes "fall within the size range of the larger organic molecules" (p. 317). Having estimated their size, Sherbon admitted that trying to estimate the total number of genes in a human germ cell "leads to complete bewilderment," and only nature knows how they are numbered, sorted and given a specific potency. But she advocated for patience as "the infinitely patient and infinitely precise methods of the laboratory already begin to reveal fragments of the magnificent orderliness of the procedures of evolutionary life" (p. 317). Then she offered a fuzzy macroscopic view that seemed to have developed in that infinitely precise laboratory, since the advent of Morgan's gene theory:

It will be seen that it is clearly possible for a limited number only of these millions of potential traits to come to expression in every individual. It is clear that the submicroscopic germ cell with its millions of chemical determiners lays hold of its environment according to the affinities afforded to these determiners by the environment. It is clear that these determiners or genes may or may not receive appropriate stimulation and nutrition by the environment and that there may or may not be corresponding harmonious inner adjustment and growth. (p. 317)

All of this roughly conforms to the 'reform eugenics' worldview that held the hereditarian influence to be of primary potency, but allowed for some environmental effects and variations. But

⁸² Again, Sherbon was the only female participant, arrayed with four men of eugenic renown: a former judge turned popular author, a Yale professor, and two clergymen, including the new Secretary for the AES Committee on Cooperation with Clergymen, Kenneth C. Macarthur (see section on Eugenics and the Church in Appendix IV). Sherbon enumerated the new conditions of modern social life, and she juggled the packets of social forces to be balanced by rational scientific equilibration, much like the eugenic reform she was popularizing in her latest series.

Sherbon clarified this agnostic view, to emphasize an innate biological determinism, and she castigated extremists on both ends of the scale. In her final paragraph, she denied any need to stop eugenic progress due to a current lack of empirical certainty, but called for humility and caution on both sides. These concluding paragraphs are excerpted in Figure 4-10g, on page 39 of the image file.

Having covered the biological reality and amazing potential of genes, Sherbon shifted disciplines to consider the “Chemistry of Heredity” in the September 1930 “Motherhood” issue (p. 356, 357). In this episode, Sherbon first considered distant evolutionary history and an emerging theory on the origin of life, involving the new field of colloidal chemistry that was making waves, in which colloids were postulated as an intermediate evolutionary stage between primeval inorganic compounds and the molecules of life that we know as proteins and nucleic acids. This was at the same time when scientists like J. B. S. Haldane (author of *Daedalus*) and Soviet biochemist Alexander Oparin first experimented with and hypothesized *abiogenesis* to synthesize vital molecules of life from simple precursors in the lab, with the aid of electricity and electromagnetic radiation to simulate the harsh environment of a pre-biotic earth; but still more than 20-years before the famous Miller-Urey experiment that won great distinction. Sherbon offered novices insight into these pioneering experiments and speculation by scientists, as excerpted in Figure 4-10h on page 40 of the image file.

From these organic precursors of life, Sherbon ascended a level of organization to describe the structure and cellular roles of proteins in the cytoplasm or nucleus, and as the animators of the living cell as enzymes or hormones; along with the newly discovered nucleic acids from the heads of sperm cells, which seemed to have consistent properties across species. Although there is no exposition of their intricate structure (as Nobel laureates Watson and Crick would eventually do two decades later), Sherbon managed to combine numerous streams of cutting-edge biochemistry research and translate them into a marginally comprehensible ink-blot for an educated reader. She concluded her latest science education installment with two paragraphs that summarized the important points from a eugenic perspective, and foreshadowed the ascent to the next level of organization and disciplinary viewpoints for the next installment; as excerpted in Figure 4-10i on page 40 of the image file.

Returning in the November 1930 “Race Improvement” issue of *Eugenics* with her next edition (pp. 436-438), Sherbon attempted to elucidate “The Pattern” of biological organization, aided by AES executive secretary Leon Whitney and his recent book: *The Basis of Breeding* (1928). This spanned the development of multicellular organisms, including the crown of creation: modern man who had populated the earth and dominated its evolutionary forms with his science and technology. Here, Sherbon shifted from genetics and biochemistry to appraise physiology and the neurological foundations of behavior that impinge on humanity, relying on a handful of other foundational scientists that attempted to bridge the gap between biology and the social sciences of the 1920s.

Sherbon began her column with a quote from Whitney's latest book (*The Basis of Breeding*, 1928). She speculated on the predetermination of biological destiny by an intelligent force of nature, versus the possibility that dumb chance and random environmental interactions might have resulted in the grand panorama of nature's pageant of life. This echoed what others had done before and presaged other philosophers and popularizers, including that post-modern popularizer of atheist evolution and the originator of the Meme concept, Richard Dawkins, in *The Selfish Gene* (1976). As a confirmed believer in a higher power, Sherbon insisted that there was order and organization behind the chaos of higher organic evolution. The initial excerpt from the opening page (p. 436) put this debate into a popular context for the time, as shown in Figure 4-10j on page 41 of the image file.

From this holistic unity of life and the synergy of heredity and environment on development, Sherbon segued into considering the "physiological gradients" (p. 437) of developing tissues into the multicellular organic wholes of complex organisms, under the control of "centers of dominance" in the growing embryo, resulting in the appearance of defined structures and organs from primitive templates laid down earlier. She further departed from the hereditary dominance of Morgan's gene theory to a gumbo of biochemistry, physiology and environmental reactions, as postulated by University of Chicago professor C.M. Child in his *Physiological Foundations of Behavior* (1924):

Child sums up the matter of heredity thus: "Of course the particular types of mechanism and their relation in particular organisms is primarily a matter of hereditary constitution and potentialities of the protoplasm constituting the organism, but in the development of the individual certain physiological conditions are necessary for the realization of these hereditary potentialities. These physiological conditions originate in the physiological gradients...The organism is not, as Morgan puts it, 'the collective action of the genes', but rather the collective *reaction* of the genes to the differential action of the environment. We may say then that the pattern of development, as well as the function of the individual organism, represent the behavior of the organism in a given environment. Or more briefly, the individual organism *represents a behavior pattern in a specific protoplasm*" (italics ours). (p. 437)

Sherbon continued to illustrate the patterns of inheritance that create order from the unseen chaos of genes acting according to an unpublished script, in which gene products combined in a set pattern to create the shadowy outlines of the fixed characteristics of the individual: "*It is patterns which are inherited*" (p. 437). In a sweeping summary ranging from the atomic to the organism, Sherbon described the reality of "the pattern" of environmentally moderated inheritance, concluding with a quote by evolutionary physiologist "G.T.W. Patrick in *What is the Mind?:* Evolution seems like formative forces struggling for expression" (p. 437). An exemplar of neural development in

*Ambystoma*⁸³ was used to extend the somatic physiological development to the brain and neurological systems of higher organisms, to show that “all development has a ‘forward reference’, quite separate from and independent of environmental influence” (p. 438).

Thus the complexities of behavior are due to genetics, environment and the physiological patterns of embryonic development that reacted to and with both. These mechanisms acted upon the individual to produce a cumulative record of past experience and adjustment to each new experience, throughout the organism’s life; in much the same way that the progress of science and human knowledge is based on everything that came before, with constant adjustments to the experiences provided by new experiments and critical research. Sherbon concluded this episode with a summary that could apply to individual human development and future racial evolution, or to the accretion of disciplines and melded interdisciplinary sciences in the modern university, or to other complex artifices of progressive civilization built-up over generations:

Every new adjustment comes out of the total experience as registered in structural counterparts by means of the correlation of growth and excitation in the developing neurones. Or in terms of ‘Gestalt’ the particular adjustment is related to a total experience as ‘a quality upon the ground’... Man is more than the sum of his reflexes, instincts and immediate reactions of all sorts. He is all these plus his creative potential for the future.” Dr. Coghill, being a psychologist as well as a biologist, sees clearly the relation between the new biology and the new psychology. In a later issue of *Eugenics* the discussion of this relatedness will be continued. (p. 438)

Alongside this heavy scientific and philosophical exposition, Sherbon presented the first eugenical comic-strip featured in *Eugenics* (p. 438). It was also used in popular displays by Mr. Evans, secretary for the Popular Education Committee and its very active agent of popular eugenics evangelization, as revealed in Figure 4-10k on page 41 of the image file.

Dr. Sherbon’s Popular Education returned to “The Pattern” in the December 1930 “Child Allowance Number” (pp. 475-477), with an introduction to Gestalt psychology and its relation to the patterns of inheritance and their implications for eugenics. Sherbon noted that Gestalt psychology “arose in Germany” but “is rapidly gaining support in America” (p. 475). She enlisted Professor R.M. Ogden of Cornell from his *Psychology and Education* (1926), to give “a very clear account of the Gestalt theory” (p. 475) and how it related to behavior, education and the physiological gradients and genetical patterns in organisms. See the excerpt in Figure 4-10l on page 42 of the image file.

⁸³ The same enigmatic amphibian that H.S. Jennings used to great effect in *Prometheus* to illustrate the sometimes radical effects of environment on genetic expression, along with its alter ego, the *Axolotl* or ‘Mexican walking-fish.’

Next, Sherbon progressed to Kurt Koffka, master of the Gestalt, for the extension of these ideas to early childhood development and education, which was Sherbon's professional wheelhouse. She provided another string of quotes plucked from Koffka's recently translated *The Growth of Mind* (1927), to confirm the startling unity between the germinal, cellular, neurological and organismal. She gave her blessing to the increasing unity and synergy between these specialist disciplines that have grown together like separate organs into a harmonious and sentient whole: "It is beside the purpose of this paper to discuss psychological theory, but it is significant that the newer genetic and neurological, and psychological researches seem to be merging into a common field and discovering a common unity" (p. 475). This is analogous to the memetic expression of a harmonious union of disciplines in the well-known 'Eugenics Tree' poster dating back to the 1921 International Congress of Eugenics, which kick-started the AES, and ultimately gave birth to its Popular Education Committee and *Eugenics* (See the theological explanation of this powerful memeplex in the "Eugenics and the Church" section of Appendix IV).

Sherbon adduced additional evidence of this unifying trend from the "Yale Psycho-Clinic" (p. 475) as reported by Dr. Arnold Gesell in two of his professional works, who quoted "the supreme genetic law" circa 1928-29 as being:

All present growth hinges on past growth. Growth is not a simple function neatly determined by X units of inheritance plus Y units of environment, but is an historical complex which reflects at every stage the past which it incorporates. In other words we are led astray by an artificial dualism of heredity and environment if it blinds us to the fact that growth is a continuous self-conditioning process, rather than a drama controlled, *ex machina*, by two forces. (p. 475)

After additional quotes from Gesell on the patterns of growth and education in the child-adult, Sherbon turned to the new theory of "emergent Evolution" as "promulgated by C. Lloyd Morgan" (1923) who "envisions cosmic evolutionary gradients" (p. 476). After providing another paragraph of assembled quotations as narrative from Morgan, Sherbon attached the quoted endorsement of H. S. Jennings, along with a caution about extra-experimental doctrinism, from his post-*Prometheus* journal article (1927), as excerpted with its source in Figure 4-10m on page 42 of the image file.

With this endorsement from one of the main American heralds of hereditary-eugenical reform, Sherbon again took the stage to present her own conclusions, after five months of columns devoted to eugenic scholarship for the common man. Her conclusions were not surprising if one considers the social memes behind the genetic truths, patterns of growth and experience, neuronal associations and sociological gradients that she had been popularizing for her layman readers. Her take-away

messages were typical of the rising generation of eugenicists and also helped to reveal the “limit of traditional [eugenic] reform” (Barkan, 1992, pp. 177-227) from its Nordacist forebear. Sherbon’s conclusions and call to action for all eugenic disciples are presented in Figure 4-10n on page 42 of the image file. Not content with a short conclusion and fervent plea for cooperation by all those professionals whose research or service interests are subsumed under the umbrella of eugenics, Sherbon also posted a revised list of the “tasks of eugenics for the immediate future” (p. 477), as shown in Figure 4-10o on page 43 of the image file.

Many people today (including myself) might commend the historical Dr. Sherbon for her noble efforts towards eugenic reform, popularization of the latest research in the natural and social sciences, her firm commitment to better education in the sciences throughout the formal education system, and even enlisting families in scientific research programs. But at the tail-end of her three-page column, she added two atavistic excerpts from recent periodicals on the subject of eugenics.

These two vignettes, rather than being sterling examples of reform eugenics or exemplars of a new professional humility in the light of new theories and empirical evidence, take us right back to the ideological biases of Galton, Charles Davenport and Henry Goddard. They betray the same dogma of Anglo-Saxon or Nordic superiority, the class and gender biases of the movement, and a continued Puritanism and social-Darwinism among the wealthy or professional classes in regards to their social-inferiors and the flotsam of American society. They also exposed an undiminished faith in scientific and technological progress to banish all the evils of modern society with the ardent application of more of the same that got us here, rather than a real commitment to reform and cooperation with those who rejected the hardline hereditarian paradigm. Thus as the *Journal of Race Betterment* neared its own extinction in the depressed economic ecosystem of 1930s America, it continued to heap scorn on the victims and innocent bystanders of the biggest Capitalist bust-cycle to date. Both excerpts are shown in their entirety in Figure 4-10p on page 43 of the image file.

Lest one think these two excerpts are simple ideological backsliding or falling-off the reform eugenics wagon, Sherbon would return in the first issue of the New Year with further evidence that there was still plenty of fight left in the hardline traditional eugenics camp, and proof that their cherished dogma and theories remained more-or-less intact in the face of mounting criticism from their avowed scientific and political opponents. But with only two issues left before *Eugenics* suspended operations and retooled into *People Magazine*, Sherbon and her colleagues were running out of time to persuade the progressive public, before they too felt the sting of economic failure, or at least such a restriction of discretionary funds and leisure time that they abandoned casual involvement in the eugenics movement in favour of mere personal and familial preservation.

The Present Status: Rebutting Raymond Pearl and his latest Attack on American Eugenics

Having finished her extensive series on popularizing the latest scientific research in the service of eugenics in December, Sherbon returned in January 1931 with another three-page Popular Education column. This episode was almost entirely devoted to rumour control and rebutting Dr. Raymond Pearl's latest attack on eugenics as it was currently promulgated and practiced in America. Entitled "The Present Status" (pp. 37-39), the column discussed the new prejudice attached to the term "propaganda" (p. 37), as well as its current pedagogical value and the associated hazards for popular education in eugenics. Sherbon began by retracing her recent steps in popularizing the latest research on heredity, development, psychology and sociology for the masses, and then introduced the latest antagonist to the popular eugenics gospel (Dr. Raymond Pearl), and his recent published attacks on eugenics, as documented in Figure 4-10q on page 44 of the image file.

After she had parried Pearl's propagandist thrust, Sherbon remounted her horse and led a spirited defense of eugenics education and popularization in the face of mounting complexities and doubt over the earlier simplifications of Galton and his immediate successors. She swallowed her pride and gave Pearl credit for reminding eugenicists of the need for solid research to underpin any derived theories and conclusions. But she excused the shortcomings of the eugenics establishment as common to all new scientific fields that have started from scratch, without the benefit of a mature corpus of scientific laws and precise mathematical formulations. This echoed Galton's (1904) appeal to the British Sociological Society that man had a duty to investigate human heredity and apply that knowledge for racial betterment, as soon as it becomes practicable, rather than waiting for all the kinks and details to be worked-out. See Figure 4-10r on page 45 of the image file for the blow-by-blow progression from defending against Pearl's charges to pushing back in a rhetorical offensive where necessity served as the mother of progress.

She then attempted to recruit geneticists like Pearl and other experts, to help rather than hinder the ongoing dissemination of established eugenic concepts and translating the new research to the great unwashed, and for help training new generations of lay-teachers for the vital task:

Dr. Pearl and other genetic scientists will have to do what the medical scientists, psychologists, psychiatrists, and all the other kinds of scientists are doing; patiently giving out facts, facts, facts; train teachers to the masses by instruction rather than by destruction attack; and give the "people" time to understand and apply new and usually revolutionary discoveries. This takes time, for one reason, because the new so often uproots... the old. We expect people to jump backward through the hoop at the crack of the laboratory whip. (p. 38)

Sherbon argued that much had already been accomplished in eugenic science in a short time, and it would be foolish to throw out the baby for some contamination in the bathwater. She noted that the advent of popular translations of post-War genetic research had only just begun, hailing Jennings' *Prometheus* (1926) as a pioneer in this field, only five short years ago, as documented in Figure 4-10s on page 45 of the image file. Sherbon offered Pearl a partially extended olive-branch, if he would but provide some constructive assistance, rather than just unrelenting pessimism.

She also used an old military metaphor of the “general on horseback arriving at the crest of the hill before the infantry on foot” (p. 39) to sum up Pearl’s criticism of eugenics’ education past. The chairwoman pledged to fulfill her duties as a leading eugenics disciple, along with Mr. Evans and the rest of the Popular Education Committee, with a renewed fervor and earnestness, commensurate with the great and immediate need for expanded eugenics evangelization of the masses. She also collectively avowed their pure state of heart, free from malice and “ulterior motive”:

The Committee on Popular Education believes that never was the obligation to translate science into conduct with such earnestness and fidelity as may be given to human judgment, so great, so imperative as it is at the present time when genetic science has given to the world new but complicated and difficult rules of the game which make new values inevitable. The Committee also insists that it is unconscious of “ulterior motive” in attempting to assist in said translation. (p. 39)

While readers of this dissertation might admire Sherbon’s contrition for the prior sins of oversimplification and inaccuracies in popular eugenic propaganda, as well as her recommitment to a reformed practice with higher standards of accountability and sensitivity; her column again ended with a betrayal of those noble sentiments and a relapse into business-as-usual. As had been done in previous episodes, her column again served as a promoter for other popular eugenical prophets. In this case it was the eugenics lectures and radio sermons of “Professor H.G. Baker, professor of biology at Dakota Wesleyan University at Mitchell, South Dakota” (p. 39). It began with a brief recap of Baker’s recent educational itinerary, which included a Halloween 1930 radio address on “Human Biology” on “station KBDA” (p. 39) and supplied a few future dates for the yearning faithful. It ended with a one-column collection of greatest-hits quotes from Professor Baker’s radio address, which almost completely undid Sherbon’s previous messaging and actually personified Raymond Pearl’s criticisms better than he could have done without naming names. See the entire quoted section in Figure 4-10t on page 45 of the image file. Whether it was her choice, or the editor of *Eugenics*’ decision to include these quoted passages in this section is not explicit, but I prefer to think Sherbon would have realized the rather obvious *volte-face*.

As *Eugenics* headed into its final issue, before its one-time retooling as *People* magazine, Dr. Sherbon had one last mission. This was the consolidation and fulfillment of all that she and her Popular Education Committee had attempted up to this point: organizing a coherent final program for eugenics evangelization to an optimistically-projected growing flock of enthusiasts in America. This was to be the seed from which a better future would grow from the planted memes of a committed cabal and elite professional cadre, to bloom into a wholesale demographic shift and widely-adopted national passion. That the journal would soon be fatally pruned and the movement wither, rather than grow and reproduce prolifically, was still a mystery to be revealed; but it seems that the end was as unexpected as the proverbial thief in the night. Had Sherbon and *Eugenics* been more in tune with the changing popular *Zeitgeist*, they may have glimpsed the approaching light at the end of the tunnel, and realized they were on a crash-course to oblivion. The “End of *Eugenics*” section of this chapter will detail the final denouement of *Eugenics* struggle for existence.

A Final Program for Population Education in *Eugenics*' Swan-song Issue

Although Dr. Sherbon, in consultation with secretary S. Wayne Evans and the Popular Education Committee, had already presented a couple of tentative outlines for a comprehensive program for evangelizing eugenics to the masses; it was not until the final (appropriately untitled) issue of *Eugenics* that the ‘ultimate program’ for popular eugenics education was published. The contents page for this last *Eugenics* issue (February 1931) is presented in Figure 4-10u on page 46 of the image file.

Some of these contents have already been examined and others will be covered subsequently in other sections of this chapter and in Appendix IV, so let us proceed to the last one-page installment of Popular Education and its penultimate Program for Popular Education (p. 77). This program was only ever superseded in the AES-sponsored book *Organized Eugenics*, edited by committee secretary S. Wayne Evans and published later in 1931, before the AES budget constricted sharply in response to dwindling economic fortunes. This economic setback was to be followed by the sudden and sharp environmentalist turn that came with F. D. Roosevelt’s arrival in late 1932 as a populist President and Popularizer-in-Chief of the euthenically-oriented social reforms of his ‘New Deal.’

Sherbon’s “A Program” (p. 77) was a brief but ambitious plan, first to expand formal eugenics education down to junior high school, and it offered the possibility that the youth of today could be the eugenic standard bearers of tomorrow and evangelize society at large from below. Sherbon’s salutary credits and initial optimistic preamble are presented in Figure 4-10v on page 47 of the image file. It is a modernist echo of the oft-cited Jesuit declaration of the vital importance for the early

catechesis and moral formation of youth; in this case to produce life-long eugenic disciples. The rest of the page enumerated five major thrusts and schemes for eugenics education. Some of these ideas had been presented before in previous iterations of Sherbon's column: in the March 1930 issue (p. 115, 116) that had proposed an initial scheme for family-based eugenics education and painted in broad-strokes as "A Tentative Program" in the May 1930 issue (p. 199).

This final issue condensed the previous plans and programs into a five-pronged approach that built upon what had already been done and made available; but it also anticipated new outreach projects and media-based instructional techniques. Having previously studied the development of the new Cold War-era science curricula spurred-on by the Soviet launch of Sputnik, these ambitious plans of the AES mirrored in miniature the large-scale BSCS and PSSC programs for American biology and physics education to ensure American brain-power for the Cold War (Kohlman, 2008 Master's thesis). That the AES's plans were largely trumped by the crumbling economic fortunes of the nation, should not be interpreted as a sudden collapse of the hereditarian viewpoint or a traumatic loss of interest in eugenics; but more the threat-response of a large segment of society for basic preservation, with a consequent contraction in discretionary income of all but the wealthiest and the most well-insulated groups in America. The five-point plan presented by Sherbon served as the last words for both Popular Education and her contributions to *Eugenics*. It is excerpted in Figure 4-10w on page 48 of the image file.

This ended the Popular Education mission in *Eugenics* for evangelizing the mainstream masses. But this effort was soon to be surpassed elsewhere, once Nazi Germany made eugenics a State-science and extended its instruction throughout the Party apparatus, to the rapidly growing SS establishment and into the medical-professional-scientific communities. Although the eugenics and race-hygiene movements in Germany quickly eclipsed its American antecedents, and forcefully exposed the racial biases of hardline American eugenics better than any critic like Raymond Pearl could have hoped for; it is a testament to the momentum and staying power of the eugenics memplex that these memes persisted in the American *Zeitgeist* long afterwards, and continued to influence education for decades, long after the Depression begat the decline.

Having studied this department of *Eugenics* as an explicit popular education meme-vehicle, the next major section of this chapter will examine the parallel attempts at formal education through the fervent efforts of America's colleges and universities, in the "Eugenical Institutions" department. It is worth noting beforehand that the emphasis on popular education far surpassed efforts to promote formal education in *Eugenics*. It has particular relevance to part b of my research question.

EUGENICAL INSTITUTIONS

One of the more clear and consistent efforts by *Eugenics* to profile and promote formal eugenics education in America was the semi-regular Eugenic Institutions department, as introduced earlier in the “Birthday Number” section of this chapter. This column also served as professional education for the academics and professionals that were intrinsic to the movement. This was one area where *Eugenics* served the professional community as a traditional academic journal might, with a special focus on educating the next generation of eugenic disciples.

Many of the entries (like that for the University of Wisconsin in December, 1928), profiled the eugenical teaching and research of AES insiders, and promoted the formal eugenics education being offered at the featured institution. Sympathetic high school teachers could have used these profiles to direct promising students in their civic-biology classes to post-secondary studies in eugenics or related science or social-science programs. Other entries introduced new or established institutions devoted to eugenical research at the graduate level, funded by private endowments or philanthropic societies. These institutes were either intrinsic to a research university (like the Bussey Institution of Harvard from the November 1928 edition, as excerpted in Figure 4-11a), or a separate entity, like the Eugenics record Office (*ERO*) in the debut issue. See Figure 4-11a on page 49 of the image file for an example of a eugenically-repurposed graduate research facility and one of its directors.

A complete description of each installment of this department would make for a thick chapter in itself, so this section provides but a representative sampling. Almost the full gamut of colleges and universities were eventually profiled: from large, privately-endowed universities like Harvard, to State colleges like Michigan, to even smaller religious or agricultural colleges. After covering some of the more prestigious private universities, which offered opportunities for graduate students in eugenics research as well as publicizing their involved faculty members, there was a break of six months and then the series continued sporadically with several portraits of smaller, more obscure colleges.

One notable later inclusion was Connecticut College (June, 1930), a small ecclesiastical women’s college. This school was an early pioneer of the later popular trend of providing eugenics and social-hygiene education for women (Currel and Cogdell, 2006), and the only one to profile a female professor (she wrote the article herself). The table in Figure 4-11b on the next page provides a listing of featured institutions and a few details for each issue of *Eugenics* that contained this semi-regular formal eugenics education column.

Issue	Featured Institution and Location	Featured Directors, Faculty, or Researchers	Eugenics Educ. Offered?
Oct, 1928	E.R.O. at Cold Spring Harbor (N.Y.)	C.B. Davenport†, H. Laughlin†	Summer, Grad.
Nov, 1928	Bussey Institution at Harvard (Mass.)	W.M. Castle*, E.M East*	Sr. Und. & Grad.
Dec, 1928	Wisconsin University	L.J. Cole*, M.F. Guyer*	C.B. & Und.
Jan, 1929	Brown University (Providence, R.I.)	H.E. Walter*, J.W. Wilson	C.B., Und.
Feb, 1929	Brush Foundation (Ohio)	T. Wingate Todd (contributor)	None (Philanthropy)
Mar, 1929	Human Betterment Foundation (Cal.)	E.S. Gosney†, P.M. Popenoe*	Popular & Lobbying
May, 1929	University of Vermont	H.F. Perkins†	Und. & Grad.
June, 1929	Kansas State Agricultural College	H.L. Ibsen, R.K. Nabours*	C.B., Und.
July, 1929	New York University	R.M. Binder, H.P. Fairchild†	Und., Grad.
Aug, 1929	University of Pittsburgh (Penn.)	R.H. Johnson†, P.W. Whiting†	Und., Grad.
Sept, 1929	University of California	S.J. Holmes†, C.A. Kofoid*	Und., Grad.
Mar, 1930	Iowa State College	E.W. Lindstrom	C.B., Genetics
Apr, 1930	Family Relations Institute (Calif.)	E.S. Gosney†, P.M. Popenoe*	Popular, Grad.
June, 1930	Connecticut College	Prof. Pauline H. Dederer	C.B., Und.
July, 1930	Berea College (Kentucky)	J.W. Hatcher, J.S. Bangson	C.B., Und.
Sept. 1930	Michigan State College	H.R. Hunt†	C.B., Und.
Nov, 1930	Albion College (Michigan)	A.M. Chickering, W.W. White	C.B., Und.
Feb, 1931	Antioch College (Ohio)	O.L. Inman, C.A. Nosker	C.B., Und.

† Indicates a member of the executive of the AES, ERA, or Galton Society. The list here includes several presidents of these organizations. In addition, P.W. Whiting (Pittsburgh) and H.R. Hunt (Michigan State) were members of the AES Committee on Formal Education (see Figure 4-11f later in this section).

* Indicates members of the Advisory Council of the AES. Most of these men taught at the larger, private research universities, or were directors of the very few non-teaching institutions that were featured.

C.B. – Civic Biology (general introductory biology with a chapter or two on genetics and eugenics)
Many of the graduate education opportunities were as research assistants for studies by faculty, especially in the areas of sociology and human geography, or as lab assistants in biology and genetics departments.

Figure 4-11b: Table showing featured institutions, personnel and any eugenics instruction offered by the respective institution. Note the predominance of North-Eastern Seaboard locations, particularly in the early issues, mirroring the focal-point of American eugenics as a whole, as well as the great prevalence of Nordic names among the faculty members listed.

Each installment of Eugenical Institutions usually included a picture of the building or complex that offered instruction or laboratory space for eugenics or related courses, as exemplified in Figure 4-11c on page 50 of the image file. In addition, pictures of the involved faculty or lead researchers at the featured institution were often provided, as well as a brief mention of any eugenics textbooks or popular works they might have authored. Refer to Figure 4-11d on page 51 of the image file for vignettes of two icons of formal eugenics education, including one of the most prolific authors of civic-biology and eugenics textbooks. As noted in the table above, these vignettes often featured members of the AES executive and advisory council, again illustrating the small but influential cabal of academics and society icons that organized and ran the eugenics movement; what Spiro (2009) characterized as the “Interlocking Directorate of Eugenics” (p. 181, and list on page 394).

The formal education offerings profiled in Eugenic Institutions were described only in very general terms, rarely giving any specific details of the curricula or listing any particular textbooks used. In the case of Michael F. Guyer at Wisconsin, his *Being Well Born* (1916) and other later titles supplied a good deal of the market for the collegiate or freshman-level Civic Biology courses that introduced students to eugenics. At the junior and senior undergraduate level, University of Pittsburgh professor Roswell Johnson's *Applied Eugenics* (1918, co-written with Paul Popenoe), served as the main text for many dedicated college courses in human heredity and eugenics.

According to a 1926 AES survey of American post-secondary institutions, "very few courses were entirely devoted to the study of eugenics. The subject was usually dealt with in conjunction with other work" (Evans, 1931, p. 15). College courses devoted as little as two lectures and as much as one month to the topic of eugenics. Only a minority of biology-based eugenics offerings included a laboratory component, usually as part of genetics courses that touched upon human genetics and heredity in their final sections. This lack of empirical lab work was a cause for concern by the Popular Education Committee (see list of members in Figure 4-11f on next page). These experts recommended in a 1928 report that courses in human genetics and eugenics should include a substantial laboratory component to put the courses on a firm research footing and reinforce the eugenical fine-points derived from lectures and text materials, as shown in Figure 4-11e below:

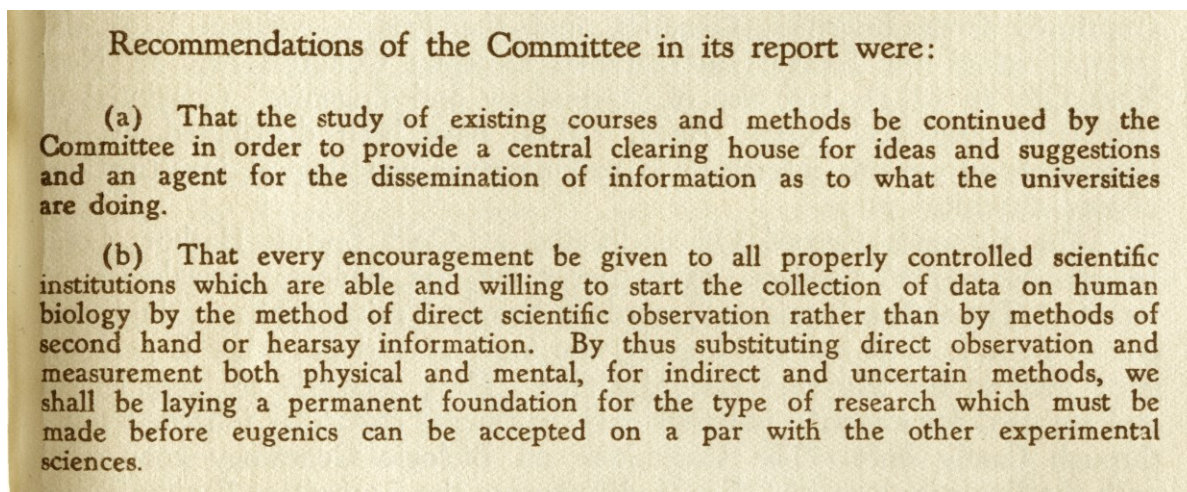


Figure 4-11e: Two recommendations by the Committee on Formal Education of the AES dealing with college or university courses for human heredity and eugenics. The first was partially satisfied by the Eugenic Institutions series. The second recommendation was more problematic, even at the collegiate level. It was really only ever implemented at the graduate level for those students who served as research assistants to faculty working on eugenic surveys or as summer field researchers for the ERO. (Evans, 1931, p. 15)

Even less coverage was devoted to graduate education, and it seems that few if any universities offered any actual graduate courses in eugenics. But advanced students had numerous opportunities to act as research assistants for field studies, surveys, or as lab or teaching assistants for eugenically themed general biology, genetics, or zoology courses at the undergraduate level. One of the more active areas for graduate studies was in sociology, or applied social-work courses, and here the field was open to eugenically motivated female students. Young women could get intensive training and actual field experience in conducting eugenic or ethnological surveys at the ERO's summer courses, and then carry on this research at their home institution. A good example of this was the brief description provided in the coverage of Henry H. Perkin's eugenic surveys in Vermont, which employed his graduate students in sociology to conduct the field work and compile the data (May, 1929, pp. 14-17). Had the Great Depression not intervened to depress the movement and constrict student enrollments, there is every reason to believe eugenics could have been a growing concern at both elite universities and more humble institutions that catered to a dominant WASP student-body.

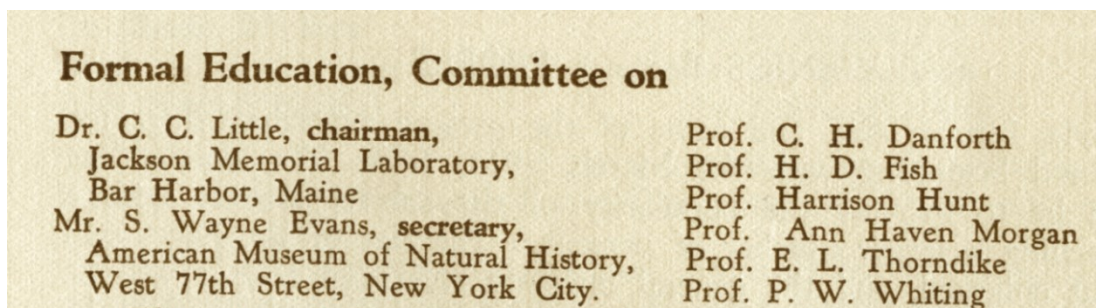


Figure 4-11f: A list of the members of the AES Formal Education Committee (Evans, 1931, p. 14). This included professors Hunt (Pittsburgh) and Whiting (Michigan State), as profiled in *Eugenical Institutions*. Note the one female member (a descendant of financial magnate J.P. Morgan and a zoology professor at Mount Holyoke College), listed right above psychology and curriculum expert Edward L. Thorndike, of Columbia Teacher's College fame. All were members of the AES board of directors, or the advisory council. The committee was chaired by 1928-29 AES President C.C. Little, author of the "Eugenics and Education" lead article in the debut issue of *Eugenics*. The outstanding credentials of this group signify the importance of formal education in the movement.

It is also worthwhile to note that Catholic colleges and universities operating at the time did not offer eugenics courses and were rather hostile to human genetics and biological heredity in general, thus none were profiled. In fact, most appearances of Catholic academics (or clerics) in the journal were as critics in a few of the *Eugenics*' Symposia, and their participation in the textual discussion was usually rather dismissive of eugenics. The only exception was a German academic and Jesuit Priest, Joseph Mayer. His pro-eugenics feature article "Eugenics in Catholic Literature" (v3n2, pp. 43-51) is profiled in the "Eugenics and the Church" section of Appendix IV (pp. 30-33).

Few feature articles over the run of the journal-magazine dealt with college education in eugenics in any more than a tangential manner, but there was one notable exception that explored how to capture the eugenic attention of college students, in order to increase the number of eugenic disciples for the future, and to bring new blood into the movement. This in-depth article is explored in the section of Appendix IV profiling three exemplary *Eugenics*-education feature articles, in this case representing formal eugenics education.

There is no doubt that formal education played second-fiddle to popular education in the journal and this would have been even more marked in *People* magazine, had it survived beyond the debut issue (see the “End of *Eugenics*” section at the end of this chapter). The prevalent memes in this regular department stressed the scientific qualifications of the faculty and the academic-professional legitimacy they lent to the movement; as experts for the eugenical education of the next generation of ‘American thoroughbreds.’

It is also notable to see the uptake of formal eugenics education into the social sciences from its genesis in the biological sciences and genetics, a shift that provided more exposure of eugenics to female students at the time. It was in the social sciences that the memes of WASP ‘race-suicide’ and the dutiful procreation required to prevent it found a larger female audience. This grounding also provided a pedagogical foundation for the sort of eugenic-euthenic blend of home-economics and social-hygiene education that flowered later in the 1930s and 1940s, and provided much impetus to the post-War baby-boom (Currel and Cogdell, 2006). This shift in eugenics education from the biological sciences to the social sciences could be seen as a further reflection or popularization of ‘Reform Eugenics’ (Kevles, 1985). The interaction of eugenics education and the social sciences, especially for female students, is explained and illustrated in the feature article “How to Interest College Students in Eugenics,” in the aforementioned section of Appendix IV.

This presentation will now switch to the key journal departments of Immigration Restriction and Legislation, with a focus on the professional and political education functions of *Eugenics*. It is here where we will see a much more polished precursor of the racial-religious wedge-politics that the Trump Presidential campaign and Brexit Referendum crudely replicated in 2016. This section will help reveal why Trump’s ‘unprecedented’ campaign and electoral victory, makes this subject-matter *matter* again. Contrary to the talking-heads and political pundits on the cable news shows, we will see that Donald Trump’s campaign and similar recent phenomena across the West were *not* unprecedented, and why the recurring memes of racial eugenics will still matter for some time to come.

IMMIGRATION

BY ROBERT DE C. WARD

AND

LEGISLATION

BY ROSWELL H. JOHNSON

Of all the educational efforts of *Eugenics* to promote the various components of the AES agenda, the Immigration and Legislation departments came closest to serving as professional education and supporting political advocacy or lobbying functions for the core-base of the movement. These efforts were led by some of the most senior stalwarts of the American eugenics establishment, including Madison Grant and Roswell Johnson; and they also propelled Harvard climatology professor Robert DeCourcy Ward (1867-1931) and future U.S. Federal Attorney Francis H. Kinnicutt to senior roles within the eugenics movement. Although discussion of issues related to legislation and immigration restriction were pervasive in *Eugenics*, they were not usually presented as part of an overt *popular* educational program, but more of an inside-agenda for the committed base. There were fewer attempts to cater to the casual reader, or explain the complicated issues involved in simple layman terms, unlike Popular Education, Eugenics and the Church, or the Symposium.

Instead, these two regular columns were intended primarily to coordinate, inform, motivate and recruit the committed cadre of interested academics, influential professionals, and connected gentry who could grease the political wheels and further the AES legislative agenda, including further tightening of immigration restriction efforts. The editorial for the November 1928 issue contained the excerpt shown in Figure 4-12a on page 52 of the image file, praising the quality and impeccable credentials of the editors of the journal's regular departments.

It may be useful here to introduce Robert DeCourcy Ward, first editor of the Immigration department. The *Eugenics' Who's Who* for the first issues introduced Ward as editor of the department and Professor of Climatology at Harvard University, but he was also a co-founder of the American Immigration Restriction League in 1894 (Spiro, 2009). He was a decorated veteran of 30 years in the restrictionist movement, and a close associate of Madison Grant, Henry Fairfield Osborn, and the other Galtonian elite. A descendent of American aristocrats in Boston, even boasting a pedigree connected to the "Aristogenic Merrill Family" (v1n3, pp. 29-30) on his mother's side, Ward was an active lobbyist for restriction and for eugenics in general, in Society circles in Boston, New York, and on the national scene.

The first issue of *Eugenics*, coming just before the 1928 Presidential election, did not have a Legislation column, but Immigration was on deck to deliver an analysis of the two main political party's positions in regards to further tightening of immigration restrictions, and the future implementation of the National Origins provision (see later in this section), which had been delayed for two years already. The decision to endorse a particular party would be called into question in a letter to the editor in a subsequent issue (December, 1928), but by then it was a moot point. Herbert Hoover extended the GOP's winning-streak to three terms and became the last Republican president until Eisenhower won in 1952, after four straight terms by Democrats.⁸⁴ The column is reproduced in Figure 4-8l on page 54 of the image file, as covered in the previous section for "The Birthday Number." This edition of Immigration, coming before any feature articles or introductory columns, was probably the most accessible for the layman or casual reader. Although the AES's endorsement for Hoover and the GOP is quite cautious, a reader later took the journal to task for their apparent partisan stance. But both previous and later experience would support the AES's logic, as the Republicans were more amenable to the immigration restriction agenda.

Although Madison Grant remained the chairman and prime-mover of the AES Immigration Committee and the Galton Society, he had only one major appearance in *Eugenics*, as a panelist for a symposium on immigration restriction (covered later in this section). Ward, as the first Immigration editor, also never authored any major pieces in *Eugenics*, and would soon be replaced as editor, while he embarked on extensive foreign tours and never returned to the journal. He died in November 1931, six months after *Eugenics* ceased publication.

Ward's replacement was of a similar pedigree, but different profession and expertise. Francis H. Kinnicutt was a lawyer specializing in immigration matters. He was an ardent lobbyist for non-Nordic restriction, a close associate of Madison Grant and Ward, and later became a U.S. Federal Attorney dealing with these issues (Spiro, 2009). Before becoming Immigration editor in early 1929, Kinnicutt had already served for several years on Grant's various Immigration committees, under the umbrella of various eugenics organizations that culminated in the incorporation of the AES. He had testified at House and Senate meetings on immigration restriction measures going back to the first Emergency Quota legislation, passed in 1921. The *Who's Who* bio-brief for Francis Kinnicutt from January 1929 (inside back-cover) is excerpted in Figure 4-12b on page 52 of the image file.

⁸⁴ Anyone beyond a certain age, on hearing the name Herbert Hoover, will probably flash-back to the old "All in the Family" series, with Archie and Edith Bunker belting-out the theme-song "Happy Days are Here Again," harkening back to the 'golden-era' of America, before the "Welfare State", and when "men were men and 'goils' were goils."

Eugenics’ devoted the November 1928 “Election Number” to the promotion of eugenics issues in the campaign. It included a feature article on “Presidential Pedigrees” (p. 3, 4) by A.E. Wiggam; showing some of the great chief executives of the past as eugenic exemplars for emulation. The November symposium dealt with “The Heredity of the Candidates: Does it Prove Eugenicists Wrong?” (p. 20, 21). The panel included the Republican vice-presidential candidate Senator Charles Curtis, and the Democrat challenger to Herbert Hoover, Alfred E. Smith (a Catholic and four-time Governor of New York State). Neither candidate came out as a firebrand for eugenics or the hereditarian cause, instead playing it safe with short, inoffensive remarks that better reflected the old cliché (an alternative term for a popular meme) of the American Dream and the ‘self-made man,’ pulling himself up by his bootstraps. The other experts on the power panel included AES insiders Wiggam, Ellsworth Huntington, and Leon F. Whitney. The Republican ticket under Hoover (a prominent Quaker and former cabinet Secretary under Taft and Coolidge) swept the nation, only losing seven States; six in the deep South and Massachusetts. See the excerpted sections of this hereditarian-environmental debate of political winners and losers in Figures 4-12c and 4-12d on pages 53, 54 of the image file. While the candidates waffled on the environmental-hereditarian divide, the AES insiders on the panel were much more explicit in their expressed worldviews, and fully endorsed the AES party-line on Nordic or WASP superiority and exalted their place as the “Builders of America” (Huntington and Whitney, 1928 – see *Eugenics*’ Book Club offerings in Figure 4-2b on page 6 of the image file). The Hoover administration was not as supportive of the AES’s immigration restriction agenda as the previous Taft or Coolidge regimes, but it did deliver on the final passage of the National Origins clause of the Johnson-Reed Immigration Restriction Act of 1924. This landmark legislation will be covered in detail later in this section.

In addition to these election-themed features, the November edition included one-page columns for Immigration and Legislation, both essentially condensed annual reports from the last general meeting of the AES. They presented broad political agendas and summaries of recent action to highlight the immigration and legislative programs that the AES and its allies were pushing at the end of the decade, one that had already brought the most substantial eugenic measures that any nation had yet achieved. In addition to the Restriction Act being enacted; the 1926 *Buck v Bell* Supreme Court decision set the legal precedent for States to enact compulsory sterilization legislation. As it turned out, these political successes were the high-water mark of the American movement, according to Spiro (2009). After the Depression hit, it became more difficult to whip-up the same degree of fervor for additional restriction measures or tighter legislative control to enforce marginal cases not already covered by the earlier broad brush-strokes.

Beginning with Immigration, editor Robert DeCourcy Ward presented the “Fourth Report of the Committee on Selective Immigration” for the AES (p. 54); the first such report since the official incorporation of the society from its embryonic precursors. In addition to the proposed national agenda for lobbying and legislation efforts, it lists the august members of this high-level committee. Having watched Donald Trump’s rise in the GOP primaries, based in large part on his disparaging remarks about Muslims, Mexican immigration and other illegals, it is fascinating to see a carefully formulated agenda for similar measures, with no attempt to preserve ‘political correctness.’ The lack of political correctness also endeared Trump’s supporters to his primary slogan “Make America Great Again,” but even he was not as explicit in his racial pronouncements. See Figure 4-12e on the page 55 of the image file for a full exposition of the AES’s Immigration Program.

American ‘political junkies’ will see numerous common themes and memes from this report in Republican/Tea Party election platforms, or news sound-bites from recent campaigns, going back at least to the Reagan Revolution. The recent political controversy in Canada over temporary foreign workers, including from Mexico and the Philippines (both particular concerns for American eugenicists in the interwar period) is another reminder of the same memetic forces. While these pre-Trump racial policies relied on coded or camouflaged analogs (aka dog-whistles) to the same kinds of sentiments, this 1928 transmission of the AES agenda was ‘in the clear.’ That current immigration restriction demands are still closely tied to economic downturns and ongoing attempts by large employers to obtain cheap labour, is another recapitulation of the recurring memes exposed here. It also belies any significant degree of acquired cultural progress or sophistication (a neo-Lamarckian form of memetic heredity?) in the intervening century. So although history never repeats itself in exactly the same way, it certainly rhymes memetically and symbolically.

The careful reader may have noted University of Pittsburgh professor Roswell Johnson (from Eugenic Institutions) in the list of Immigration Committee members. Johnson was persuaded to become editor of the Legislation department (see later in this section), also doing triple-duty as the new Chair of the AES Legislative Committee. But for the November issue, his name did not appear in the debut of the *Eugenics* Legislation department; instead the page was filled with a summary of the State and Federal legislative programs of the AES, from the latest annual meeting, as reproduced in its entirety in Figure 4-12f on page 56 of the image file.

The State-level agenda dominates the overall program, and the italicized heading at the top makes the first reference in the journal to the loose network of State committees of the AES. These formed a second tier to the national leadership, and included such people as C. M. Goethe of the Southern California section. Goethe would be featured in several later articles on immigration issues

in the Golden State, as detailed later in this section. These state committees were also enlisted for lobbying efforts with municipal officials or State representatives and senators, and were critical to accomplishing items on the AES agenda, or applying more local coercion when they were blocked.

Subsequent columns, feature articles and symposium forums would expand upon this this agenda, some of which have already been presented or referenced in previous sections of this chapter; and hopefully seeing them in point form here will put those individual cases into a larger context. Note that many of the enumerated points deal with marriage restrictions as a way of enhancing desired, or barring undesired procreation. Others deal with divorce (as a way to release ‘normal’ partners from a ‘dysgenic’ union), crime and punishment, as well as sterilization and contraception. Note that agenda item 10 (on contraception materials and devices) advocates for its availability only for “married patients” (p. 29). Contrast this rather conservative stance with *To-day and To-morrow* authors like C. P. Blacker (*Birth Control and the State*, 1926), Dora Russell (*Hypatia*, 1925), or Norman Haire (*Hymen*, 1928), who proposed State-funded contraceptive advice and materials for all women, but especially the poor and unfit. Today’s reader will realize that much of this agenda was accomplished by the end of World War II, if not sooner, and yet we continue to see similar controversies in recent decades, or in specific ethnic/religious communities. Much of the ongoing debate is over the later extensions of this progressive-era agenda to the non-married, such as underage teens in schools; as well as the addition of abortion and genetic counseling/testing services, or sexual morality issues that were unimaginable at the time, such as LGBTQ rights.

The First “Immigration Number”

The first *Eugenics* issue of 1929 was devoted to immigration issues, and set the tone for future special editions on this or related subjects, such as the subsequent ‘Census’ issue. 1929 was the apex for the coverage of immigration issues, as will be explained later. The revealing contents page for the Immigration Number is excerpted in Figure 4-12g on page 57 of the image file. Before turning to the actual contents of this issue, let us see if the presence of an “interlocking directorate of eugenics” or a cabal for “scientific racism” (Spiro, 2009)⁸⁵ can be discerned from the bio-briefs in the issue’s *Eugenics*’ Who’s Who, as represented in Figure 4-12h on page 58 of the image file for Chapter IV.

⁸⁵ The relevant pages in Spiro (2009) are Appendix C (p. 394), and D (p. 395). All the contributors for this issue are accounted for, with the exception of Birth Regulation guest-editor Louise Stevens Bryant, one-time contributor Rabbi Newman, advocating for the ‘New Immigrants’ (in this case Eastern-European Jews); and social-worker H.G. Wagner warning about a dysgenic “Hill Family,” an early exemplar of *Eugenics*’ series of ‘White Trash’ exposés. Would the casual reader of 1929 (or even 2017) be able to spot any elite cabal or Nordacist conspiracy, without the advantage of Spiro’s recent scholarship?

The first section of this special issue that many readers would turn to, after checking the contents, is the *Eugenics*' Symposium. As mentioned before, it contains the only major appearance of Madison Grant in the journal: *the* central insider and driving force in organized American eugenics and the chief exponent of Nordic Nativism (Spiro, 2009). Grant's response was given the lion's share of the space for the feature, another indication of his central position as behind-the-scenes director of American eugenics. His extended response was essentially the official dogma of the AES, almost until his death in 1937, after a debilitating chronic disease (much like his mentor Teddy Roosevelt and their close friend H.F. Osborn), as revealed in Figure 4-12i on page 59, and continued in Figures 4-12j and 4-12k on pages 60 and 61, respectively. The other panelists followed his lead.

Next to be considered here, is this first Immigration issue's Editorial page (p. 34). While the editorial was often unsigned, in this special edition "R. DeC. W." contributed "The Melting Pot" (which was a common memplex for rhetorical attack by Madison Grant in the 1920s and early 30s). Although the concept had been sold with great success by many pundits (see later article in this section by Rabbi Newman), the Galtonians who forged the AES policy on immigration attacked the neo-Lamarckian concept of the Melting Pot in every forum imaginable, and used almost as many arguments and justifications for their opposition, as there are roots in the 'Eugenics Tree.' Ward's wisdom from the secular pulpit would make a fine Eugenic Sermon (see "Eugenics and the Church" section of Appendix IV) and would likely receive a high score for its literary and homiletic merit (perhaps Ward inherited some preaching unit-factor(s) from the Merrill's on his mother's side). Ward's editorial sermon is reproduced in Figure 4-12l on page 62 of the image file.

Immigration Statistics Bolster the Overarching Narrative of Dire Racial Threats to America

Having introduced some of the issues under consideration, and having heard from the primary personalities within the AES and the journal's leadership on the immigration issue, this presentation will now turn to the lead feature article, written by the chief bureaucrat in charge of administering the Federal Immigration Service, James J. Davis, Secretary of Labor for Republican administrations since 1924. Davis opens this special edition with the "Story of the Year in Immigration" (pp. 3-5) and the opening page is excerpted in Figure 4-12m on page 63 of the image file.

Davis provides immigration statistics for 1928 that are worth paying attention to. Immigration is one of relatively few issues in the journal in which Canada was regularly mentioned explicitly. As a predominantly Anglo-Saxon Protestant country (excepting for our then-small Aboriginal, and then-booming French-Canadian Catholic populations), immigrants from Canada were seen as a choice

lot, both racially and because they were already partially assimilated into American culture and ideals. If we used an organ-donation metaphor, WASPs from Canada would be the fraternal-twin donor to the American recipient, matched closer than any except identical twins. The metaphor also works on a memetic level, as evidenced by G.S. Godwin's *Columbia* (1928) from the *To-day and To-morrow* series, where he predicted a union with the United States. Figure 4-12n on page 64 of the image file shows the relevant immigration data from the two book-end neighbors, versus all Europe for 1928. Davis was also forthcoming with updates in future issues, but until he left his post as the immigration czar and Secretary of Labor, his support for the racial basis of immigration restriction was couched in safe terms and insider code, such as distinguishing immigrants from predominantly WASP Northern Ireland, versus the Catholic 'Bretons' (a racial-anthropology term) of the "Irish Free State."

Equally interesting in this discussion of immigration, especially considering Donald Trump's like-meme campaign themes regarding 'Building the Wall' and his proposed 'Deportation Force,' is Davis's extensive treatment of the "deportation of undesirable aliens" (p. 4). Reading almost like an annual report to shareholders, Davis devotes almost a full page enumerating the numbers of deportations and voluntary returns to nation of origin since he first took office. Note that although immigration from Canada leads Mexico by a substantial margin, deportations *to* Mexico lead those to Canada by a similar relative margin. This imbalance or flip-flop in immigration versus deportation from the two neighbors is not overtly addressed, and certainly not in racial terms. The subsequent feature article by C. M. Goethe would fill-in the memetic blanks in quite explicit terms, and its author can claim much of the credit for that comparative imbalance through his tireless leadership, ardent advocacy and lobbying, and prodigious popular education efforts in the journal. It is to that author, educator and leader that we will turn to next, after a final tidbit from Secretary Davis, which comes as close to an expression of his personal views as anything else in the article, without crossing the line to explicit scientific racism, shown in Figure 4-12o on page 64 of the image file.

The Influx of 'Mexican Amerinds' into California

From this generalized "Story of Immigration" as a whole, the Immigration Number then turned to a very specific racial threat, that of "The Influx of Mexican Amerinds" (pp. 6-9) into California and the other Southern-border states, in an alarmist feature article by C. M. Goethe. As president of the Southern California chapter of the AES, Goethe was keenly concerned with immigration from South of the border, as well as the deportation of illegals. He also penned a letter to the editor in the same issue (p. 37) dealing with another plank of the AES Immigration Committee, that of using the

Federal Census to collect accurate racial information on all U.S. citizens and recent immigrants. Goethe reported that lobbying efforts with federal politicians in his home State on this issue had so far failed to impress sufficiently for legislative action.

Goethe's feature article, like Davis' lead, included numerous statistics, though not so intensive or well massaged. What is more remarkable is the explicit racial language and Nordacist ideology, as can be plainly seen in the excerpted opening page in Figure 4-12p on page 65 of the image file. The article begins with a maudlin morality play to engage the reader, replete with racial villains and unwitting victims who were naïve to the dangers posed by Mexicans of aboriginal descent. Goethe artfully weaves the distinction between the "white Castilian Mexican" of pure Spanish descent versus the "peon of Amerind (American Indian) blood" (p. 6) into the narrative of his cautionary-tale, using the same kind of innuendo connecting dire disease epidemics to Amerind peons as the Nazi's would later use between Jews, Lice and Typhus, as shown in Figure 4-12q on page 64 of the image file.

After exposing the imminent danger posed by these Mexican Amerinds, Goethe retraced the steps of the first Nordic settlers in the California Gold Rush of 1849, who established mining camps and the ramshackle towns that serviced them, often with place names from back East. These original Nordic settlers and workers were soon replaced by "successive invasions" of non-Nordic newcomers: the "Irish, Sicilians, Slavonians" who replaced the original WASP Americans, Germans and Swedes; as wages dropped and the lure of quick riches was replaced by the long-haul slog of industrial mining methods, so that "each group displaced its predecessors" (p. 8).

At the end of this sequence came the wave of peon Mexican Amerinds, from various border towns and states. Goethe presented vignettes of several of these poor migrant families, refuse from the jails and barrios of Northern Mexico; who arrived in the miserable mining camps and shantytowns and established a precarious niche and a support-base for a growing stream of "squaws" (p. 7), children, and extended relatives coming to exploit the relative riches and high wages compared to slim-pickings back home. Goethe provided rich ethnographic data on a pathetic selection of these mixed-race peon families, and narrated the kinds of 'dodges' and criminal activities they used to eke out a meagre existence and a marginal habitation in shabby huts, as shown in Figure 4-12r on page 66 of the image file. The new immigrants relied heavily on the community chest of local charities to survive and breed yet more offspring. He describes the "high cost" (p. 8) of this "cheap labor" to the local communities and State services, who essentially subsidized these 'outsiders' to the detriment of their own citizens. A partial meme-map for Goethe's Nordacist-grounded anti-Mestizo article is presented as Figure 4-12s on the next page, with a number of expressed meme-clusters and sample memes from the article.

Goethe also presented empirical data to back-up his ethnological narratives, though he neglects to provide the source of his data; but it presumably comes from the avid volunteers his Immigration Study Commission. Like a Latino-precursor to the *Grapes of Wrath*, Goethe describes a microcosm of the influx from the South into California, and its dire economic, social and racial impact on future American civilization in the region, almost like a *Passing of the Great Race* in miniature. The shocking and sobering conclusion to Goethe's article is excerpted in Figure 4-12t on page 66 of the image file.

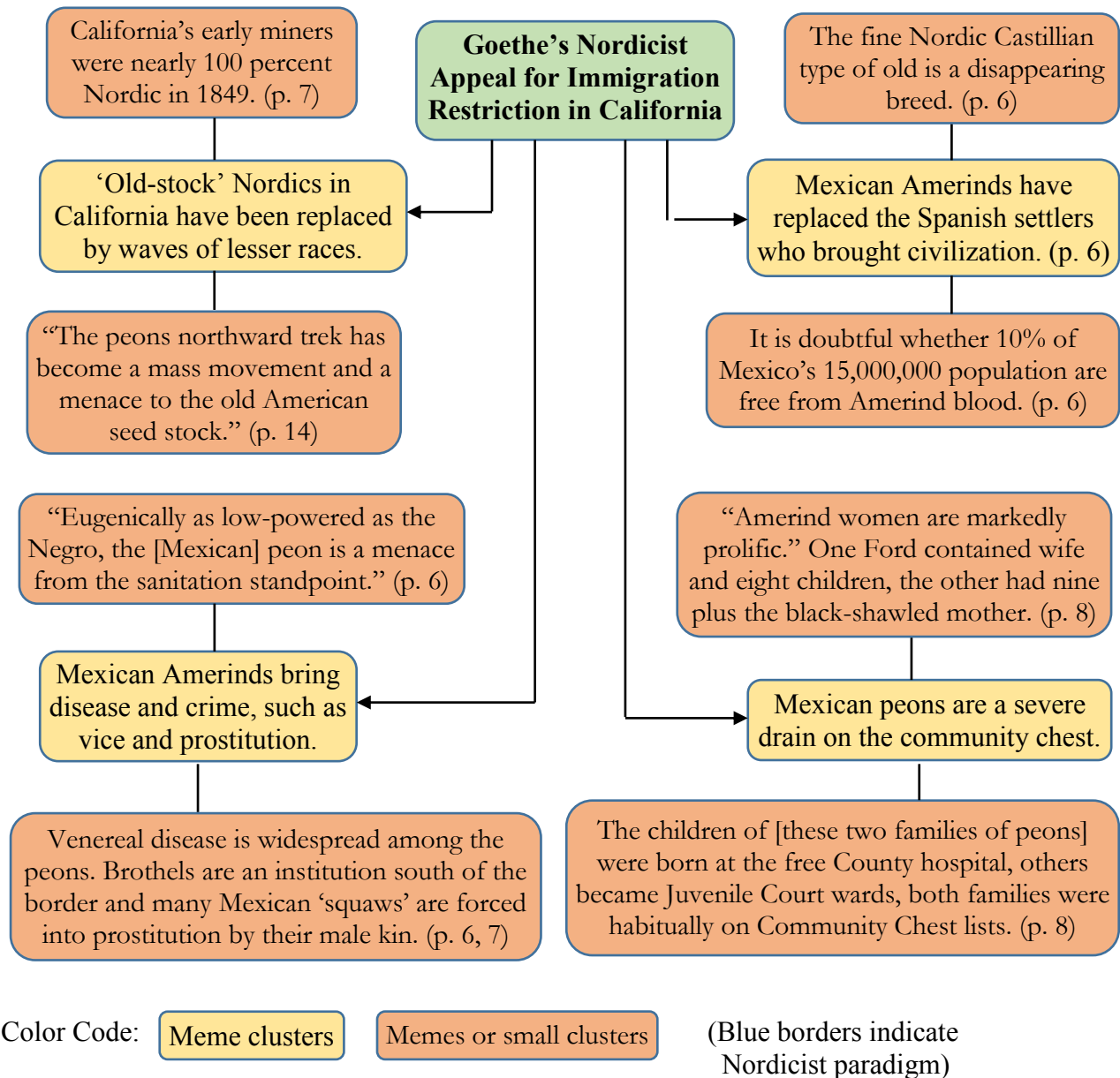


Figure 4-13s: A partial meme-map of the Nordacist-Nativist memes in C.M. Goethe's cautionary tale about the influx of illegal Mexican Amerinds into California.

The Threat of Race Suicide Part II: The Fecundity of Immigrant Women

Having investigated this racial menace threatening the southern frontier from an ethnological standpoint, we will now turn to another California stalwart of the AES, the almost omnipresent Paul Popenoe. Although it is out of the actual page-order, Popenoe's feature article on "The Fecundity of Immigrant Women" (pp. 23-26) will be considered next, as its subject memes and political messaging are so complementary to Goethe's efforts. Popenoe, as profiled in previous sections, had already appeared and was to appear again in future issues of *Eugenics*, across a variety of departments and subjects. Here, he added to the statistical doom and gloom threatening race-suicide of Nordic America at the hands of an influx of other races with their overwhelming differential fecundity, in a more scholarly version of Goethe's racial warning and political call-to arms. Complete with copious statistics and data tables, Popenoe foretold the trend to extinction of the founding American racial groups as they continued to fail to reproduce their own numbers, while the more recent non-Nordic immigrant women were producing families that would result in staggering exponential growth if their numbers continued to grow unchecked by contraception or cultural assimilation. The opening page is reproduced in Figure 4-12u on page 67 of the image file.

Popenoe took comfort from the fact that infant mortality was higher among immigrant groups, except for the Jewish race, which was even lower than the "native white" Americans (p. 23, 24). He presented mortality rates per 1000 births broken down by national/racial origin, based on the 1920 Census, including the highly fecund "French-Canadians," as shown in Figure 4-12v on page 68 of the image file. Popenoe admitted that the second generation of non-WASP immigrants also showed a decrease in average family size, but still remained higher than the old-stock Americans whose conservation was the prime motive for immigration restriction. He summarized these demographic factors in a pair of data tables, as copied in Figure 4-12w, on page 68 of the image file.

But Popenoe offered hope that with continued restriction measures, especially the adoption of the delayed National Origins provision and with the widespread provision of contraception to the 'new immigrant' communities, the proportion of WASPs in the population could be stabilized so that no further major dilution would occur. He also pointed out that the 'new immigration' has not actually increased the net rate of population growth, only displaced it from the old-stock Nordics of yore to the new arrivals of recent decades, in the same way that Goethe had described in California since the Gold Rush. Thus, nationally at least, the overall situation was not so much a case of the "*Passing of the Great Race*" but a slow and steady decline, now hopefully to be halted and approaching a steady equilibrium. With the adoption of the National Origins clause in July 1929 (more on this later), Nordic immigration would again increase proportionally.

Popenoe summed-up the overall situation of the racial balance in America, including a flat or even declining Negro population, and offered hope that with continued adjustments to the racial balance being admitted to the country, America would be able to absorb and assimilate non-Nordic immigrants with relative ease and without undue social friction or further harm to the “old white Colonial stock” (p. 26) that founded the nation and had made it great. Popenoe’s enumerated summary is excerpted in Figure 4-12y on page 69 of the image file.

The Ongoing Battle Against non-Nordic Immigration in Congress

The final feature article in the January 1929 “Immigration Number” picked-up where Popenoe’s research paper left-off, bridging the rather narrow gap between the Immigration and Legislation portfolios. “Immigration in Congress” (pp. 27-29) marked the *Eugenics* debut of immigration lawyer and protégé of Madison Grant, Francis H. Kinnicutt, who would soon replace Robert DeCourcy Ward as the editor of the journal’s Immigration department. The opening page is excerpted in Figure 4-13a on page 70 of the image file, minus the footnotes.

Kinnicutt provided a recap of legislative action on the immigration front since the Great War, culminating in the passage of the Johnson-Reed Act of 1924 (see Figure 4-13b on page 71 of the image file for the Senate leader of this legislative duo), and he discussed the vigorous opposition from various ethnic groups and their elected champions in Congress to delay or defeat provisions of the new legislation, or to expand the quotas for nations or classes of immigrants. He then turned to the “immigration issues over which a violent struggle seems likely in the present session” (p. 28). The major concern was ongoing efforts by the ethnic lobby to “repeal the National Origins provision” (p. 28) which Kinnicutt believed would “come to head” early in the short session.

The main obstacle to its passage was fierce lobbying by supporters of the two source nations that benefited the most from the current quota system, Germany and the “Irish Free State” (p. 28). Under the oft-delayed clause, these countries would see their respective quotas reduced by roughly half, as previously noted by Madison Grant in the Symposium. Kinnicutt provided the exact figures for both nations, noting that because of the delay of the National Origins clause “There is a discrimination of nearly 100 per cent *against* the Anglo-Saxon elements in our population” (p. 29). Kinnicutt concluded by hailing the long-term racial-eugenic value of the National Origins plan, with input by Madison Grant, Harry Laughlin and other insiders of the AES, before mentioning the next target of the restrictionists, as previously stressed by C.M. Goethe. Kinnicutt’s conclusion and promise for subsequent legislative targets is excerpted in Figure 4-13c on page 71 of the image file.

The Minority Report in *Eugenics* makes a Case for the “New Immigrants”

Kinnicutt’s feature-article was the closing argument for ‘the prosecution’ in the first Immigration Number. It argued the case for further immigration restriction, based on national-racial origins, as presented by the AES insiders, primarily members of Madison Grant’s inner-circle, or what Spiro (2009) called the “interlocking directorate of scientific racism.” (p. 229, 395). However, there was one dissenting advocate of an alternate policy, like a lone voice crying in the wilderness. Right after C. M. Goethe’s dire warning of the racial threat posed by “Mexican Amerinds,” came a fervent appeal by Rabbi Louis I. Newman, the shepherd of the Congregation Emanu-El in San Francisco, just down the Pacific coast from Goethe in Sacramento (the Capital of the State of California). Newman’s article, “Immigrants and the New America” (pp. 10-15), could more historically appropriately have been titled “The New Immigrants and America.” The article was essentially a defense of the power and efficacy of the environmentalist memplex of the racial ‘melting pot’ and the overwhelming efficiency of cultural assimilation in modern America, a brand-name exemplar of the horizontal transmission of memes as elucidated by Dawkins, on a national scale.

As an exemplar of the ‘new immigrants’ (a code-word for non-Nordics, or any racial- religious group that was not represented in early America, before mass-immigration began in earnest during the 1830s or so), Rabbi Newman represented one of the out-groups that the AES was targeting. Newman lamented the resurgence of Nativism and “race-prejudice” in America after WW I. For Eastern European Jews in particular, there was also a resurgence of anti-Semitism at this time, as part of the first ‘Red Scare’ (Missner, 1985; Spiro, 2009). Many Jewish Communists or Socialist agitators were the target of a fear-driven pogrom against ‘Jewish-Bolshevism.’ The first page of Newman’s article, with a provocative call-out box promising a rapid and thorough assimilation of immigrants to American WASP culture, is reproduced in Figure 4-13d on page 72 of the image file.

After the persuasive metaphors and allegories of his introduction, Newman turned to some of the institutions in modern America that acted to exclude the new immigrants. Higher education was one arena that was particularly vexing to the growing Jewish intelligentsia, who found their access to academia blocked by a Blue-Blood wall of WASP protectionism in the elite Ivy-League universities of the Eastern Seaboard. Newman focused on this last bastion of WASP elitism as a pathological condition, which actually drove ethnic minorities to racial-social solidarity that defeated or delayed the process of cultural assimilation. Instead these minorities created their own political blocs and ethnic organizations, with the prime exemplar being the Jewish Defense League (JDL), which went on to become one of the most influential and well-funded ethnic lobby groups in America.

Newman contrasted the relative egalitarianism and assimilative power of public colleges and State universities, especially in the mid-West and far-West. These incorporated the children of the ‘new immigrants’ into the middle-class; versus the elite academic or religious-based “privately-endowed colleges” that were “hotbeds of anti-immigrant feeling” (p. 11), and who excluded non-WASP ethnic minorities in order to preserve “their special denominational or traditional character,” as shown in Figure 4-13e on page 73 of the image file.

While Newman tried to maintain a racially-neutral tone in his rhetoric to avoid any appearance of special-pleading for his own ethnic-religious group, he defaulted to the Jewish case whenever he mentioned specific examples. One example is particularly illustrative, referring to the self-defensive measures taken by “American Jewry” (p. 11) in the face of reactionary pressure from Nativists to the perceived Jewish involvement in ‘International Bolshevism’ in the period immediately following the Great War, during the first large-scale incarnation of the Red Scare:

When the agitation against American Jewry was at its height soon after the World War, the synagogues were crowded with worshippers; Jewish self-defense and anti-defamation groups flourished. American Jews were fearful that the very hatreds which they had left Europe to escape were pursuing them to the nation they loved. They grieved that the old libels were about to overtake their own children whom they had hoped here to shield and safeguard. Fear is a powerful factor in cementing national, racial and religious solidarity. Good will is an even more effective dissolving force. (p. 11)

Having discussed the effects of race-prejudice and exclusion of the new immigrants, Newman attempted to explain the motivations of the “old Brahmin stocks of the republic” (p. 11), in a subsection titled “Bewilderment.” He posited the reactionary Nativist policies were “due primarily to bewilderment at the increasing affluence and influence of immigrants and their children,” provoking a defensive reflex to fend-off competition and any decline in political influence and social-standing for the “aristocratic families” of the “old-time nuclei of traditional American civilization” (p. 11). This Nordacist defensive attitude is symbolized by the movie poster for D. W. Griffith’s “Birth of a Nation” (1915), in opposition to the playbill celebrating Israel Zangwill’s “The Melting Pot,” shown in Figure 4-13f on page 73 of the image file.

Newman detailed the fears and insecurities of WASP society being “overrun and obliterated” (p. 12) and explained these as being due to complacency and a loss of vigour. The traditional American values of hard-work and self-sacrifice had been replaced by an overwhelming desire for “leisure... luxury and play” (p. 12). Meanwhile, the newcomers had vigorously adopted these old values so that “they aspire to inherit... and master the destiny of the nation.” He again returned to

the irrational and costly “boycott” of Jews and other ethnic minorities in the “ultra-American universities” by “the blue-blood caste” in the forlorn “hope that [the boycott] can prevent the new generation of immigrant’s children from obtaining strategic positions of power” (p. 12).

He decried these attempts as inhospitable to “the mood of America” and doomed to fail as “Immigrant’s children are making the new America, whether we like it or not. Their energies cannot be dammed, their aspirations cannot be dimmed” (p. 12). Turning again to the subject and efficacy of assimilation in the melting-pot, Newman declared “not only assimilation, but absorption, is the tendency of the times” (p. 12), and he hailed the intermarriage between various racial-religious groups as the “acid-test of assimilation” and proof of its inevitability, again using waves of Jewish immigrants as an exemplar, as excerpted in Figure 4-13g on page 74 of the image file.

Next, Newman discussed the influence of youth and young professionals in changing societal attitudes and mores, as they take “control of the future into their own hands” and “forget the slogans” of their parent’s generation (p. 13). Adopting a Marxist position, Newman hailed “modern industrialism” as the great leveller of “all distinctions,” so that, in the new industrial society being created, the old language, culture and traditions of the ‘old country’ are being dismissed by the new immigrant youth of today, who “brush them aside heedlessly and impatiently” (p. 13).

In addition to the great leveller of modern industrialism, Newman also praised popular culture and especially competitive team-sports as being especially effective in cementing the disparate racial elements of middle-class America; with the cultural mosaic of names appearing on the backs of identical jerseys of the “All-American football team” (p. 13) as the ultimate metaphor for the inherent cohesiveness of the newly amalgamated alloy forged in the melting-pot. The beneficent effects of the new, secular and interdenominational community service organizations were also mentioned, which operated to form a “psychic homogeneity... which nothing can weaken” (p. 13). Together, these active memetic forces of cultural assimilation were sintering the raw material of a New America together and infusing it with an “insuperable magnetism,” so that if left to its own natural destiny, the “subconscious self-Americanization of immigrants and their children” would provide an “unanswerable rejoinder to the fears of immigration restrictionists” (p. 13).

Not surprisingly, given his heritage and chosen profession, Rabbi Newman offered religion as a safe outlet for the desire among old-stock Americans and other old-timers to maintain a remnant of racial-religious-cultural distinctiveness within a cohesive larger society. Again, he used his own faith to prove his points; before expanding his ethnic palette to include a rather extensive, illustrative and prophetic compendium of other religious groups in America, with a combination of hope and unspoken despair, as shown in Figure 4-13h on page 74 of the image file:

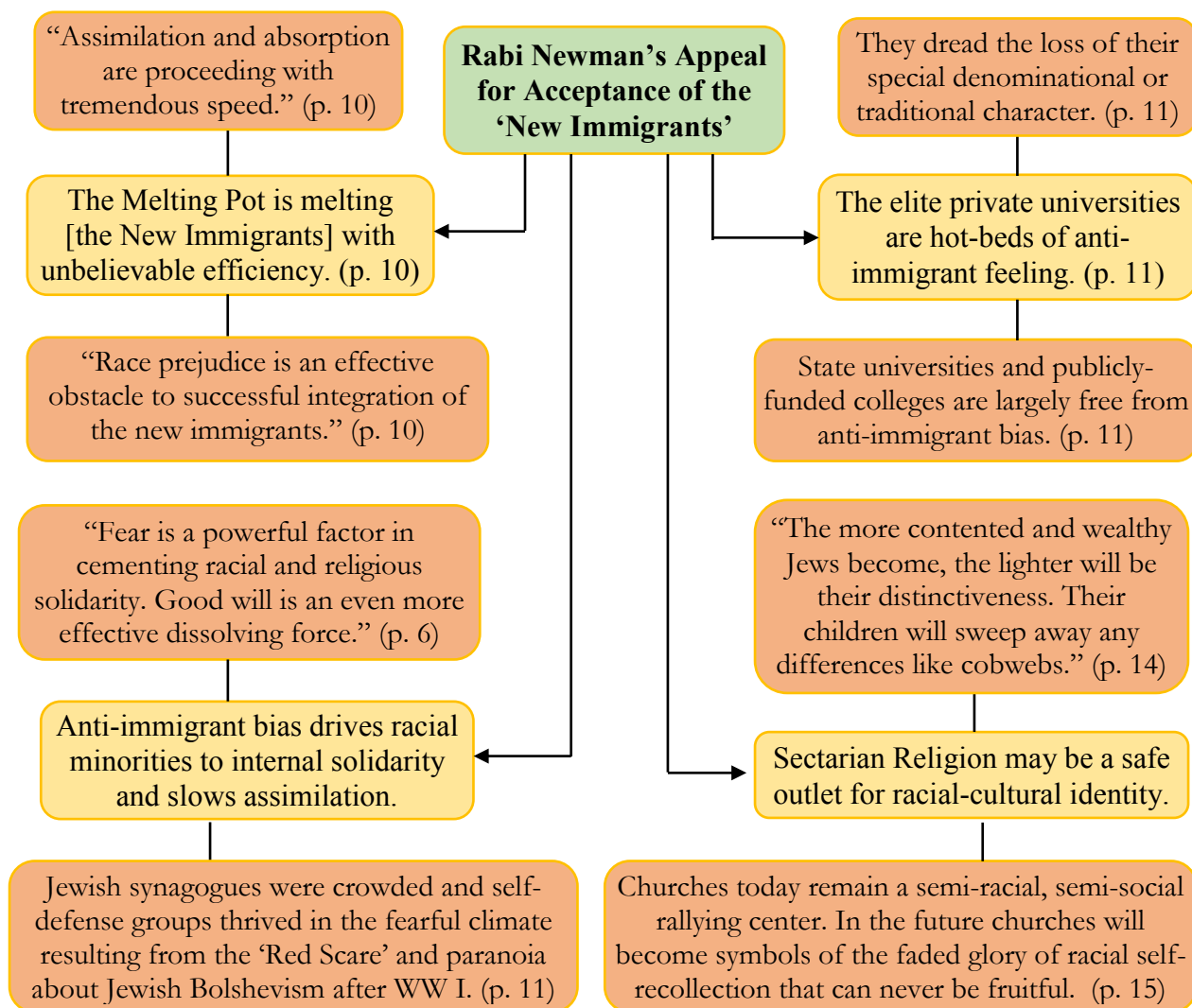
Included in the article are two, now famous photos from Ellis Island (courtesy of James Davis's Labor Dept.), though whether this is by Newman's choice or the editor's whim is not revealed. The first is copied here as Figure 4-13i on page 75 of the image file. Its inclusion here was prompted by another recent, now infamous photo that brought the ongoing issue of 'new immigration' and the plight of refugee's fleeing civil-war, sectarian hatred, cultural genocide, and Western-coalition bombing campaigns across the middle-East and North Africa to a stunned global audience. The photo of a dead Syrian boy washed-up on a Turkish beach injected the same kind of racial conflicts and exclusionary memes into our Federal election of 2015, as were played-out in the Presidential election of 1928 and documented in the pages of *Eugenics* until its final demise.⁸⁶

Rabbi Newman's grand finale began (in Figure 4-13j on page 76 of the image file) with an assurance of the inevitability of racial-religious assimilation in the Great American Melting Pot, personified by Ernest Bloch. A partial meme-map for Newman's expressed memes and assimilationist-environmentalist worldview is presented on the next page as Figure 4-13k. While his worldview does not enunciate a clear neo-Lamarckian standpoint, it represents a sort of naïve faith in the power of environment to transform populations over the course of just a few generations.

The sharp political debate over immigration and refugees in 2015-16, especially in Europe, and in Canada after the release of the infamous photo of the dead Syrian toddler washed-up on a Turkish beach, is again being played-out with similar arguments to this journal. Other reactions from conservative quarters in America, notoriously voiced by Steve Bannon and Donald Trump (Green, 2017) and by European ultra-Nationalist Parties, seem to counter Newman's assertions about the efficacy and inevitability of the democratic melting pot, and better reflect the fundamentalist arguments of the restrictionists in the Interwar years. One major difference is the ultimate bogeyman of 'Jewish-Bolshevism' has been replaced by 'Muslim Jihadists' and 'Radical Islamic Terrorists.'

⁸⁶ After reading many hundreds of comments about Syrian refugees on even mainstream Internet forums, even the most explicitly Nordacist-Nativist author in *Eugenics* showed a sophistication well beyond their ideological heirs in today's semi-anonymous cyberspace, even though their predominant political affiliation remains largely unchanged. It turns out race and religion are not quite so malleable and fragile as Newman espoused in 1929, even after many intervening decades of 'modern industrialism' that would make Marxists of Newman's time beam with pride.

Rabi Newman's Appeal for Faith in the Efficacy of the American Melting Pot



Color Code: Meme clusters Memes or small clusters (Yellow borders indicate environmentalist paradigm)

Figure 4-7k: A partial meme-map of the environmentalist memes and assimilationist worldview of Rabi Louis Newman in his tribute to the efficacy of the American Melting Pot, and the counter-productive effects of Nordic race-prejudice among the WASP majority.

Whatever the impact of Newman's passionate article on the hearts and minds of *Eugenics'* readers, it is worth noting that Jewish membership in the AES later increased significantly when the organization was rebuilt after World War II, and changed its mission away from the conservation of Nordics in America to other less racially-explicit agendas with a global reach (Osborn, 1968). Nonetheless, this article is worthy of inclusion as the sole departure from the Nordicist orientation

of the rest of the features and editorials on immigration. It could be considered a close memetic analogue of the feature article “Some Reasons for Jewish Excellence” (pp. 52-57) by Rabbi William Grossman, published in the second Religious Number (Feb. 1930), which was the obvious outlier to a flurry of articles on the relation of religion (Protestantism) to eugenics. This token-minority article and its dominant WASP rivals, is covered in the Eugenics and the Church section of Appendix IV.

After this specific focus on immigration and its restriction throughout most of the rest of the issue, it is curious there was no mention of the topic in Roswell Johnson’s one-page Legislation column at the tail-end of the issue (p. 40). Instead he presented disparate recaps of two other current events: the introduction of an initial Eugenic Sterilization Bill in New Zealand (at about the same time that Alberta enacted its first similar legislation); and an insider account of the passage of a State Law in Arkansas, banning the teaching of evolution in schools and colleges. The first expose, from the *Journal of the American Medical Association (JAMA)* for October 1928, came from the London correspondence to *JAMA*, reporting on developments in the Commonwealth. It is notable for the reliance the legislation placed on school administration to identify and select children who exhibited mental, physical or intellectual disabilities for further evaluation by trained medical personnel appointed by the Sterilization Board, as shown in Figure 4-13k on page 77 of the image file.

This ended the Immigration issue of January 1929. Although there would be additional related feature articles from time to time, and the regular Immigration department continued, the immigration restriction topic would never again so dominate future issues. The next few issues of *Eugenics* would pursue the final enactment of the National Origins provision of the Johnson-Reed Immigration Restriction Act, which will be documented here next.

Defending the National Origins Provisions and Racial Purity in America

After the Immigration Number had thoroughly explored this theme, the next issue of import to this file came in March 1929, with the “Census Number” (see table of contents in Figure 4-13m on page 77 of the image file). While few today would associate the Census with Eugenics, it was seen to be essential to the cause by the AES. Accurate census data was a prerequisite for preserving the WASP heritage of America from further dilution, and eugenicists saw it as way to further enhance the racial selection of immigrants, as well as providing an important avenue to deport illegal aliens that might be discovered through the process of enumeration. Eugenicists argued for compiling racial data for the whole population to serve as concrete evidence for their lobbying efforts and political action, such as through the Immigration Restriction League and other allied organizations. This political

mission was to be enabled by the new IBM tabulating machines that the Federal government was recruiting to aid in the task of efficiently enumerating and cataloguing the American population, which reduced the large army of clerks required, even while increasing the potential quantity and range of data collected in the census.

Mr. W. A. Plecker, author of the lead article “Race Mixture and the Next Census” (pp. 3-7), was typical of the hardline ideologues that wanted to have a reliable data-base of the racial type (and any ethnic mixture) of every citizen of the United States, and especially recent immigrants that were not of the Nordic type. Such a database would provide a baseline for ethnographic data, and provide a basis for judging the effectiveness of immigration restriction laws and other efforts going forward. Plecker was the long-time Registrar of the Bureau of Vital Statistics in Virginia, and he maintained an iron grip on the State bureau as well as its county registrars and other similar local agencies for over 40-years.⁸⁷

The Eugenic Record Office’s (ERO) Harry J. Laughlin presented “A Definite Eugenic Use for the Census” (pp. 8-10). Like Plecker, Laughlin pointed to the eugenical value of detailed records of the racial backgrounds for all recent immigrants. These immigrants, being white, would not be automatically detected as non-Nordics by old-stock Americans. This became especially important for their children, who once they grew up in America and became assimilated, might be otherwise undistinguishable to all but trained anthropologists and anthropometric-experts. Census records, on the other hand, could be used to classify the descendants, maintaining a record of their racial ancestry for future generations. These records could be used, for instance, by elite universities to discriminate against non-WASP applicants who might otherwise be acceptable for admission (as suspected by Rabbi Newman in the previous “Immigration Number”).

Like Plecker, Laughlin hailed the sorting and cataloguing potential of the new IBM electro-mechanical computers that used punched-cards to record various bits of pertinent information for all citizens. This new technology greatly reduced the huge army of clerks formerly required to compile the data, and expanded the amount of information stored in the database, as shown in Figure 4-13n, on page 78 of the image file.

⁸⁷ The full story of Plecker and his decades-long racial crusade in Virginia can be found in J. David Smith’s (1993) treatise on Southern-style racial eugenics in *The Eugenic Assault on America*. Plecker led a strict regime to maintain detailed racial records and enforce the so-called ‘color-line,’ against any light-skinned blacks and those emancipated slaves (known locally as ‘Ishies’) who had mixed with the local aboriginal populations in Virginia. Plecker suspected these groups were constantly trying to circumvent Virginia’s strict racial-segregation and anti-Miscegenation (race-mixing) laws, in the hope of being able to ‘pass for White.’

Immigration Restriction for the Common Man

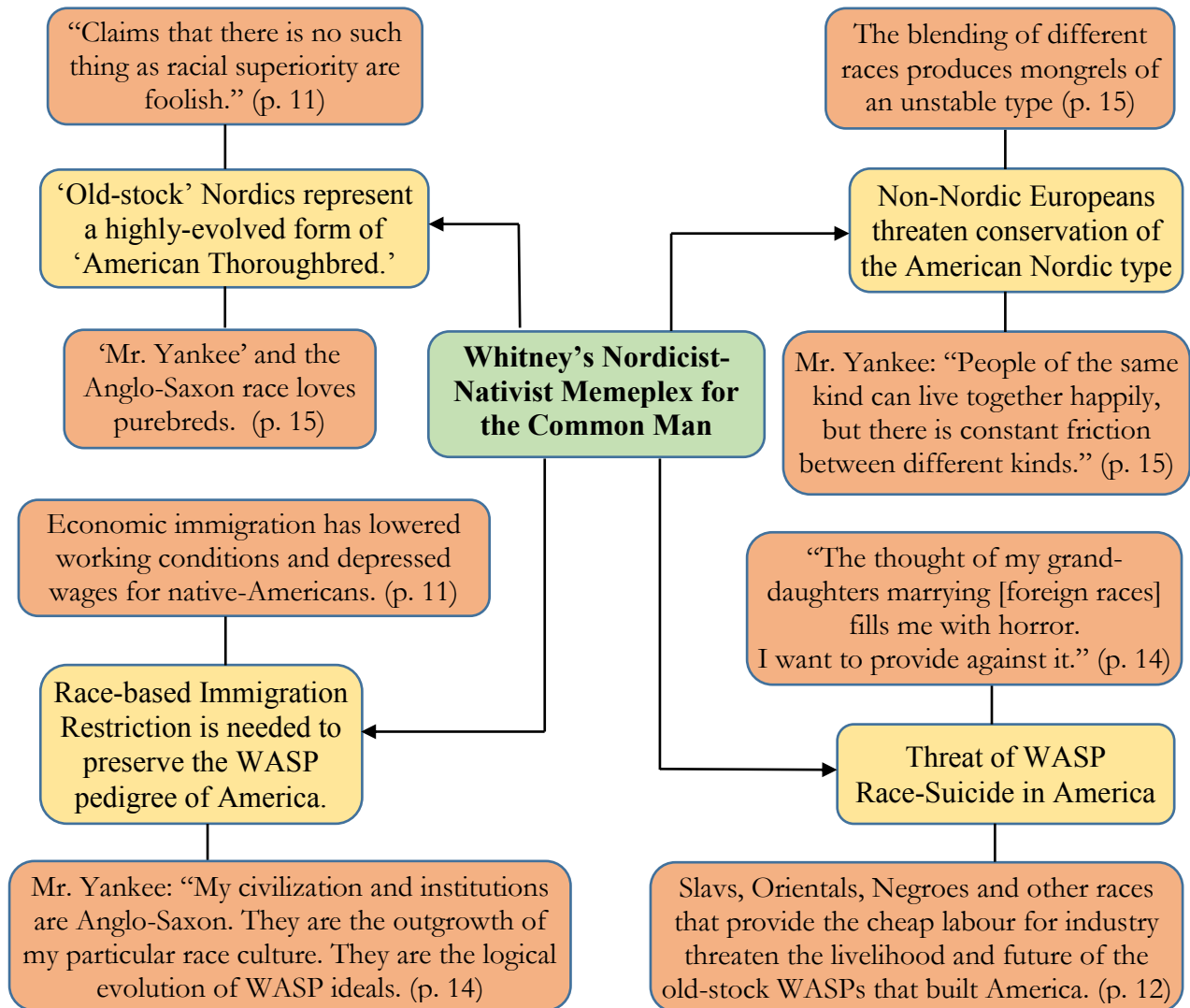
The final entry in this trio of thematic articles in the Census Issue, “Immigration from another Angle” (pp. 11-16) was written by Leon F. Whitney, executive secretary of the AES, introduced in previous sections of this chapter for his education outreach efforts. Of all the many articles written on the Immigration Restriction theme, Whitney’s article came the closest to being a primer on the subject for the common man, complete with numerous metaphors to farm-life and animal breeding.

Whitney’s article urged the government to consider the human population of America from a rational-scientific angle, equivalent to selecting the seed-stocks used by farmers to improve their crops, or the breeding stocks of ranchers to improve their herds. The racial backgrounds of the members of the U.S. Senate served as a microcosm of the entire population (see Figure 4-13o on page 78 of the image file), and he urged the nation’s leadership to apply the same scientific rigour to the problem of preserving this human potential as any progressive farmer would follow in planting seeds for their crops, or animal breeders for breeding their lines of purebred livestock. This article was probably the best example of a feature article on immigration restriction aimed at the common layman, rather than targeted at the long-converted choir of eugenic disciples.

Whitney presented a winding narrative about “Mr. Yankee,” an “old-stock” farmer in the Connecticut Valley, who lamented the ‘mongrelisation’ of America by the new non-Nordic immigrants from Eastern and Southern Europe, as well as the descendants of slaves and the ‘temporary foreign workers’ of his time (p. 12, 13). Whitney used contrasting photos of a group of recent immigrants, representing the “mongrels” (p. 14); versus a line of purebred workhorses, as memetic stand-ins for the old-stock Americans who built the nation. Figure 4-13p on page 79 of the image file shows one of these story-telling photographs, along with its instructive caption, following on the heels of the “Mongrels” (p. 14) section of Mr. Yankee’s commentary. Whitney explained that the proposals for the National Origins clause was actually a return to the long-standing policy of limiting non-Nordic immigrants to preserve the ‘old stock’ culture and democratic traditions, as shown in Figure 4-13q on page 79 of the image file. Any doubt as to the overarching racial message conveyed by strategic photos such as these, was dispelled in the final paragraph, recapitulating “The Pure-Bred Idea” (p. 16) as shown in Figure 4-13s on page 79 of the image file.

The main themes and sample memes presented in Whitney’s article to explain immigration restriction to the common man are illustrated in the meme-map below, as Figure 4-13r. Although his article is aimed at farmers and rural folks, this is not the naïve folk-eugenics of Fascist Italy (see last section in Chapter IV for a comparison), touting ‘blood and soil.’

Nordicist Memes in Whitney's Article on Immigration Restriction for the Common Man



Color Code:

Meme clusters

Memes or small clusters

(Blue borders indicate Nordicist paradigm)

Figure 4-13r: A partial meme-map of the Nordicist-Nativist memes and racial themes for the common man expressed in Whitney's populist article on Immigration Restriction (v3n3, pp. 11-16). This article was nearly unique in *Eugenics* in pitching the argument for immigration restriction to the working-class or common man, personified by Whitney as “Mr. Yankee.” Although Whitney uses rural imagery and farming motifs in the article, it encapsulates the true Nordicist paradigm and not the naïve folk eugenics of Eastern Europe (Turda & Weindling, 2007; Solonari, 2010) or in Fascist Italy as explicated in Dr. Polyzoides' article on Fascist eugenics featured in the lone issue of *People* magazine (Compare with the meme-map for ‘Fascist Eugenics’ in the last section of this chapter).

Together, these three feature articles in the Census Number served to buttress the immigration restriction theme of the prior Immigration Number, and offered a rational mechanism (racial composition statistics) to maintain the privilege and dominance of the old-stock WASP population. In the meantime, both Roswell Johnson's Legislation department and the Immigration department continued to inform *Eugenics*' readers, and instructed them how to help in the struggle to enact the National Origins provisions of the Johnson-Reed Immigration Restriction Act and block any further attempts to repeal or postpone this fundamental piece of legislation. Each month for the first half of 1929, *Eugenics* documented the political struggle between the restrictionists (supported by the governing Republicans) and those who wished to return to unrestricted immigration, or raise the quotas for non-Nordic nations if they could get enough sponsors for amendments in Congress.

Immigration Restriction as a Political Hot-Potato

The pro-restrictionist forces of the 1920s used similar arguments and rhetoric to today's right-wing ideologues in America, or in Canada by the Harper Conservatives' during the 2015 election campaign; proposing various laws designed to capitalize on the fear and loathing of Muslims by 'old-stock Canadians.' A fine example of this memetic signalling to the 'old-stock' base was one of the last Immigration columns by Robert DeCoursey Ward, appearing in the February 1929 issue, entitled "The American Policy" (p. 35). Ward argues that unrestricted immigration was an aberration of the American tradition of tightly restricting immigration, going back to the founding fathers.⁸⁸

Ward pointed to restrictionist arguments deployed and attitudes displayed by Washington, Jefferson and other stalwarts of the American Revolution. He reviewed the rising tide of American opinion that began back in the 1840s, with the rise of the Nativist Movement and its spread along the Eastern Seaboard in the 1880s, leading to the first legislation to block insane, criminal or other undesirable immigrants from Europe. Since those first restrictionist moves, America had become filled-up, economic opportunities for new immigrants had dried-up, and the jails, insane asylums, sanitariums, and other similar public institutions were "crowded with alien insane and alien feeble-minded" so that "our 'refuge' had become a penitentiary well filled with alien paupers and criminals" (p. 35). The most notable difference between Ward's rhetoric and Trump's notorious statements about 'Mexican rapists and drug dealers' or 'Radical Islamic Terrorists' was that the

⁸⁸ The 'Founding Fathers' attitudes to restricting foreign immigration to WASPs was also the subject of a full-length contemporary book by Madison Grant: *The Alien in our Midst, or selling our birthright for a mess of pottage: the written views of a number of Americans, (present and former) on immigrations and its results* (1930), published by the Galton Publishing Company (the same publisher as *Eugenics*).

primary target of the earlier restrictionist movement was mostly 'White people' from the southern and eastern margins of Europe. But if we substitute the labels used for these latter-day Judas Goats into the text of Ward's column, the rhetoric is entirely familiar to anyone who followed the debates, rallies, and political ads of 2015-16. Ward's closing paragraph, in Figure 4-13s on page 79 of the image file, could easily fit into one of Trump's rally speeches or Harper's dog-whistle remarks on 'barbaric cultural practices' or revocation of citizenship for terrorists.

The last sentence of this column is also interesting for its parallel with the ongoing issue over temporary foreign workers (TFWs); a more recent innovation for restricting immigration, while satisfying the periodic demand by business for more cheap labour. The recent scandal over TFWs in Canada, during a lingering recession, resulted in a backlash that hurt the establishment-side of the Harper government and underscored its intimate connections to the business lobby. In the end, the Conservative Party of Canada restricted the program in order to mollify the mounting popular opposition. So it was to be with Immigration in America, although not until the Depression sank-in.

The campaign to implement the National Origins provisions continued unabated in subsequent issues. Democrats who led the charge to further postpone or repeal the legislation were vilified, while the Republican defenders of restriction were lionized. These champions of old-stock Americans included Labour Secretary James Davis (R) and Senator David Reed (R), the Senate sponsor of the Johnson-Reed Act of 1924. Eugenicists received some much needed support from the U.S. Supreme Court, who in early 1929 struck-down an attempt to bypass restriction legislation by opening the 'back-door' to foreign-born immigrants entering America through Canada, and also denied yet another attempt to postpone the National Origins provisions for another year.

This epic struggle was documented in the May 1929 issue, which was also the *Eugenics* debut for Francis H. Kinnicutt as Immigration editor. The following month, Senator Reed's ongoing efforts to push for the enactment of National Origins were profiled, as reproduced in Figure 4-13t on page 80 of the image file. The column ended in a patriotic appeal to readers of the journal to get involved and voice their support for the restrictionist cause: by writing letters to their U.S. Senators, Senator Reed and informing the AES of their involvement by filling out the brief survey form and mailing it to the head office in Connecticut.

The culmination of all this wrangling and ideological-racial struggle was reported in a rare two-page editorial in the July 1929 issue (p. 35, 36), with guest-editor Francis H. Kinnicutt ("F.H.K.") hailing the final victory of the National Origins clause, as shown in its entirety in Figures 4-13u and 4-13v, on pages 81 and 82 of the image file. With the National Origins clause now enacted, this meant the annual immigration quotas had to mirror the gross composition of America by nationality

(still a close proxy for race at this time), as recorded by the U.S. Census and to be adjusted going forward to maintain this balance. There were still extra provisions for uniting families and various other special categories, but these also largely favoured the Nordic nations of North-West Europe. Kinnicutt's reportage included all the relevant news, brief background details, and the political-racial implications going forward. He included detailed statistics on quota adjustments and their eugenic import, provided by Senator Reed (R). If the detailed narrative was not convincing enough, the appended table at the end enumerated the current national origins and immigration statistics for the most significant nations of Europe under both the old quotas based on the 1890 Census, and the new National Origins provisions based on the most recent Census. Kinnicutt essentially reprises Madison Grant's earlier analysis and racial balance-sheet in the *Eugenics*' Symposium of the January 1929 Immigration issue, as presented earlier in this section.

With this victory, the die for American Immigration policy was cast for the next four decades, as the legislation was not fully repealed until 1965 (Engs, 2005, p. 126). There was a mass migration of refugees and displaced persons from Europe immediately following World War II; including a large influx of Jewish refugees coming in the aftermath of the Holocaust and the Nuremburg Trials. It was *these* international show-trials of the highest Nazi officials and their functionaries that first shone a spotlight on disturbing similarities between American eugenics of the Interwar Period, and the laws, decrees, policies and Final Solutions of the race-hygiene machinery of the Nazi regime. That there was so much intersection took decades to fully uncover, and in the meantime, entire generations of people have been born for who Eugenics and the Nuremburg Trials are but the flotsam of history in some undergraduate humanities or social science course, if that. My extended historical review and analysis will be read by a miniscule number of people, compared to the legions of Trump supporters, who hope to 'Make America Great Again.'

For any reader who disputes the meaning of Trump's (or Stephen Harper's) so-called 'dog-whistle' terms, a visit to any popular Internet-forum (I used *Yahoo Canada*) will quickly dispel any doubts. Just search for any story on Mexican illegals, Aboriginal peoples in Canada, Black protesters and rioters, Muslim refugees or immigrants, etc.; and then read through the voluminous comments section. You will rediscover almost every raw meme presented in *Eugenics*, as expressed by Madison Grant, Kinnicutt, Ward, or others; but with much more graphic language and cruder rhetoric. These memes have saturated the global meme-pool, and building new walls has become a definite growth-industry in the midst of current global economic stagnation and protectionist urges.

The National Origins clause's implementation would prove to be the last great victory of the immigration restrictionists. Although the AES and its allies continued to lobby Congress and the

Republican Party, there was to be no further major progress on this file until after the journal had been discontinued. The first and last issue of *People* had last-minute news of further reductions to immigration quotas, and proudly announced the spread of immigration restriction to Canada and other Commonwealth countries. This was shortly before the rise of the Nazi regime, but in plenty of time before the first waves of Jewish refugees from Germany and Austria were denied entry and sent back to their nation of embarkation. This is covered in the final section of this chapter, examining this literary one-off and ‘Hail-Mary-Pass’ for the survival of organized eugenics.

Ironically, Spiro (2009, pp. 328-338) hailed the passage of the National Origins clause of the Johnson-Reed Act as the beginning of the end for the American eugenics movement. After their nation’s borders and coastlines had been protected from the ‘Mongol Hordes at the Gates,’ the mainstream allies of the eugenics movement, like the American Legion and the other ‘patriotic organizations’ referred to by Senator Reed, drifted away from their coalition with the AES. This deflated their lobbying efforts, now increasingly seen as a fringe special-interest group even by the governing Republicans, rather than a politically powerful mainstream movement. This distancing began prior to the rise of the Nazis to power, and shortly before the nadir of the Great Depression. The growing marginalization of the movement from the favour of government will be highlighted in the “End of *Eugenics*” section. In the meantime, this presentation will shift its focus back to the Legislation department of *Eugenics* and its intrepid editor, Roswell H. Johnson.

Back on the Legislation Front with Roswell Johnson

While Immigration was a Federal matter, making high-powered lobbying rather efficient, most of the laws and issues covered by Roswell Johnson in his Legislation department were State matters, requiring a division of labour and more local action. Issues like eugenic segregation or sterilization legislation, facilities and appropriation budgets had already been decided and put into operation in many of the populated states of the Eastern Seaboard before *Eugenics* had begun publishing. It was here that the AES had large State chapters and active committees that could lobby State Legislatures and Senates. *Eugenics* published a full list of members by State, along with contact information for the chairman, in mid-1929 as a centerfold insert. The high-density Northeastern states dominated the list, with New York and Connecticut having as many members as all other states west of the Mississippi (minus California). With that kind of political clout, and easy access to ‘expert witnesses’ from the AES and ERO, most of these jurisdictions had already passed their significant eugenic legislation either just before or after World War I. The precedent setting United States Supreme

Court case of *Buck v. Bell* (1926), a ‘friendly’ test of Harry Laughlin’s ‘model sterilization law’ in the State of Virginia (he was also an expert witness at the trial) had already been decided in favour of the eugenicists, and it became a template for other states that wished to follow suit. Thus by the time Roswell Johnson began covering the Legislation beat in late 1928, the legislative action had already largely migrated to the Mid-West, South-West and the burgeoning Pacific-Northwest States.

Johnson rarely devoted a full page to a single topic, but more often combined news briefs of any pending or approved eugenic legislation in U.S. States or foreign jurisdictions (like his initial report on sterilization in New Zealand featured earlier), major votes for bond issues or referenda over tax measures for eugenic appropriations, and local reportage from active AES members in State chapters. This presentation will not be a detailed look at all the column entries, but rather a brief sampling of some typical issues, especially in regards to member involvement in the sort of professional community served by a modern academic or scientific journal.

A perfect example of this professional community function is illustrated in the second part of Johnson’s column in the Immigration issue, excerpted in Figure 4-14a on page 83 of the image file. It provides a rather curious blend of apologism for Southern evolution deniers, insider political commentary and a hint of lingering anti-Yankee sentiment among the good God-fearing people in the Bible-belt; from the perspective of an active member of the Arkansas chapter of the AES. This story follows on the heels of the infamous ‘Scopes Monkey Trial’ in Tennessee (1925), so our intrepid field correspondent would naturally be hesitant to reignite the ridicule poured upon the South by progressive Yankees, at least not without a counter-narrative to lay the blame elsewhere and thus absolve Southern adherents of eugenics from Northern condemnation.⁸⁹

The following issue in February 1929 (The Recapitulation Number) included the longest single article ever published by *Eugenics*: “The Progress in American Eugenics,” by ERO superintendent Harry Laughlin (pp. 3-16). The article, as noted in the *Eugenics’ Who’s Who* (p. 41), comes from his presidential address at the June 1928 annual meeting of the ERA and AES (he was also the secretary-treasurer). In addition to providing a concise history of the ERO, ERA and AES, Laughlin recapitulates the major successes of eugenic legislation, of which he was a major driving force as the author of model laws, an expert witness and ardent lobbyist, along with his boss Charles Davenport and the executives of the ERA/AES. Roswell Johnson’s column (p. 37) in the same issue reports

⁸⁹ See J. David Smith’s *Eugenic Assault on America* (1993), for a full expose of Southern-style Eugenics. In addition to the chapter on W.A. Plecker’s racial-eugenic crusade, Smith also profiles other notable personalities among the Southern gentry who were highly influential in passing eugenic sterilization and anti-miscegenation legislation.

on proposed eugenic legislation in Iowa, and appends his own eugenical critique of these measures, as reproduced in Figure 4-14b on page 84 of the image file.

In the same issue, Johnson also reports on the successful January 1929 passage of a eugenic sterilization bill in the Canton of Vaud, Switzerland, and the ultimate fate of a similar bill in New Zealand, as previously reported in the January issue. Although the “Mental Hygiene Act” was passed by the New Zealand Parliament, “the provision for sterilization was cut out during passage,” thus making Vaud “the only non-American state having legal provision for official sterilization” (p. 37). Apparently Johnson had not yet heard of Alberta’s brand-new *Sexual Sterilization Act*, which had just been passed by the United Farmers of Alberta government, in March 1928.

The final exemplar of the Legislation department to be considered here is an excerpt of a rare two-page column that appeared in the June 1929 “Medical Number” (p. 30, 31). It is a collection of individual stories involving eugenic sterilization and marriage restriction bills in several states from across the nation, providing a good sampling from across the spectrum of eugenic issues. The excerpt, reproduced as Figure 4-14c on page 85 of the image file, includes reports of the successful passage of a eugenic sterilization bill in North Carolina, and an upcoming bond issue for enlarged facilities for eugenic segregation of the feeble-minded in Johnson’s home state of Pennsylvania. These kinds of news snippets and insider accounts served a political activism function for the committed base to remain informed and active with local initiatives, long before the age of cable-news channels, or the ultimate memetic specificity and global penetration offered by the Internet.

This same pattern of coverage and reportage was to continue throughout the remainder of *Eugenics*’ production run, celebrating minor gains, lamenting hard-fought political losses, and ‘counting-up’ the number of states who had enacted various forms of eugenical legislation. Later issues used the economic motivation of high unemployment and dropping government revenues to argue for more compulsory sterilization initiatives to ease the rising welfare burden. But the biggest development on this front did not occur until the last issue of *Eugenics* in February 1931. Ironically, for both these portfolios, it was to be the worsening Great Depression which led to the biggest declines in immigration; and an increase in eugenic sterilization as it replaced long-term segregation as the most economical method to control the ‘unfit.’ This will be expanded upon in the final section of this chapter, detailing the “End of *Eugenics*” and the lone issue of *People* magazine, before the journal became an environmental casualty and the Galton Publishing Company shut its doors. Though the *Eugenical News* pamphlet published by the Eugenics Record Office in Cold Spring Harbor continued for another half-dozen years, it did not have the popular exposure or educational impact of *Eugenics*.

The Memes Remain the Same – But the Memetic Environment Waxes and Wanes

What should have become clear over the course of this section is the high priority placed by the AES on the Immigration and Legislation fronts and the promulgation of the embedded racial-restrictionist memes, such as in the National Origins clause debate. This was further demonstrated by the involvement of the upper leadership of the AES and its erstwhile allies in these portfolios. Apart from the educational and popularization functions of *Eugenics*, these columns also fulfilled the political and professional community functions of the journal, such as tapping the membership for lobbying or other political action. Although the committed base of the AES was never more than about 2000 people or so, they included many powerful movers and shakers that worked tirelessly to further the political agenda and enact legislation that would translate these parts of the eugenics paradigm into the law of the land.

The section in Appendix IV detailing three representative feature-articles on eugenics education includes one on “Mongolian Imbecility” by Dr. Madge Thurlow Macklin of the University of Western Ontario, as the chosen exemplar for the professional education function of *Eugenics*. It represents the kind of medicalized, reform eugenics that persisted long after World War II, in many cases into the late 1960s or the 1970s, until the memes and egalitarian paradigm of the civil-rights movement finally overcame the remnant memplex and policy detritus of Interwar eugenics.

The End of *Eugenics* and the Lone Issue of *People Magazine*

This last section of Chapter IV will examine the end of *Eugenics* (February 1931), and its replacement by the lone issue of *People*, before it too disappeared without even a fanfare or nod good-bye. This forced finale came a mere 18-months after the celebratory “Anniversary” editorial of October 1929; the same month that the great stock-market crash plunged America (and much of the rest of the world that had not already succumbed) into the Great Depression. The October 1929 editorial celebrated the success and growth of *Eugenics* a year into its publication, and hailed an “increase in subscribers of 100 percent” (p. 35). It also reflected on a remarkable first year, including favorable relations with the press for providing publicity and stimulating “eugenical thought and eugenical interest over the nation in general.” The editorial praised the quality of its contributing authors and department editors “who give way to none in this or other countries for distinction, authority and power to convince.” It then turned to the bright future of *Eugenics* and of eugenics in America, as reproduced in Figure 4-14d on page 86 of the image file for Chapter IV.

This widespread optimism was understandable when the editorial was written. But by the time the Depression began to bite (it was well into 1930 before *Eugenics* acknowledged the crisis), the prospects for *Eugenics* were less rosy, and soon an increasing number laypeople and casual readers were dropping their subscriptions, pleading a lack of discretionary funds, even while praising the journal for its educational and inspirational value. This was less a trend among the core professional base and especially those academics that got their subscriptions paid by their institution. But without some buy-in by the progressive public, the movement could not grow or gain mainstream status.

As reported in the Immigration and Legislation section of Chapter IV, the worsening economic conditions and high unemployment were used to buttress the continued AES rhetoric for decreased immigration from Europe, and the imposition of similar or even more drastic quota restrictions from western hemisphere nations. The lower cost of eugenic sterilization versus life-long segregation of the various categories of ‘unfit’ also gained increasing support in the first year of the Depression. But the adverse impact on the AES and its flagship publication was kept secret, until the very end. As mentioned previously, the number of color options for the front cover was reduced to four in 1930 as a minor cost-cutting measure; but official optimism for a brighter future never really faded.

As late as January 1931, *Eugenics* amalgamated the Population department with the Birth Control department to create “Larithmics.” It was edited by Guy Irving Burch, the editor of the somewhat irregular Population department, which had debuted in early 1930. The change was motivated by AES President Henry Pratt Fairchild of NYU (see previous section on Educational

feature-articles for a brief description of Professor Fairchild), whose recent article in *The American Journal of Sociology* (Fairchild was to become president of the ASA in 1936) had coined the term, and the article was condensed for the opening section of the debut edition of the new column. The explanation for the merger and its inspiration, as well as a brief diagrammatic summary is excerpted as Figure 4-14e on page 87 of the image file.

The end of *Eugenics* was announced in the editorial of the final issue in February 1931. The other established departments of the journal published their last columns, as previously covered in the various dedicated sections of Chapter IV and Appendix IV. This clearing-up the old agenda to make way for the new *People* also included the infant *Larithmics*, and a portion of that last column is presented as Figure 4-14f on page 88 of the image file, both for its prophetic qualities and its characteristic optimism, even in the face of the ultimate doom of the journal. It also includes a brief biography of Dr. Burch, taken from the *News and Notes* section of the same issue (p. 29).

The final *Larithmics* column goes on to feature a couple of short items attesting to the effects of the worsening “business recession” as it applies to global economic functioning, and its effects on marriage rates in Manhattan, the business capital of America. These are copied side-by-side in Figure 4-14g on page 89 of the image file, to show the ongoing hereditarian interpretation of the current business cycle, before F.D.R.’s New Deal changed everything; in an ideological shift analogous to today’s generation’s bail-out of banks and big businesses following the Great Recession of 2008.

In addition to the *Larithmics* department, the February 1931 issue also saw the swansong of Roswell Johnson’s Legislation department. Before turning to the fateful final *Eugenics*’ editorial, this established department’s finale will be considered first, since it had a significant role in the lone issue of *People* that will be examined afterwards. As discussed in Kenneth MacArthur’s last *Eugenics* and the Church column (see Appendix IV), Johnson had only just received the text of Pope Pius XI’s Encyclical on “Chaste Wedlock,” but did not have enough time for a carefully considered analysis or reaction. It is basically just a collection of cut and pasted sections of the first Associated Press reports on the Encyclical. This was followed by a more typical short piece considering the likelihood of further progress of eugenic sterilization bills in Vermont, Oklahoma and Roswell Johnson’s home-state of Pennsylvania. The last Legislation column is copied as Figure 4-14h on page 90 of the image file. This is followed by the final *Eugenics*’ editorial, still holding-out hope for a eugenic rebound and a rosy future for the movement, as illustrated in Figure 4-14i on page 91 of the image file for Appendix IV. This optimism in the face of impending doom was insufficient to forestall the fate of the journal, as the next major section will explain.

Introducing *People*: The Last Hurrah of Eugenic Populism for a moribund Progressive-era

As explained in the final editorial, the prime motivation for the AES to retool *Eugenics* as a popular magazine was to “enlarge our field still further, seek for a still broader and more numerous audience, impress the eugenic doctrine even more immediately upon the American people” (p. 67) This broadening of the base was supposed to transform the movement from a relatively small clique of American aristocrats, academics and professionals into a mainstream movement that would become self-perpetuating and multigenerational. The format change was significant, as will be described further, but it is notable that the editor downplayed any change in content. Readers were reassured that the quality would remain above reproach, and that their favourite features would be retained. They also pledged the existing departments would continue, while new ones would be added, to cover the full panorama of the eugenic field of purview. In addition, we were told that the purpose or aims would not change, nor would the sorts of contributing authors and editors.

Readers were also explicitly informed that the “more strictly research articles” would be dropped, after an apparently rising-tide of negative reaction from both members and more casual readers. This was actually briefly addressed in a previous letters section, but at the time there was no editorial comment suggesting this would be changed. The *Eugenical News*, already long established, would return to being the specialized forum for the insiders and experts of the AES, ERA, ERO and other eugenics stalwarts, while *People* would offer “less formal articles explaining the application of the theories disclosed in scientific papers” (p. 67). *People* would be more of a popularizer than a disseminator, but subscribers were assured they would still have the same “authority that they have always had.” We were told these concerns had been shared by AES members, and thus must be a “thousand-fold more true for the layman without... previous knowledge of eugenics.” Thus, like any specialty publication or narrow interest group, in order to grow and breakthrough to a mainstream audience the journal had to drop its academic pretenses and become a simplified primer for the masses that could hold their attention and then gradually build-up a basic ‘scientific literacy’ in eugenics and hereditarian doctrine. This section also sketches what the American movement might have become, had the Depression not choked-off its growth and hailed its decline.

There was an attempt not to alienate the core base, and much of the placatory language is designed to hold onto the base support, while going halfway to reach the neophytes and potential new subscribers, who were apparently less than impressed by the old format. This illustrates the difficulty of growing a fundamentalist movement of committed disciples into a broad-base of mainstream support, but without alienating the true-believers who pioneered the movement.

However, in the extreme Natural Selection arena of the Great Depression, even going halfway was not enough, and extinction soon followed the attempted adjustment, even before reader feedback could be received to further tweak the formula. Thus it was ‘one and done’ for *People*. In the absence of any available written post-mortem by the editorial board or AES insiders, one might suspect that economic reality simply overwhelmed any amount of concerted enthusiasm or enforced positive-spin. With this foreshadowing, it is time to look at the one and only issue of people, starting with the front cover, simulating *Life* or *Liberty*, as reproduced in Figure 4-15a on page 92 of the image file. This is followed by the inside of the front cover in Figure 4-15b on page 93 of the image file, listing the usual suspects from the AES leadership.

The inside title and contents page of *People* looked quite similar to its predecessor, with a few minor changes. The header and footer for this page is shown in Figure 4-15c on page 94, while the actual contents is shown in Figure 4-15d on page 95 of the image file. Other than the main title and a new subtitle, the remainder is essentially the same, with the exception of a new managing editor and the promotion of former managing editor “C.P. Ives, 2d” to executive editor. Not surprisingly, given the tough times, there was no increase in the subscription price, or that of individual copies, despite moving to the larger format and a slightly increased page count (up from 40 to 48 pages).

The major change to the first page was on the left side, where “**OUR PEOPLE**” (see Figure 4-15e on page 96 of the image file) replaced the “*Eugenics’ Who’s Who*” that used to be found on the inside back-cover. Here is where the real fine-print begins, probably only 8-point type, which may have driven many older readers to pull-out their magnifying glasses. Indeed, the fonts used for the smaller titles, text and photo-captions in *People* were consistently smaller than *Eugenics*. Together with the increased page-count (to 48-pages from the standard 40-pages of *Eugenics*) the smaller type-sizes meant more content could be packed into each issue, had the magazine survived and prospered. As we will see, the new magazine also included more photos (the standard minimum seems to be one picture per page), often taking up half a page or more. The exception to this image-packed style were the newly revised regular-features sections (like reader letters or news pages), which used even smaller fonts. Overall, I would estimate a fifty-percent increase in total word-count over the old format, despite more and larger photos.

In examining the names of the contributors for this premiere issue (Figure 4-15e), it can be seen to be a mix of old stalwarts, like Ellsworth Huntington, Roswell Johnson, sociologist Frank Hankins (a future president of the ASA, like Huntington); and some new names, like Polyzoides, Bossard and Jacobus. Notice that there is some brief mention of the content of future issues here, validating my hypothesis that the sudden end was unexpected. The majority of the issue’s authors were professors

at Eastern Seaboard universities. However, the presence of at least a few non-Nordic names may have given some encouragement to people like Rabbi Newman, who had contributed the lone dissenting article in the “Immigration Number” of January 1929, praising the efficacy of the American Melting Pot. Whether this signaled a conscious move away from the Nordicism agenda is difficult to judge from a statistical case of one, but it does indicate a nod to the “reform eugenics” characterized by Kevles (1985) in his seminal history of the eugenics movement.

A better indication of this rededication to broadening the base and expanding the movement can be found in the inspirational message of the editorial page (p. 16), retitled “**PEOPLE**” **SAYS**, excerpted as Figure 4-15f on page 97 of the image file. Characteristic of the hereditarian worldview, the first paragraph of the editorial praised the pedigree of *People*, portrayed as a true “eugenic baby,” something that had also been discussed in the first *Eugenics* editorial. The agenda for the new populist publication is clearly stated: to go beyond the committed members of the AES to “capture the attention of the average man,” and educate him in the importance of human heredity and eugenic principles, “effectively, efficiently and more widely” (p. 16).

Although the editorial team claimed *Eugenics* had already succeeded in evangelizing the eugenics cause to a wider variety of people, they were pinning their hopes on a major breakthrough to the general market of popular monthly magazines. This was also the mission for the Galton Publishing Company, which had started publishing eugenics-related books for both experts and the interested layman. But while the magazine’s pedigree may have been perfectly sound, the timing for its debut was not. So while the principles of biology underpinning *Eugenics* may have been immutable, the economic success of new magazines launched during the depression was not a safe bet, and even established publications (like the popular *To-day and To-morrow* series featured in Chapter III) were to succumb to the predations of shrinking markets and falling disposable incomes.

The editorial also takes umbrage at the euthenic view that modern technology has the ability to improve the human race, and overcome any hereditary weaknesses or shortcomings. This euthenic paradigm and the environmentalist worldview was the biggest memetic rival to eugenics and the hereditarian worldview, and it was gaining in its following, particularly among socialists and their hard-core Communist cousins. This rivalry would be played-out in a very high-stakes poker game in Stalin’s USSR (Kohlman, 2011) with the neo-Lamarckian forces behind Trofim Lysenko taking the jackpot, while their rivals were purged from Soviet society. In America, the same trend never went nearly as far, and after World War II, the burgeoning Cold War was to ensure that any philosophy embraced by the ‘Red Menace’ would be opposed at the highest levels, with a diametrically opposed

viewpoint. In America, the main exponents of neo-Lamarckian ideas were Jewish and socialist-leaning, and were united behind Franz Boas and his school of cultural anthropology (Spiro, 2009). They were to find many converts and new disciples as the Depression wore on, supplanting the racial anthropology of Henry F. Osborn and Madison Grant. But for now, *People* was counting on the fact that most Americans, only a generation or two separated from a rural farm background, still had an intrinsic belief in the power of heredity over environment. It was this ingrained belief system that the AES wished to grow and inculcate into the consciousness of the progressive public.

The last paragraph of the editorial is a case in point of this progressive *Weltanschauung*, in which scientific advancement and technological progress will overwhelm all countervailing attitudes, or traditional values rooted in puritanical religion. This belief in the omnipotence of progress, combined with a Libertarian spirit of personal freedom and responsibility for one's path in life, was to be applied to the issue of contraception, which only recently had become a popular subject for discussion in the media. There is reference to the allied Protestant Council of Churches, which had formulated its own rather agnostic policy on the matter, in direct contrast to the Catholic Church and the cover-story. Whether the preoccupation with contraception in the debut issue was intentional to break into the general market, or merely a coincidence is unclear, but the promise of its acceptance by mainstream society *was* to be fulfilled in the long-term, but for alternate aims and purposes, even as the messenger magazine became a casualty of its own optimism and hubris.

Better Babies for Fitter Families?

Among the notable changes for *People*, was the migration of the popular *Eugenics' Symposium* from the centerfold pages of the old journal to the lead position in the new magazine, along with numerous stock photos inset in the corners of the two-page spread, as shown in macroscopic view as Figure 4-15g on page 98, and in more detail in Figure 4-15h on page 99 of the image file.

This renewed focus on the family and commitment to 'quality-control' in the production of the next generation of Americans is typical of reform eugenics, as coined by Kevles (1985) and exhibited in the edited collection: *Popular Eugenics: National Efficiency and American Mass Culture in the 1930s* (Currell & Cogdell, 2006). The reference to President Hoover in the header is subtext for the precarious struggle of the eugenics movement to regain a dominant voice in ongoing efforts to lobby the Republican administration on a wide spectrum of issues. This loss of political influence came to a head in the National Conference on Child Health and Protection held at the White House in October 1930. This momentous event had been the subject for several advance news-notes, the

December 1930 editorial, and several post-event letters lamenting the severely limited status of eugenics and a paucity of hereditarian perspectives in the official program and workshop sessions. Instead, environmentalist perspectives (euthenics) dominated the agenda and working sessions, and eugenics (as “heredity”) was confined to the margins of one workshop section. It was even further minimized in the official press releases; dashing the hopes of the AES for an expanded stage for its hereditarian message and eugenic prescriptions to cure the nation’s ills. Indeed, this minimization was emblematic of the decline of the movement in general, and presaged the attempted retooling of the specialist journal *Eugenics* into the populist magazine *People*. Partial responses of two of the Symposium panelists, both colleagues at Yale, are excerpted in Figure 4-15h, and these serve as good exemplars of the attempt to re-insert the hereditarian eugenics’ memplex into the Hoover Administration’s proposal for family-allowances to encourage ‘better babies’ in a time of dire economic straits, rather than simply more babies.

Whereas the Hoover Administration was now proposing a universal child-allowance system, which became an almost ubiquitous standard after World War I in many Western nations (France for instance), it really accelerated after the onset of the Great Depression. Of course, the AES had already been proposing family allowances for eugenically promising WASPs; especially for faculty members of colleges and universities and for worthy Progressive Protestant clergy (see sections on Popular Education and Eugenics and the Church). This was explicitly addressed in the December 1930 issue. Eugenicists saw this as a prime opportunity for meaningful positive eugenics, both because of the low salaries of junior professors (and many other faculty members in all but the most well-endowed private universities), and due to the long period between undergraduate education and actually becoming paid faculty. By itself, these factors almost guaranteed a small family, if there were to be any children at all. Various schemes were also proposed to identify and reward promising undergraduate and graduate students, especially those already married and wishing to start a family now, but lacking an adequate income to allow this.

These earlier allowance proposals relied on the various sorting mechanisms and hurdles of the post-secondary education system to select the ‘best and brightest,’ and would have correlated well with membership in the ‘old-stock American’ demographic. These plans would have been privately-funded, through endowments or donations by wealthy, eugenically-minded benefactors, like the Brush Foundation of Harvard (see the Eugenic Institutions section), or the alumni associations of similar prestigious institutions. Such schemes, had they come to fruition, would have allowed the stringent selection of recipients, whereas relying on government funds would have necessitated an egalitarian approach, precluding and strict racial or ethnic criteria.

As the respondents in the Symposium lamented, a universal system dispensing only token amounts of financial aid would only encourage the imprudent and careless to have more children than they could realistically care for. This would result in many of these improvident requiring support by State welfare systems; thus adding extra tax-burdens to those of sufficient intelligence to plan their families and control the number of children they had. The panelists denounced this sort of universal system as a dysgenic measure that was bound to have a decidedly negative balance of future consequences. Instead, they advocated for provision of more birth-control information and facilities for working class families, and derided the small financial incentives as not being sufficient for the “allegedly superior classes” (p. 3) to overcome the ‘opportunity cost’ of having more children. Or, as Ellsworth Huntington put it: “ordinary” families cannot be expected to sacrifice their socio-economic status to have a larger family than they can comfortably support at their current status level. So while the meme of ‘race-suicide’ of Nordics was no longer being explicitly touted, the central issue of the ‘differential birth-rate’ was still being debated in less explicit terms.

While such selective schemes would have been popular with well-to-do subscribers to *Eugenics*, it might not be seen as a panacea by those who never had the financial means or grades to get into college or graduate school. An alternate scheme for the working poor, highlighting a French model, is presented in pictorial form on the following page (p. 4), separating the Symposium from the cover-story and is listed in the table of contents as: “Frontispiece, Children Welcome!” This full-page photo is excerpted Figure 4-15i on page 100 of the image file, with the very small-type of the caption magnified for greater readability:

‘Old-stock Americans’ would already understand the Catholic prohibition on birth-control (both contraception and sterilization) and its radical effect on racial demographics in places like New York and New England. In the high-density Northeastern Seaboard, successive waves of ‘Catholic Irish,’ then Italians and Portuguese, and eventually French Canadians (as documented in previous issues of *Eugenics*) had outbred the prudent WASPs, in an exponentially accelerating trend with each new wave of immigration.⁹⁰ Faithful subscribers would also have prior knowledge for the wholesale opposition to negative eugenics measures previously expressed by Roman Catholics in *Eugenics*.

⁹⁰ Earlier issues of *Eugenics* had often contrasted the ‘Catholic Irish’ of the Irish Free State with the ‘Protestant Irish’ or ‘Scotch-Irish’ of Northern Ireland. Likewise they also differentiated the more Nordic Italians of the northern states, with the ‘swarthy’ southern Italians or Sicilians who were denigrated as racial inferiors and problem social-group. It is worth noting as well, that of ‘native-Canadians’ (native-born whites) immigrating to America (the largest post-restriction demographic), only the Catholic Quebecois immigrants were the subject of any proposals for restriction. Previous articles had also made note of the racial admixture of Aboriginal Canadians with the original French colonists to produce the *Metis*. But old-stock WASPs from Ontario, or from the West, were ‘Good to Go!’ (See the Immigration and Legislation section of Chapter IV for much more detail).

Roswell Johnson's Cover Story on the Pope's Encyclical

With this curated preview completed, it is now time to consider the lavish cover-story supplied by Professor and future AES president Roswell Johnson (1877-1967), who had promised an analysis and eugenic critique in the final issue of *Eugenics*. Surely he would have realized the demographic implications of this official pronouncement by the Holy See, though he did suggest that many better-off American Catholics were already widely practicing contraception. And, as we will soon see, Johnson summarily minimized the overall effect in his conclusion, even suggesting it would soon be 'progressively' modified, as a result of widespread alienation by the "more intelligent and more capable" (p. 9). Apparently, even at that late date, he did not know he was writing the epitaph for the magazine, while the Encyclical would remain official Vatican dogma by the Vatican until today, though the Church has recently begun to soften its rhetoric on marriage and contraception.

The first-page of the article, "Eugenics and Chaste Wedlock" (pp. 5-9) with its large titles and header is presented in its entirety in Figure 4-15j on the page 101 of the image file. Four of the five pages of the article are dominated by pictures or images occupying more than half the total page-space. Except for one picture, showing a generic American family of some means; the other images emphasize the pomp, austere practices, outdated medieval traditions or non-scientific philosophies, and the old Imperial-Monarchical structure of the Roman Church.

After being minimized by the environmentalists organizing the Hoover White House conference on Child Health, the AES's hereditarian worldview was now being challenged by the Vatican as a spiritual authority for the West's most populace religion. The Encyclical did not just minimize the importance heredity and the authority of eugenical science, it flat-out denied them, using "natural rights" to brush aside their "conjectures and investigations," leaving the scientists "mystified" (p. 6). Not only was the hereditarian doctrine dismissed, but the Church's message for only selecting mates from the same pool of believers, regardless of eugenic merit, was derided as dysgenic and self-serving.

Johnson criticized the socialistic rhetoric that would grant every family man his daily bread and the necessities of life from the commonwealth. He also devoted special attention to the dysgenic practice of celibacy among the religious and clergy, with a response that was copied into the caption of the large photograph above the text, excerpted as Figure 4-15m on page 102 of the image file. He reacted strenuously to the Church's policy of placing religious celibacy above the vocation of married life and parenting as "seriously dysgenic," although he did not raise the spectre of race-suicide. He was dismayed that marriage "could be interpreted in so patriarchal and primitive way in 1930" (p. 6).

To be sure, Johnson found passages worthy of faint praise, for instance the cautious language supporting the basic human rights of married women. He also offered hope that the Church would eventually soften its stance to better reflect progressive values in democratic countries like America. The subsequent large stock-photo embedded in the article presented a pictorial counter-narrative to the stodgy traditions of the Roman Church; showing a happy, healthy, middle-class American family of some means enjoying a relaxing evening in their living room. The fashionably dressed young mother was perched higher than the father, who was dutifully interacting with their children, in a posed scene that would be later played-out on American movie and television screens throughout the baby-boom years. The edited caption showed the contrasting passage from the Encyclical, to emphasize just how ‘un-American’ and un-progressive the Vatican’s pronouncements were to the target WASP audience. This idyllic scene of American family life, free from the outdated morality of ‘Papist’ doctrine, is illustrated in Figure 4-15n on page 103 of the image file.

Johnson then highlighted the adverse precedent set by the Church’s unequivocal stance against sterilization, whether voluntary or compulsory for ‘eugenic’ purposes. His greatest worry was on the political front, where “blind and thoughtless obedience” would result in “a great deal of harm, as the Catholic bloc in our legislatures may now make the passage of sterilization laws more difficult” (p. 6). He quoted the relevant passage of the Encyclical that explicitly referred to eugenics as a prohibited practice, under the Biblical prohibition against body modifications. From the perspective of today’s more laissez-faire attitudes, the appropriate passage would also prohibit cosmetic surgery, tattoos or other self-prescribed permanent changes. Johnson pointed to the practice of ‘tonsures’ (the traditional ‘Friar Tuck’ haircut) among traditional monks or priestly orders, as amounting to the same thing; showing-up the arbitrary or even hypocritical pronouncements of the Holy See.

Turning to the theological and philosophical authority of the Pope’s position, Johnson indicted St. Thomas Aquinas as a false-prophet of Catholic virtues, pointing to the dysgenic advice and “hard-hearted doctrine of the sacrifice of the mother’s life for that of the embryo” (p. 7) at any stage of pregnancy as being particularly egregious. This, together with the Church’s “unyielding attitude on divorce...despite all of the light that modern psychology and sociology have shed on marriage” made the Pontiff’s seemingly arbitrary pronouncements “beyond comprehension...to the eugenicist or person with scientific habits of thought” (p. 7). Johnson then detailed a few valid eugenic and sociological reasons for divorce, taken from his *Applied Eugenics* (1918) text-book, co-written with the Institute of Family Relations director, Paul Popenoe (see Popular Education section for more on this California-based institution).

Johnson dismissed this section of the Encyclical using the analytic lens of eugenics: “If such rigidity brought about a superior selection of mates...prevention of children that ought not to be born, and better rearing of those already born... a case might be made, but such rigidity is one of the least effective means in that direction” (p. 7). As if to personify his portrayal of the Catholic Church’s positions as being based on long-discredited medieval superstitions, the article featured a drawing of Saint Thomas Aquinas, centered in the middle of the next page, subtly insinuating the long-passed best-before date for the Encyclical’s authority. This image and caption is excerpted in Figure 4-15o on page 103 of the image file.

After dismissing the Vatican’s ultra-conservative positions on sterilization and divorce, Johnson cut into the meat of his analysis: the Church’s pronouncements on birth-control and artificial contraception. He began this section with the preliminary observation that “it is for birth control that the encyclical reserves its largest space and choicest invective” (p. 8). He used pejorative snippets of the text to convey his negative evaluation of the reasoning and authority of this standpoint. He summarized the gulf between eugenic reasoning and Church dogma as this:

The contrast with the eugenic position is striking. The eugenicist deplores childlessness, no matter how accomplished, in *all* superior and average families where the health and income make children feasible. (p, 8)

Johnson perforated the Church’s lone concession to family-planning, the use of the so-called ‘rhythm method.’ He dismissed it as being notoriously unreliable according to clinical evidence, and damaging to the “amative attitude of wife to husband” and vice-versa, as result of the worry about pregnancy and the “direct neurological damage” this caused (p. 8). He also berated the Encyclical’s clarified position regarding the “incident of Onan” (the biblical euphemism for masturbation, which dared not speak its name in the article) as being misguided, in that it falsely confuted “Judah’s command to comply with their tribal custom” (to be fruitful and multiply) with “the means he employed to carry out his defiance” (p. 8). He offered some token support for certain “little harbingers of a more scientific attitude that may be expected in the next encyclical,” and took a quantum of solace in the hint that the Church saw some “secondary ends to matrimonial rights” in cultivating mutual love, and took this as a sign of progress compared to the even stricter “view of some ascetics like Gandhi that no sexual intercourse is to be tolerated without the express purpose of procreation” (p. 8).

The final page of the article distilled the Encyclical's prohibitions on the ways of modernity, below the dominating view of the "Coronation Anniversary" of Pius XI in the Sistine Chapel (p. 9). The final paragraph of the article summarized the arbitrary and often contradictory nature of the Encyclical, in contrast to progressive, rational, scientific population policy, as excerpted in Figure 4-7p on page 101 of the image file. The monarchical opulence and medieval religious ritual was the antithesis of the scientifically-reasoned eugenical paradigm in Johnson's conclusion. The large picture, incorporating Michelangelo's miraculous frescoes is excerpted in Figure 4-15q on page 104 of the image file, minus the impressive ceiling artwork that did not scan well enough to offer good contrast. The caption, while reverent to Michelangelo (certified as Nordic by Madison Grant in *Passing of the Great Race*, 1916), reinforced the medieval, monarchic hierarchy of the Vatican.⁹¹

The High Economic-Social Cost of Preserving the Unfit

Following this extended reply to a sectarian threat, the subject turned to a popular meme that was covered in much greater detail in prior issues of *Eugenics*; that of the great opportunity-cost to progressive society posed by the 'unfit' and dysgenically dependent. It is the eugenics-era equivalent of the dire warnings from today's conservative taxpayer watchdog organizations, like the Canadian Taxpayers Federation, chronicling 'wasteful' government spending, especially on 'socialist' welfare programs or other euthenically-motivated social-assistance schemes. This short piece, "What We Pay" (p. 10) written by one of Roswell Johnson's social-science colleagues from the main rival Pennsylvania university (located in Philadelphia), broke-down the huge financial cost of preserving and maintaining the unfit, in terms the average 'concerned citizen' could understand, as excerpted in Figure 4-15r on page 105 of the image file.

⁹¹ This rejection of an ancient, foreign tradition and cultural practices matches the dismissal of ancient Indian tradition and Hindu customs by Imperial British authorities in the late 19th Century. India's non-Western traditions dating back to prehistory were seen as being incommensurate with scientific progress. This ethnocentric attitude was backed by the empirical evidence of Anglo-Saxon superiority as proven by European racial anthropology, and the first stirrings of Galton's racial biometry and proto-eugenical theory. See Vanita Seth's *Europe's Indians: Producing Racial Difference, 1500-1900* (2010) for a full explanation of the distancing and depreciation of non-WASP tradition and custom compared to British scientific-technological progress in 19th Century India. This period also debuted the use of fingerprints in their modern usage as a forensic tool, as opposed to Galton's intended use as a reliable means of identifying race (beyond mere skin-colour) in a multi-racial society. In this other Colonial-Imperial relationship, the passing reference by Roswell Johnson to Gandhi on page 8 takes on a new significance.

A second photo showed a courtroom scene, and the author reminded readers of the greater indirect cost of the “socially inadequate. Dr. Bossard used a “conservative estimate” of four indirect dollars to one direct, resulting in a staggering total cost of \$25-Billion per year (p. 10). This amount was equated with the total capital investment in the American railroad system. The author suggested that while people have been largely apathetic thus far, they will soon rise-up and demand long-term solutions to the social-ills that plague the nation, like a Biblical curse on the wicked. The article was continued on one of the last pages (p. 47), with a link to the birth control debate that dominated the premiere issue. It suggested that the ‘ostrich policy’ about birth control had mightily contributed to the larger social problem, and now the chickens had come home to roost. The conclusion and its pictorial reinforcement are shown in Figure 4-15s on page 105 of the image file.

This kind of sociological-economic warning could be expected to have figured prominently in future issues of *People*, had the same economic forces not squelched the forum that would have given these dire prophecies a popular voice. It is worth noting, in regards to the authors who contributed the other articles and columns to this debut issue, the increasing role of sociology, economics, and human geography in the American eugenics movement; while the once-prominent biologists and geneticists receded. This trend became even more pronounced in future post-War iterations of the AES and its publications.

Birth Control and the Racial Future

This same ‘demographic doom’ trope continued in the next article. “Birth Control and the Racial Future” (pp. 11-15), by another sympathetic sociologist: Frank H. Hankins (1877-1970), a previous minor contributor to *Eugenics*, who had also reviewed a few volumes of the *To-day and To-morrow* series for various American sociology journals. Hankins was a future president of the American Sociological Association in 1938, right after Ellsworth Huntington’s tenure ended (1937). The article is notable for being one of the few overt mentions of “Racial” in the premiere issue, as shown in Figure 4-15t on page 107 of the image file.

Though it is not explicitly Nordicist, the trained-eye can easily infer some implicit WASP bias from the photos and captions embedded in the article. The article’s origin was exposed in the “Our People” column on the first page: “Hankins’ paper on birth control and the racial future was revised from an address given at the annual conference of the American Birth Control League in 1929.” In other words, it is one of those popularized versions of an academic paper, formerly labeled as “RESEARCH” articles in *Eugenics*, but now even further camouflaged in *People* as a popular article.

Hankins was a good example of the new breed of eugenically motivated social-scientists, who although not explicitly Nordacist in their world-view, were nonetheless obeisant to the leadership of the AES who still were. By the 1930s the Nativist-Nordacist rhetoric of the AES was more muted than when Madison Grant and Henry Osborn had formed the elite Galton Society of America (1918), and built their “interlocking directorate of scientific racism” (Spiro, 2009). Only after the deaths of Grant and Osborn in the mid-1930s, along with the retirement of Charles Davenport and Harry Laughlin and the closing-down of the Eugenics Record Office (ERO) at the end of that decade, did the AES completely drop the Nativist-Nordacist ideology and soften their hardline hereditarian stance. This metamorphosis was entrusted to the social-scientists that took-over the remnant eugenics movement from the biologists and anthropologists that had formed the first organized eugenics group, as part of the American Breeders Association (see introductory section of Chapter IV for the genesis and hierarchy of the movement).

The article reviewed the demographic impacts of the “differential birth-rate” on society that had been the clarion call of the Nordacists, in their dire warnings of ‘Race Suicide’ even before WW I. Hankins dropped the threat-level to “racial decay” (p. 11), but still invoked the prime role of birth control in arresting that decay (negative eugenics), as a key part of any future program of racial improvement (positive eugenics). He mentioned many of the usual suspects that had been indicted in past issues of *Eugenics*, even using French Canadian immigrants to New England as a textbook example of non-Nordics supplanting their WASP neighbors due to higher fecundity. Hankins linked this demographic change to past immigration of non-Nordics, particularly Catholics, who brought their old-world customs and religion with them, rather than adopting ‘old-stock’ attitudes. This racial-demographic shift was not just a statistical matter; it had direct effects on the average American phenotype, as detailed in Figure 4-15u on page 108 of the image file.

In a grand linkage of gross demographic factors operating on the population, Hankins rated “birth control is the most significant application of scientific knowledge to the problems of human welfare” (p. 12). But this would only be a positive force if birth control could be applied in a eugenic manner, rather than an actual cause of the “racial decay” previously noted. Echoing Galton’s (1904) discussion of the persistent eugenic-dysgenic effects of old religious taboos, Hankins noted that the “very nature of the subject has made it the center of violent emotional reactions,” as a result of “intense superstitions” and “squeamish prudishness” (p 12). These superstitions had to be overcome by the “valiant courage of the pioneers,” to make the subject part of a legitimate scientific program, which is “the only means whereby the reproductive impulses... can be brought under... rational regulation” (p. 12).

Hankins argued that birth control can no longer be suppressed or hidden from view due to prudish concerns and outdated social mores, but it must be adapted to eugenic ends by limiting its use among the fittest, and greatly increasing its use among the less desirable elements of the population, recapitulating the central tenets of Galton's applied science and secular religion. Hankins listed the personal benefits of birth control to the more well-off classes and argued they will not go back to raising large families if it means sacrificing comfort, social opportunities or even career aspirations by women. He summarized the situation with the bold assertion that "there is no power which will compel them to surrender it voluntarily" (p. 13). So whatever "changes are made to the social system" must boost the relative benefits of prolific motherhood to make it expedient to have more children, without giving up all the social-economic benefits of severely limited families. Hankins suggested "one such change would be greater honor for motherhood consequent upon less competition in the maternal function on the part of the lower classes" (p. 13). So, if the unfit had fewer children it would raise the cachet of motherhood for eugenically-desirable 'old stock American' women, who used to quantitatively bear children with the best of them.

But it was to be the provision of birth control to the lower classes that would have the greatest impact, and only then act as a eugenic check to a worsening situation. Hankins states that "social welfare could be enormously enhanced by a reduction of the thousands who ought never to have been born" (p. 13). He boldly declared that "the future character of Western civilization depends largely on the outcome of the decisive battle now being waged between the advancement and popularization of scientific knowledge... and the high fertility of the lower classes" (p. 13).

Hankins blamed "the entrenched forces of priestcraft, occultism and obscurantism" (p. 13) for goading the huddled masses to resist secular progress and scientific enlightenment through their misguided ministrations. Thus, the project acquired the memetic character of a scientific crusade to save American civilization, before the nation became hopelessly muddled by dysgenic breeding due to the perpetuation of non-progressive attitudes and outdated religious customs. Here Hankins used a pictorial warning of the kind of dysgenic chaos that any further major delay in taking action would lead to, using a stock photo of New York's "Lower East Side;" also known as 'Jew Town' in some quarters.⁹² This photo had been used previously, and others like it had graced previous issues of *Eugenics*, ever since the first issue (see Ellsworth Huntington's article in the Birthday Number for an example). The photo, copied as Figure 4-15v on page 108 of the image file, shows the chaotic street-scene; with horse-drawn street-vendor's carts lined-up nose-to-tail along both sides of the narrow

⁹² Refer to my review of J.F.C. Fuller's description of 'Jew Town' in his critical travelogue of America: *Atlantis* (1925), from the *To-day and To-morrow* series, located in Chapter V.

street, leaving little room for traffic-flow and thus clogging the arteries of the neighborhood with so much human plaque. Whether a more recent scene of automobiles arranged in gridlock would be seen as more progressive is debatable, but this urban congestion was a common memetic device for indicating the supreme need for negative eugenics, including birth control and further immigration restriction. The caption below, magnified for better readability, left no doubt as to the negative societal effects of this high population density and urban squalor.

So rather than being seen as ethnic vibrancy, or cosmopolitan charm, or authentic New York culture, it was treated almost as an infestation of invasive foreign species; choking-out the old-stock native-Americans, and transforming the inner-city into a hodge-podge of old-world open-sores that resisted conventional remedies. Indeed, it was during this period that the trend began for the WASP middle and upper-classes to flee the big Eastern Seaboard cities, instead seeking racial shelter and homogenous order in the new peripheral communities and sprawling suburbs that mass production of the automobile had enabled. This in turn led to further ghettoization and the balkanization of inner-city communities into patchwork ethnic enclaves, each competing for space and resources.

The scientific-technological revolution of contraception for family-planning was postulated as the “most effective blow that can be struck against these ancient enemies of popular welfare and universal enlightenment” (p. 14). If the social-appeal of birth control for the upper-classes was effective in transforming their reproductive habits, the same method must be applied to the “poor and ignorant” in order to “ward off the evils of dysgenic reproduction.” Hankins admitted that “the poor are not indifferent to their fate” and they “now realize that there is a more rational family life and they are eager to share it” (p. 14). He offered encouraging reports from abroad, as circulated at the 1927 World Population Conference in Geneva, which indicated that providing free birth control to working-class women could reduce or even wipe out the dysgenic differential fertility between the social classes. He also held-out hope that proper provision of medically supervised contraception clinics could also wipe-out the scourge of abortion and infanticide, “methods which leave behind them a deadly trail of human woe, physical debility and psychic demoralization” (p. 14). This agreed with Dr. C.P. Blacker’s appeal for expanded and State-subsidized provision of birth control advice, techniques and clinics for the working-class of London, in his *Birth Control and the State* (1926 – See review in Appendix III).

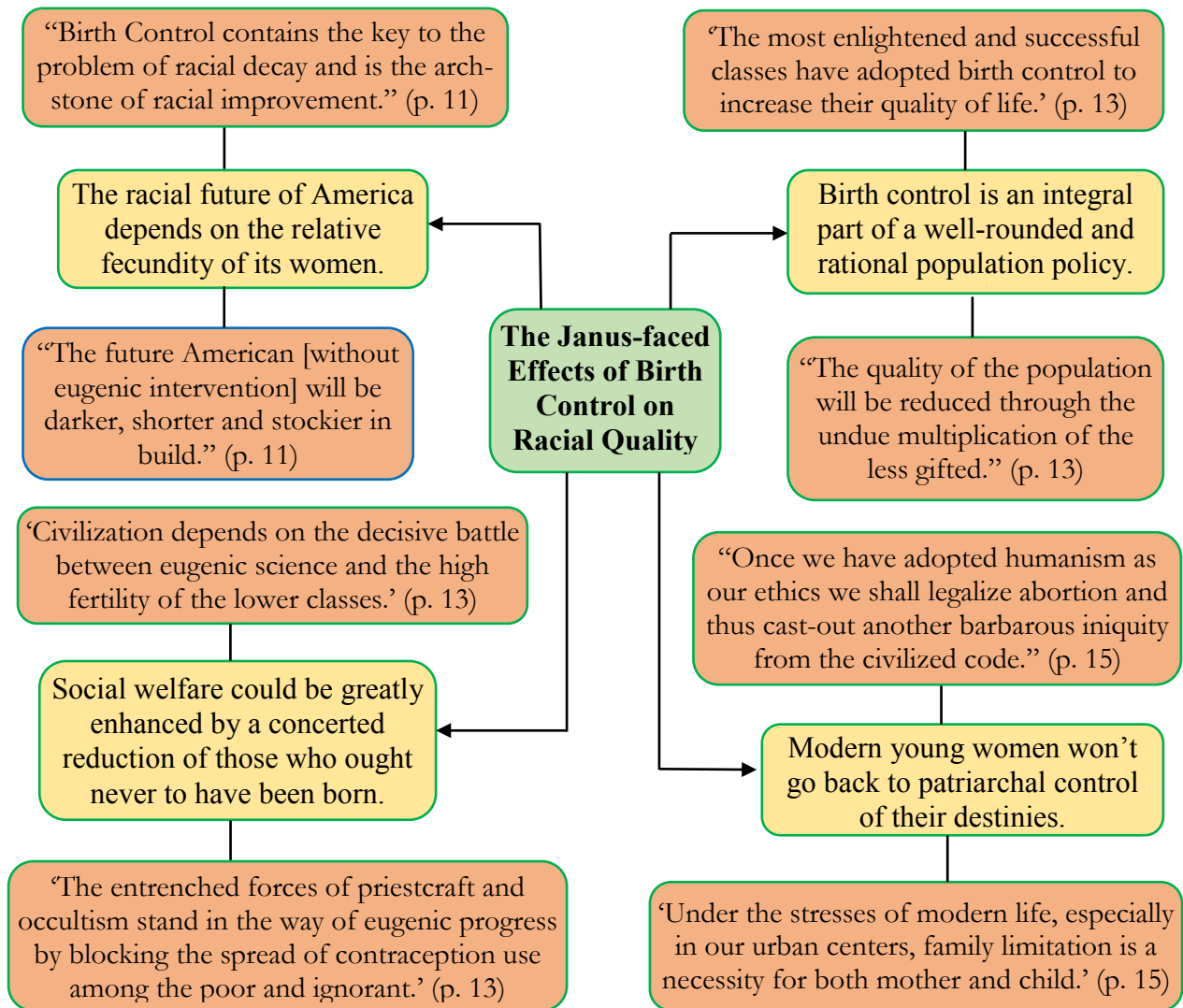
Hankins also briefly addressed one of the taboos over making contraception methods legal and available. This was the possibility that it might increase the rates of non-marital sexual relations. He declared this an “incidental aspect of the matter” and dismissed the concerns as minor compared to

the great benefits offered to the physical and emotional well-being of women. This same rhetoric was used later in the abortion debate to blunt objections based on religious morals.

For Hankins, birth control supplied a wedge to force a change in conventional morality away from the sole province of male interests, “ecclesiastical authority and militant tribalism” to finally yield to the “recognition of the right of the feminine sex” to exercise the same “control over their physical and social destinies. This indicates the development of an ethics of humanism, involving the recasting of thought and popular mores on a vast scale” (p. 15). He declared that women will not go back to the dark and archaic ways of the past. This progressive-feminist message was bolstered by the inclusion of another stock photo. It showed a group of fashionably-dressed WASP coeds, perhaps graduate students at a ‘women’s college’ studying applied eugenics for the modern family, as they are relaxing in an outdoor learning environment that acts as a visual metaphor for their emancipation from blind biology and outdated morality. The photo and its caption of philosophical solidarity with the preferred ‘mothers of tomorrow’ is shown in Figure 4-15w on page 109 of the image file.

So, with the manifold benefits of readily available contraception explained, the common objections answered and the irrational superstitions of the archaic past swept-aside, Hankins concluded his article with a sweeping, optimistic forecast for racial progress and betterment that would usher in a new age of enlightenment, as excerpted in Figure 4-15x on page 109 of the image file. The meme-map in Figure 4-15y on the following page expresses some of the central themes and sample memes in Hankins’ article on birth control and the racial future.

Meme-map for Hankins' Reform Eugenics Ode to Birth Control for Race Betterment



Color Code: Meme clusters Memes or small clusters (Green borders indicate the Reform Eugenics paradigm)

Figure 4-15y: A partial meme-map for Hankins' article on birth control in America. Unlike the overtly Nordicist paradigm on display in Paul Popenoe's previous *Eugenics* article on "The Fecundity of Immigrant Women" (v2n1, pp. 23-26), Hankins' standpoint falls within the non-racial 'Reform Eugenics' paradigm, with a few minor detours into implicit WASP superiority. Hankins was almost unique among *Eugenics/People* authors in advocating for legalized abortion (like in Norman Haire's *Hymen*). Just like Roswell Johnson's article on the Pope's Encyclical (and Norman Haire's tirade in *Hymen* against religious-based dogma and willful Clerical sexual ignorance), Hankins decries the regressive influence of religious taboo and Chauvinistic male domination on the lives and welfare of women and any resulting children. Compare this exemplar of 'enlightened' humanistic Modernism, with the "Fascist Credo for Fecundity" in Mussolini's Italy in the next section of this chapter and its respective meme-map in Figure 4-16g, where abortion and Modernist Feminism was strictly *verboten*.

Fecundity: A Fascist Credo

One of the more interesting articles ever published in *Eugenics*, even appearing sinister with our advantage of hindsight, was a sympathetic piece of eugenic propaganda that followed on the heels of the editorial page announcing *People*. “Fecundity: A Fascist Credo” (pp. 21-26) is noteworthy for two reasons besides the overtones of Fascism in Mussolini’s Italy. First, it was diametrically opposed to the issue’s general theme of contraception, and much closer to the eugenic sermons condemning birth control as leading to Nordic race-suicide. Secondly, the author Dr. Adamantios Polyzoides, is a fresh face to the *Eugenics* scene. He was not an academic or medical professional, but the editor of a major ethnic newspaper, the Greek daily *Atlantis*. Regular readers of *Eugenics*, or at least followers of Madison Grant and the Nordacist school of eugenics, would already know that Greece, like Italy, had a north-south divide, racially speaking. The remaining Nordics, celebrated for their great historical contributions to these classical civilizations being concentrated in the north; while the more fecund ‘Mediterraneans,’ blamed by Grant for the decline and fall of both Greek and Roman empires, dominated the southern portions of both nations. Polyzoides did not represent this school of thought, and was more representative of the neo-Lamarckian school of Teddy Roosevelt (Dyer, 1980), or the sort of rural folk-eugenics practiced in Eastern Europe (Turda and Weindling, 2007).

Fascist Italy had already been the subject of several news reports in previous issues, both for its hosting of several international conferences on genetics and eugenics and for its strong commitment to large families, in the cause of building a new Roman Empire to restore Italy to its former greatness (much like Donald Trump’s pledge to ‘Make America Great Again’). This was the closest the magazine came to unreservedly endorsing a foreign nation and its policies. It offers a glimpse into what the AES’s response to Nazi Germany’s enthusiastic State-support of eugenics and race-hygiene might have been; had *Eugenics/People* survived long enough to see these State sciences flower in the initial spurt of legislation by Hitler’s new government (see later in this section for news-briefs on German eugenics at the tail-end of the Weimar Republic). The first page of the article is reproduced in Figure 4-16a on page 110 of the image file.

After giving readers essential demographic statistics for Mussolini’s Italy, Polyzoides turned to the “special ground” of its eugenics movement, which was the twin objectives of “race development and race betterment” (p. 22). Here the author advertises his brand of eugenics, based on agricultural folk-science and rural Italian customs, instead of Mendelian genetics or Nordacist anthropology. He noted that in Mussolini’s Italy, the focus is on increasing the population, in preparation for a future expansion to recapture the former “glory of ancient Rome” (p. 22).

The next couple of paragraphs illustrated the “fascist credo” and explained the worldview of Mussolini’s regime, which tried to replicate the progressive spirit of American eugenics, but mixed with a revisionist return to a more glorious past, based on old-world values. This is excerpted below in Figure 4-16b on page 111 of the image file, alongside a photo of *Il Duce* in formal attire. Readers were told that Italian scientists were already receiving accolades on the world stage, while the Fascist State was devoting great efforts to evangelize eugenics through the government-controlled press, with a “very imposing array of books, pamphlets, monographs and articles” (p. 22). Polyzoides heaped praise upon those popularizers from the scientific community and the media “who have taken this mission to heart and are creating a eugenic consciousness among the higher strata of the population, with the masses as the ultimate objective” (p. 22), echoing Florence Brown Sherbon’s inclusion of the popularizer among the ‘eugenic disciples’ in her Popular Education column.

Polyzoides also lauded the Italian press and its editorial monopoly by the Party: “it is no less than amazing to read all the extremely well-written material in the Fascist press... in those brilliantly edited weekly, biweekly and monthly publications, for which Fascist Italy is now famous, and to observe how this popularization of eugenics is daily gaining ground, both in theory and in practice” (p. 22). He named a long list of eugenically-oriented publications, including the crown jewel, “the *Gerarchia* of Milan, under the personal editorship of Mussolini” himself. Dr. Polyzoides also hailed the great quickening of eugenic fervor after the twin international conferences held in 1929 in Rome, which were featured in extensive news reports and special pamphlets for several months after these events. Coverage of these events helped to stir interest amongst the public in eugenics, bolstered by the attention Italy got from hosting the international scientific community. He used the paper presented by an Austrian scientist as an exemplar of the kind of applied folk-eugenics that was sweeping the national consciousness under the encouragement of the State. This exemplar was placed right beside a stock photo of Italian sea cadets, with ominous portent in hindsight; but a good metaphor of the kind of lust for military power and imperial greatness that exemplified the goals of the Fascist regime. This brief excerpt is shown in Figure 4-16c on page 112 of the image file.

Right below this was another paragraph of great eugenic import, linking demographic problems and popular eugenics education to the enthusiasm for both progress and a return to former Imperial greatness. It also suggested an alliance of convenience between the Fascist goals for more supermen-warriors, and the Catholic Church’s contemporary public pronouncements from the cover story, making birth control *verboten* for the faithful. The language, rhetoric, and tone were also suggestive of the overtly Nordacist-Nazi propaganda of Josef Goebbels. The actual evolutionary mechanism for social improvement however, was much closer to the ‘Sovietized’ neo-Lamarckianism of Trofim

Lysenko, once his crude folk-science received the personal approval of Stalin and was translated into official Marxist-Michurinist dogma (Kohlman, 2012). The evocative paragraph is copied in Figure 4-16d on page 113 of the image file, carefully posed beside a displaced photo from the cover story.

After this foreign diversion, Polyzoides turned again to the new breed of “Fascist writers” who were fervently working to raise race-consciousness and eugenic awareness in the Italian people. Here we see more of the rural folk-eugenics and a patriotic rejection of “modernism,” “urbanism,” and “feminism” (p. 24). He quoted a Dr. Noble, who decried the urbanization and moral decay caused by modernism, and who heralded the situation in France as a prophetic prelude to the same in Italy:

We have before us the sorry example of France...If this tendency of our rural people to flock to the cities continues, our birth rate will be lowered...We must therefore maintain in the country districts those moral conditions that prevent a demographic decadence, and at the same time we must fight in the cities the causes, mostly moral, of the lessening birth rates of our people. (p. 24)

Centered on the same page where these Fascist writers were being lauded for their eugenically revolutionary attitudes and commitment to racial betterment by a return to traditional pastoral life, was another stock photo showing “idyllic” Italian village life, copied in Figure 4-16e on page 114 of the image file.

Another author, writing in Mussolini’s *Gerarchia*, appealed to the “new woman of Italy to turn her back on modernism, sport and present day feminism, and do her share towards the increase of the birth rate” (p. 24). We were told that Mussolini was personally spearheading the campaign for Italians to return to the large, prolific families of the past, congruent with Pius XI’s message and also what American eugenics had advocated for many years for superior women of Anglo-Saxon stock. But there was no reference to anthropological-racial divisions like Alpines, Mediterraneans or Nordics. When Polyzoides talked about race, he meant the nation as a whole, although there was periodic mention of “better elements.” But here, these better elements also included the peasants and small-plot farmers who worked the land or toiled in agricultural-based businesses in the small villages. Another photo showed village women washing clothes in a passing stream at an “ancient public washing station” (p. 25), and extolled the maternal health benefits of such strenuous activity.

Polyzoides also praised another article in the same Fascist forum, which used sharp Marxist rhetoric to condemn the “Neo-Malthusians of Anglo-Saxondom,” who bemoaned their declining numbers while advocating for women’s rights and birth-control, even as “other races are moving forward and are already threatening their world hegemony” (p. 25). The message to all Italians was

made clear with this stark warning, by the same author, sounding very much like the Teddy Roosevelt of thirty years before (Dyer, 1980), and quoted for effect here:

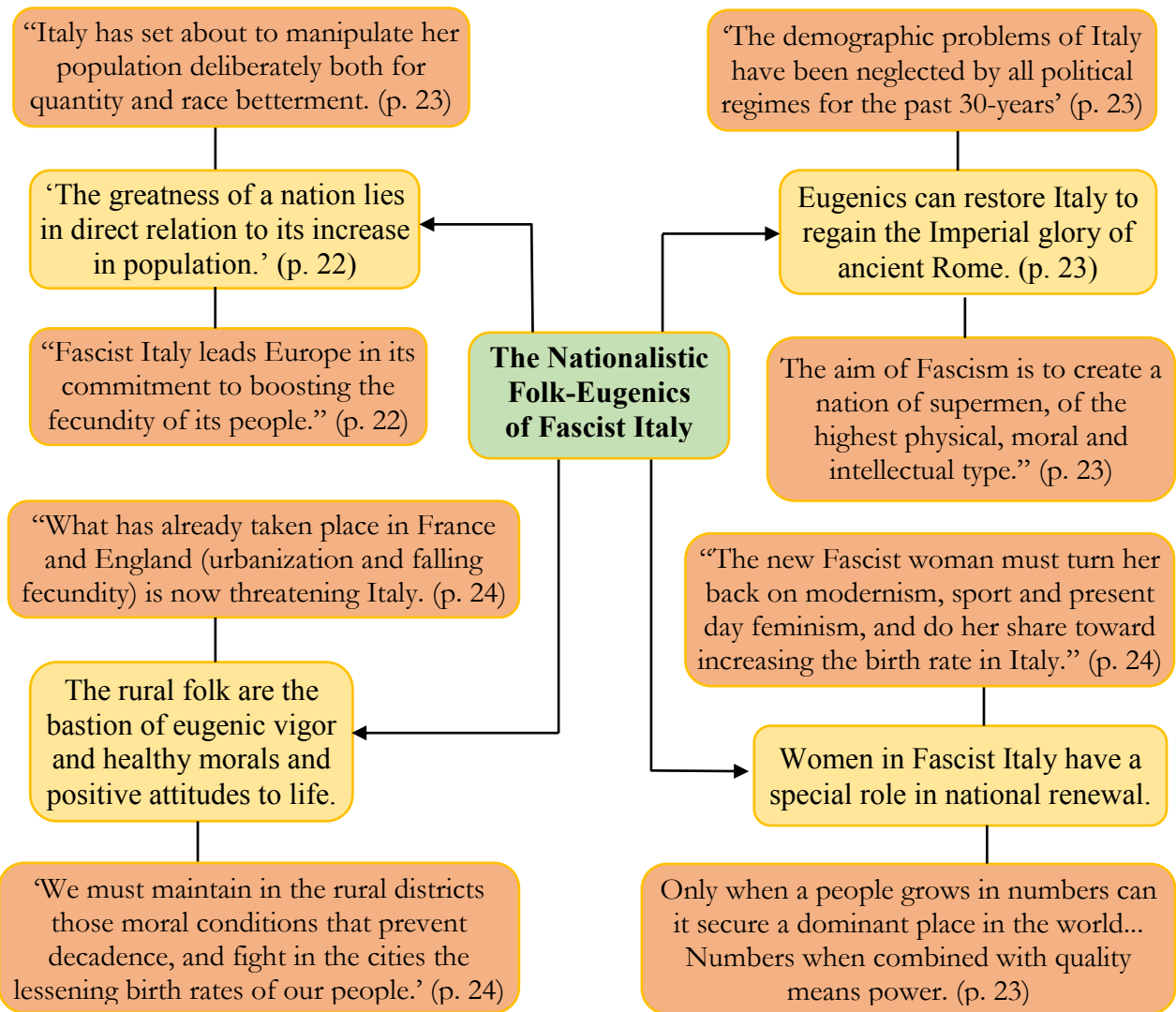
If we Italians do not wish to be degenerate sons of the grandeur that was Rome, we must abandon the mistakes of the past. Only when a people grows in numbers can it secure a predominant position in the world...Numbers when combined with quality mean power.

This Italian brand of eugenics differed from the class-based eugenics of Britain, as well as race-based American eugenics and German race-hygiene (Weindling, 1989). It was not unique, however. In fact, it very closely resembled the folk-eugenics of Eastern Europe that developed after World War I (Turda & Weindling, 2007). It also loosely imitated the less ‘Aryan’ strain of German folk-eugenics that developed in the Weimar Republic, as opposed to the explicitly Nordacist *Rassenhygiene* movement that split-off as a separate entity (Engs, 2005). It incorporated environmentalist theory and eugenics, as well as popular traditional memes of returning to nature, rural life and healthy outdoor pursuits (Turda & Weindling, 2007). Several of the satellite nations that belatedly joined the Axis when it appeared that Hitler would prevail in Europe, developed similar flavours of folk-eugenics that celebrated large families and the hard physical labour of traditional farm or village life. These included Hungary, Romania, and Croatia.⁹³ Like Italy, they each supplied troops for the Eastern Front. These Axis satellites did not fare well against the Red Army, even in the initial rapid advances of Operation Barbarossa, and Stalin’s later retribution was severe (Haupt, 1998).

While numerical strength could be achieved through the banning of contraception and incentives to prolific procreation, the quality aspect was also briefly addressed, although there was no definite mechanism to achieve this. Polyzoides did cast special attention on a couple of recent articles by an intrepid author from *Critica Fascista*, focused on the family as the basic unit of Fascist society and the key to re-establishing an elite aristocracy, such as the Patricians who ruled ancient Rome and Renaissance Italy. The brief reviews of two of these articles are excerpted in Figure 4-16f on page 115 of the image file.

⁹³ Romania, with a fascist dictatorship (Ion Antonescu) that also patterned itself on the ancient Roman Legions who had ‘pacified’ the area, would also use the pretext of the war to launch a brutal pogrom upon its large Jewish and Roma populations. Romanian army units and special police drove their victims like cattle into the newly occupied territory beyond the Dniester River (*Transnistria*), or locked them into sealed trains for days and hauled them to their deaths in primitive camps. It became a practice during these death-train drives to stop periodically and pitch the dead bodies out onto the sidings for mass burials, using the living to dig the graves at gunpoint, sometimes in full view of other passengers or passers-by. These Romanian operations actually caused hardened members of the German SS, who were serving as liaison officers with the Romanian army, to write angry letters to Himmler at SS Headquarters in Berlin; not because they murdered tens of thousands, but because the ‘technical aspects’ of these operations were shoddy and in full view of civilians. (Weitz, 2003; Solonari, 2010; Turda and Weindling, 2007)

The Folk-Eugenics of Fascist Italy in Polyzoides's Article on *Il Duce's* Appeal to Fecundity



Color Code: Meme clusters Memes or small clusters (Yellow borders indicate the Environmentalist paradigm)

Figure 4-16g: A partial meme-map of the pro-Fascist folk eugenics in Polyzoides appeal to fecundity in *Il Duce's* Italy. It echoes some of Leon Whitney's rural imagery and farming motifs in his popularized explanation of the need for Immigration Restriction to preserve America's Nordics (as presented earlier in this chapter). This closely parallels the naïve folk eugenics of Eastern Europe (Turda & Weindling, 2007; Solonari, 2010). Compare this memplex to the prior memplex for AES Executive Secretary Leon Whitney's analogous Nordicism educational effort in Figure 4-13r).

With his exposition of Fascist eugenics complete, Polyzoides returned to the ultimate goal, where the people of the nation, like cells or parts of a giant organism, subordinate themselves to the nation, and the will of *Il Duce*. This is a biological analogue to Stalin's notion of the population as being "cogs" in the great Soviet machine, with Stalin and the Party as the brain or intelligent control circuitry (Zubkova, 1998). Polyzoides looked forward to a time when eugenic consciousness will trickle down from the Party apparatus to penetrate the entire body politic. He was encouraged by the "fervent imitators in Germany" that borrowed from their Fascist comrades in Italy (in fact quite the opposite) to "take the nation by storm" (p. 26), in his stirring conclusion, as presented in Figure 4-16h on page 115 of the image file.

As a newcomer to the *Eugenics/People* stable of authors, Polyzoides may be forgiven for his confusion over the chicken-and-egg origins of Fascist Eugenics. While he may have been a latter-day member of the AES, he was certainly no insider, nor was there any previous mention of him in earlier issues. My suspicion is that he was a casual reader and saw an opportunity to publish a piece outside his own ethnic daily newspaper for some extra income and exposure. In truth, *Eugenics* had published numerous stories and reviews of German eugenics and race-hygiene books, often by the prolific Paul Popenoe, who was fluent in German. (See the section on the feature article by German Jesuit priest, Dr. Joseph Mayer in the Eugenics and the Church section of Appendix IV).

In any case, it was Nazi Germany that truly revolutionized and industrialized negative eugenics and race-hygiene on a vast scale. And in the *Lebensborn* (fount of life) Program (1935-1945), they also made the most ambitious and comprehensive attempt at breeding a 'new aristocracy,' or race of Nazi supermen. This 'positive eugenics' scheme involved breeding select German maidens with promising SS officers or decorated warriors from the *Wehrmacht* and *Waffen SS*, as well as the adoption of babies of unmarried "racially-pure Aryan mothers" by select Party members (Engs, 2005, p. 142).⁹⁴

⁹⁴ As with Axis Italy, the 'Great Patriotic War' cost Germany many more lives than its positive eugenics programs generated, and eliminated great swaths of its eugenic manhood before they could even sire offspring. Many were buried in unmarked graves in forlorn locales across European Russia, if they received a burial at all. As for Fascist Eugenics in Italy, Mussolini never went nearly as far as his German 'imitators.' But *Il Duce's* infamous military blunders in North Africa and the Balkans required Hitler to intervene at a crucial period in the war; diverting scarce troops and limited resources to rescue *Il Duce's* struggling legions. These sideshows wasted invaluable months of good campaigning weather in the short Russian summer of 1941, and in the opinion of many historians, cost the Axis ultimate victory in the great ideological struggle between Fascism and Jewish-Bolshevism, and perhaps the entire war. Of course, all this armchair-general reminiscing of mine was *their* future, as Hitler at the time of Polyzoides' writing was just an ex-convict rabble-rouser and poseur-leader of a radical-right party, in a largely disarmed country in financial shambles.

The sudden failure of *Eugenics/People* shortly before the rise of the Nazis to power thus precluded the opportunity to see any news coverage, editorials or responses to the Nazi's initial eugenic legislation and programs. This included eugenic segregation, compulsory sterilization, and anti-miscegenation (race-mixing) laws, largely borrowed from Harry Laughlin of the Eugenics Record Office (see review of his article about the ERO in the Eugenic Institutions section).⁹⁵ Although by then *Eugenics* was extinct, both the *Eugenical News* and the *Journal of Heredity* offered effusive praise for these early Nazi eugenic policies, though they were much more cautious about the strident Nationalism and increasing anti-Semitism of their German cousins. But that presentation is beyond the purview of this study. As mentioned previously, German eugenics and race-hygiene were given significant news coverage and numerous book reviews in *Eugenics*, and the leading German personalities were hailed in a number of issues. Two brief examples of this international cross-promotion are shown in Figure 4-16i on page 116 of the image file, offering accolades for eugenic progress in Germany and laurels for its long-time leaders. Indeed, one of them (Alfred Ploetz) was given almost equal recognition to Francis Galton, the patron scientist of the AES and its organs.

BEING AN ANCESTOR: Advice and Q&A with Leon Whitney

One of the new popular education features of *People* magazine was a two-page column by AES executive secretary Leon F. Whitney, which combined short snippets of eugenic wisdom aimed at the layman, with a question-and-answer advice column in the style of Dear Abby or Ann Landers. The curriculum concept and education angle was explained on the first page (p. 38), as excerpted in Figure 4-16j on page 117 of the image file.

The first page is primarily an ode to the new breed of biological scientists, such as geneticists, who for the first time have shed the light of science and empirical research on the mysteries of human heredity. It was aimed at providing a new imperative to consider when selecting a mate, or even more importantly, when rejecting a possible love interest on the basis of physical or mental health issues; as should be proper for any concerned potential ancestors to future generations of progressive American thoroughbreds.

⁹⁵ Dr. Laughlin, an AES/ERA insider and frequent contributor to *Eugenics*, would later receive an honorary Ph.D. from the University of Heidelberg in 1936 (Engs, 2005, p. 140-141). He was not allowed to go to Germany to accept this great honour from a grateful new-Germany, as by then Chancellor Hitler had become absolute dictator as *Der Fuhrer*, re-occupied the Rhineland, renounced the Treaty of Versailles, and embarked on an ambitious rearmament program and breeding, building, and indoctrinating a new 'Grande Armee' worthy of Napoleon or Imperial Rome.

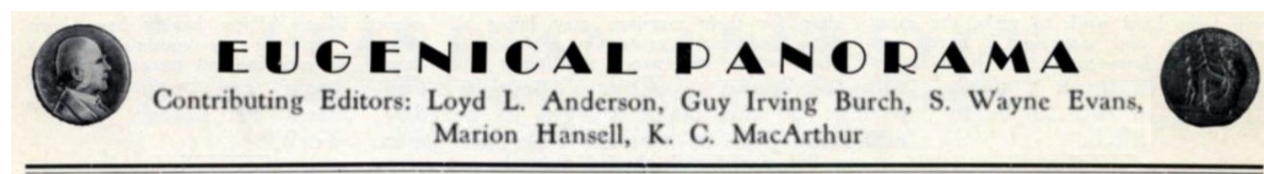
The second page (p. 39), after explaining the importance of placing the priority for mate-selection on heredity rather than the heart-strings, was “the first question and answer department in the field of eugenics and heredity ever offered to the reading public” (and perhaps the last as well). It dealt with only three reader questions, ranging from the marriage of cousins (a perennially popular meme-cluster in *Eugenics*) to the question of career vs. parenthood for ambitious women. The one constant was the over-riding concern on heredity and eugenic potential, over any sentimental issues or individual wants or desires. These eugenic-advice vignettes are presented in sequence in Figure 4-16k on page 118 of the image file, Figure 4-8l on page 119, and Figure 4-8m on page 120.

The final question and answer pairing, also from a female reader, dealt with the inheritance of human albinism. Ironically, this *is* a classic example of simple-Mendelian inheritance of a mutant, recessive gene for lack of pigmentation, though Whitney seemed not to know this, or at least his answer seemed to suggest this is not the case. He took this opportunity to discuss mutations (or ‘freaks’ or ‘sports’ as they were often called at this time) from a layman’s perspective. His prognosis for any afflicted individuals (such as the woman’s cousin) is rather bleak, suggesting they can only survive through the protection and charity of civilized society. The relevant sections of his answer are excerpted in Figure 4-16m on page 120 of the image file.

Had *People* continued past its debut edition, Whitney’s advice column was just the kind of popular feature that may have led to greater eugenics evangelization among the general public. Such features, written in plain language and using literary hooks relating popular concerns about human heredity, were supposed to entice the casual reader into developing a greater interest in hereditarian solutions to the problems facing ordinary families, and by extension to national issues and policies.

Can Eugenics be made Humorous but still Educational?

Another similar new feature, as suggested by a reader letter in one of the later issues of *Eugenics*, was to provide some eugenical humor that would get people thinking, even as they were being entertained. This suggestion was adopted for the premiere issue, with a page of alleged jokes and supposedly humorous anecdotes. Using humour as a memetic vehicle to deliver an underlying message is one of those filter-bypass schemes that allow novel or foreign memes to penetrate an individual’s memetic filters and hopefully stick in the subconscious or conscious mind. The bulk of the page is excerpted in Figure 4-16n on page 121 of the image file. The reader will have to judge for themselves as to whether these questionable bon mots qualify as humor or not.



Following Whitney's advice column, were the reorganized regular departments of *Eugenics*, all rolled-together with a reduced print-size, into the new "Eugenical Panorama" (pp. 40-45). This feature amalgamated the *News and Notes*, *Population* (or *Larithmics*), *Eugenics and the Church*, *Immigration*, *Legislation*, and a newly created department: *Eugenics and Medicine*. Gone, or at least missing from this first issue, is the *Popular Education* department of Dr. Florence Brown Sherbon. Moving to 9-point text and three columns allowed a large amount of text to be packed into these five pages, though it still followed the one-photo per page minimum of the rest of the magazine. A portion of the first page is reproduced below in Figure 4-16o on page 122 of the image file, including an alleged denial by President Hoover that he had denied any part for heredity in creating "deficient children," in a *People's*-riposte to a euthenic-themed story in *Cosmopolitan* magazine (another popular publication that seems to have radically altered its format and target audience since the progressive-era):

Following this, in keeping with the dominant *larithmics* theme of the issue, was a story about the U.S. Senate hearings on liberalizing the provision of contraception advice and services in public clinics, adding to and complementing the earlier feature "Birth Control Steps Out" (p. 27). It conveyed the general tone and key happenings in the senate hearings, focusing on the eugenic wisdom of making birth control more available to the poor and working classes who "needed it most." (p. 40). It included a long list of those who spoke in favour and against the Gillette Bill (S 4582), which would "exempt licensed medical practitioners from the provision of the federal laws forbidding circulation of contraceptive information" (p. 41). This too mirrored the sort of staple features found in previous *News and Notes*, *Population* or *Legislation* departments. A portion of this section is excerpted Figure 4-16p on page 123 of the image file.

The next news brief, illustrated how the editorial staff was actively scanning the popular press for sympathetic and opposing views or narratives. They lauded and copied congruent messages and countered contrary memes or alternate paradigms, like any good military intelligence or propaganda service. The piece consisted of edited tidbits from a regionally-syndicated newspaper article authored by Dr. Glen Frank, the president of the University of Wisconsin.⁹⁶ As a popular magazine, *People*

⁹⁶ Wisconsin was also the academic home of eminent sociologist E.A. Ross and prolific civic-biology author Michael F. Guyer and their colleagues, who were the subject of the December 1928 *Eugenical Institutions* episode (see that section of this chapter for more detail and biographical notes)

was now to be available at news-stands to a greatly enlarged potential market, rather than just by subscription to an elite group; or so they thought. It nonetheless illustrates their vision as a conduit for other popular hereditarian memes, as well as their own in-house content. This piece concluded the national coverage portion, and is excerpted in Figure 4-16r on page 124 of the image file.

Following reportage on the national scene, the coverage turned to the state-level, with short notices of meetings, events, or pending legislation and eugenic action being featured. The last state to be mentioned was Massachusetts, with an excerpt from an article in an unnamed agricultural newspaper by Harvard professor and AES insider Thomas Nixon Carver. Like the previous story on Italian eugenics, it was ripe with farming metaphors that would be understandable to local farmers as well as the ‘new Fascist writers’ of the Italian State. Right after this was an announcement of a couple of international conferences, one in Rome and the other in New York, as shown in Figure 4-16s on page 125 of the image file.

Following the conclusion of what was once the News and Notes section, the other regular departments followed, sans Popular Education. Roswell Johnson’s Legislation column was first-up with news briefs on “Sterilization in Vermont” and a “Test Case” of sterilization legislation in Idaho being featured (p. 42, 43). Next, a new department, “Eugenics and Medicine” (p. 43), representing the new AES committee on “Cooperation with Physicians” presented its program. This largely dealt with how the medical community could assist the AES with its agenda for targeted contraception and eugenic sterilization, but also asked for increased inclusion of genetics and eugenics in the curriculum of medical school training. This new committee’s program is reproduced in Figure 4-8t on page 126 of the image file.

After this, it was the *People* debut of Reverend Kenneth MacArthur’s shortened (in title and allotted space) *Eugenics and the Church* column (see section by that name in Appendix IV for the history and “*Who’s Who*” of that regular *Eugenics* department). It featured memetic countermoves to both the Hoover White House and the Vatican, turning recent policy lemons into a sweet recipe for progressive lemonade. The two brief sections detailing MacArthur’s ‘Progressive Protestant’ response to these twin threats to the eugenics paradigm and hereditarian worldview are presented in full as Figure 4-16u on page 127 of the image file. Both these short pieces include clever appeals to agnostic laymen straddling the hereditarian-environmentalist divide, who are thus still susceptible to being wooed by partisan appeals, like the undecided in an election campaign. Both positive messages to entice and negative memes to discredit the opposing environmentalist camp are deployed.

Next-up in the rotation was a curious return to “Birth Regulation” (p. 44), after such a fuss had been made of its transformation into “Larithmics” in the last issues of *Eugenics*. Apparently the new

Latin derivation, as coined by Yale sociologist Henry Pratt Fairchild had not captured the popular imagination, and so it reverted to its old appellation. The section consisted of a brief but rather complete “definite written program” for the long-standing AES Committee on Birth Regulation. It included point-form meme-clusters on eugenic sterilization, contraception, professional education, and several specific suggestions for future research related to eugenically relevant demographic factors affecting population. As recognized experts in these fields, the academics on the committee were well-placed to receive any resultant research grants or philanthropic funding.

The Epic Swansong of the Immigration Department

The last department to report was Immigration, and it received more space here than any other former regular department in the magazine. It was signed at the end by former Immigration editor Francis Kinnicutt. It began with a review of the debate that had been raging in Congress over emergency quota restrictions to stem the flow of immigrants coming to America to look for work, detailing the political manipulations behind the scenes. It also made allusions to the skittishness of the Hoover administration in appearing to side with the Restrictionist cause, and accused a prominent Republican leader (from New York) of openly opposing the Bill in the House. There is a palpable sense of betrayal here, though the overwhelming support in the House of Representatives for the legislation promised better results in the ‘long session’ that followed. In fact, the worsening Great Depression would do more for the Restrictionist cause in America and other Western nations than all the prior lobbying of the eugenics movement’s stalwarts. The first part of the Immigration column from the Eugenic Panorama is excerpted in Figure 4-17a on page 128 of the image file.

But while the Restrictionist forces were thwarted in their attempts at a near-term legislative victory, Kinnicutt devoted the next section to reporting what could be achieved by administrative methods, and here he could report considerable success that almost made-up for the legislative blockage. This illustrated the considerable power of the State apparatus to achieve the AES’s restrictionist agenda even without formal legislation. This administrative power even extended to the other nations of the Western hemisphere, including Canada, which had formerly been exempt from restriction measures. The relevant section is reproduced in Figure 4-17b on page 129.

The final portion of the Immigration section praised the Canadian government (the regime of R. B. Bennett – Alberta’s first Conservative Party leader, and the first Prime Minister of Canada from Alberta) for its quick action to block the flood of economic migrants to its shores from Europe. It also hailed Great Britain, Australia and South Africa for doing the same thing, and even mentioned Mexico as following a similar path. This was, no doubt, intended to show American readers that other countries were protecting their ‘home labor,’ in the hope of generating additional support for the renewed campaign in the next session of Congress (where the Bill was finally passed with minor amendments to allow certain ‘high quality’ immigrants that would not add to the welfare rolls). The short conclusion of the Immigration section is shown in Figure 4-17c on page 130 of the image file.

Book Reviews and the *Eugenics*’ Book Club

The final section of *People*, as with *Eugenics*, was Samuel J. Holmes’ “Books and Bibliography” column, now renamed “On Review” (p. 46). Like the other regular departments, it was here abbreviated and used fine-print to pack three book-reviews on a single page. All are relevant in regards to topics treated in this and past issues, with a long review of “The Fecundity of Native and Foreign-born Women in New England,” by the renowned economic historian and Duke University great, Joseph J. Spengler, receiving two-thirds of the available space. It is also notable in that it makes specific mention of French-Canadian immigrants to the region and their high fecundity, as being particularly significant in altering the demographic balance of New England..

Of more interest for the future, as the soon-to-be global leader in eugenics and race-hygiene (Nazi Germany) are the last two, shorter reviews, which involved an AES insider and former contributor to *Eugenics*; and prolific *To-day and To-morrow* author J. B. S. Haldane and his second wife Charlotte. These reviews are excerpted in Figure 4-17d on page 131 of the image file, along with the title-header for the column.

After this came the concluding stubs for the *People* Symposium, including a two-column finale of Ellsworth Huntington’s response. This was the longest panelist response to a Symposium question since Madison Grant’s extended response to the National Origins clause (see Immigration section of Chapter IV). And with that, the first and last issue of *People* magazine came to an end. As stated at the beginning of this section, there was no published post-mortem, but the back cover of the magazine may provide a clue as to the sudden demise, as excerpted in Figure 4-17e on page 132.

Shutting-down the Galton Publishing Company, and Rebranding Eugenics and the AES

Besides *Eugenics/People*, the Galton Publishing Company published at least five full-length books in 1930-31, including titles by S. Wayne Evans (*Organized Eugenics*, 1931), Harrison Hunt (see review for his *Biological Aspects of War* in Figure 4-17d), Madison Grant's *The Alien in our Midst* (1930), Leon F. Whitney's *The Basis of Breeding* (1931), and the scholarly text *Mental Tests and Heredity* described in the advertisement on the back cover (310 pages, full cloth covers, 100 diagrams and illustrations). These in-house titles (listed on the left of Figure 4-17e on page 132) were available from the "Eugenics Book Club," along with numerous others at reasonable prices. In addition, the company also published a series of scholarly monographs for the ERO/ERA from 1929-30. There are no listings in the World Cat search service for any publications by the Galton Publishing Company after 1931.

It would seem that poor sales, at what were likely already subsidized rates, not only put a brake on the journal/magazine, but also put a lock on the door of the publishing company. The AES did subsequently publish *Tomorrow's Children* (1935), billed as a "Eugenics Catechism" in the style of the classic Baltimore Catechism (with then AES President Ellsworth Huntington credited as the author). But this later title was published by a different firm (The Haddon Craftsmen Inc. of Camden N.J.).

As mentioned previously, the professional functions of *Eugenics* were to some extent shunted back to *The Eugenic News*, which continued to be published for some years before the ERO was shut down. The *Journal of Heredity*, which had incorporated much eugenical content before WW I (back when Paul Popenoe was the prolific editor) also picked-up some of the load, but these were aimed at the core base of academics and professionals, not the layman or a mainstream audience. It was not until 1954 that the AES again began publication of a specialist journal, as *Eugenics Quarterly*, under the leadership of Frederick H. Osborn, the nephew of Henry F. Osborn. By this time, the old Nativist- Nordacist cabal was dead or retired, and the journal's agenda had switched to demography and social biology for academics and experts. But even with this dilution of eugenic ardor, the new journal did not escape the increasing criticism of the old organization and its agenda, and the journal was retitled as *Social Biology* at the beginning of 1969. In 1972, the AES became the *Society for the Study of Social Biology*, and this was further changed to the *Society for Biodemography and Social Biology* in 1974 (Engs, 2005). See Figure 4-17f on the following page for a photo of this euphemistic attempt to shed the memetic taint of eugenics from the new publication and the reorganized society's agenda.

Frederick Osborn, the new AES figurehead, had already prophesized in his *The Future of Human Heredity: An Introduction to Eugenics in Modern Society* (1968), that in the future, "Eugenic goals are most likely to be attained under another name than eugenics" (Osborn, 1968, p. 104).

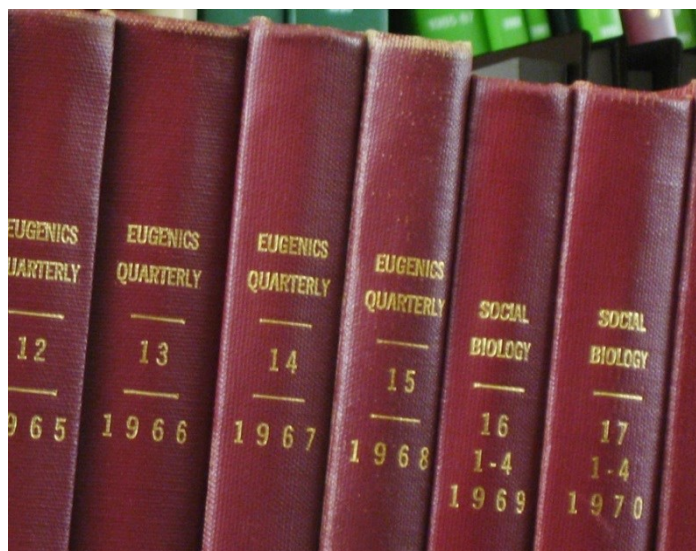


Figure 4-17f: The rebranding of the AES and its resurrected journal (1954) did not occur until the late 1960s and early 1970s, after the civil-rights and feminist movements had branded American eugenics with the Scarlet-letters of racism and misogyny. This rebranding was not complete enough to erase the earlier history though, and intensive scholarship in the 1990s and beyond exposed much of the unvarnished history and indelible markings that had been painted-over or covered-up by the latter-day disciples of eugenics. Hopefully, this study has also helped to preserve a permanent memetic DNA sample of that complicated past, for future reference and forensic analysis.

This concludes my examination and presentation of the *Journal of Race Betterment*, and my coverage of the memes, themes and selected regular features of *Eugenics* as an educational organ for the AES. The still curious reader is invited to peruse those sections in Appendix IV that were not included in this main document. These orphaned sections include “The *Eugenics*’ Symposium,” “Eugenics and the Church,” and “A Representative Trio of *Eugenics* Education Feature Articles.” Each of these sections provide more exemplars and historical context, and additional educational aspects of the journal, but they are not essential for a basic understanding of the prevailing eugenic memes, paradigms and worldviews in America during the height of the movement, or its initial decline. It was the injection of “Progressive Protestantism” (MacArthur, 1930) into the movement, along with the Nordic or WASP racial superiority memes, which most distinguished the American eugenics movement from its British counterpart.

These differences will be further explored and analyzed in Chapter V, when I compare and contrast the *To-day and To-morrow* series with *Eugenics*, and the British eugenics movement with its American counterpart. This exploration will include the astute observations of America by two British *To-day and To-morrow* authors, in J. F. C. Fuller’s *Atlantis* (1925) and C. H. Bretherton’s *Midas* (1926).

Chapter V: Evaluating Eugenics Memes: Yesterday, Today & Tomorrow

This chapter compares and analyzes the eugenics memplexes or paradigms of yesterday, in both the *To-day and To-morrow* series and in the AES's official journal *Eugenics*, for both the Nordicist strain (hardline eugenics) and the 'Reform Eugenics' varieties. I describe some of the common memetic elements in each primary source, and offer a comparison of the two historical movements and their respective influence on Britain and America during the Interwar period. In addition, I attempt to 'sequence' the Nordicist and Reform Eugenics memplexes to illustrate the characteristic memes and meme-clusters that were common to both and more unique to one or the other.

At the end of this chapter, I consider current memetic analogues, in the form of the populist 'White Nationalist' movements that were key factors in the so-called Brexit decision and the election of Donald Trump in 2016. I also present a longer term timeline of incarnations of eugenics, 'scientific' racism and Nativist paradigms. These precursors and antecedents are discussed to address part c of my research question. This macroscopic view will show that these notions were not unique to one period in history. Rather, like perennial plants or hibernating organisms, they periodically re-emerge from dormancy to flower again, plant their seeds and develop roots in the collective consciousness wherever they found fertile soil. This mimics the parable of the sower that Distin (2005) modified for memetic purposes, or Stephen Jay Gould's biological metaphor of the waxing and waning of scientific racism in his *The Mismeasure of Man* (1981, 1995).

At the end of this chapter, I offer a brief forecast for the future of racial-religious memes for political-social purposes amid renewed tribalism and politically hyper-polarized Western societies. These current echoes are based not on 'scientific' racism, but the crude memes and worldview of Nativism and White Nationalism, as purveyed by provocateurs like Steve Bannon or Nigel Farage.

In addition to further examination of the primary historical material presented in Chapters III and IV (as well as Appendix III and IV), this chapter considers two additional volumes of *To-day and To-morrow* that are essentially travelogue commentaries on the United States, written by two distinguished British 'gentlemen:' *Atlantis: or America and the Future* by Colonel J. F. C. Fuller (1925), and *Midas, or the United States and the Future* by C. H. Bretherton (1926). These two volumes offer very prescient contemporary critiques of the American memetic *Zeitgeist* in the mid-1920s, including many perennial eugenics themes and hot topics that were common elements of the eugenically-active volumes of *To-day and To-morrow*, as well as *Eugenics/People*. Although neither Bretherton nor Fuller were centrally involved in the eugenics movement, their accounts nonetheless reflect the influence of the hereditarian worldview and the eugenics movements operating on both sides of the Atlantic.

Mapping the Hereditarian-Environmentalist Memetic Divide

Chromosomal and gene maps have long been a staple of genetics and its education since the tail-end of the organized eugenics movement, as it morphed into the nascent disciplines of medical genetics and sociobiology after World War II. As mentioned in the introductory chapter, the same level of graphical representation or empirical precision is beyond the current state of memetics, except as an analogy with inherent biases and a heavy reliance on artistic license and imagination. What can be done, as I did previously in Chapter II (Figure 2-6 on page 61), is to delineate the spectrum of the hereditarian-environmentalist continuum, as re-presented below in Figure 5-1. Later in this section, I will place each of the selected volumes of the series on this spectrum, in Figure 5-4.

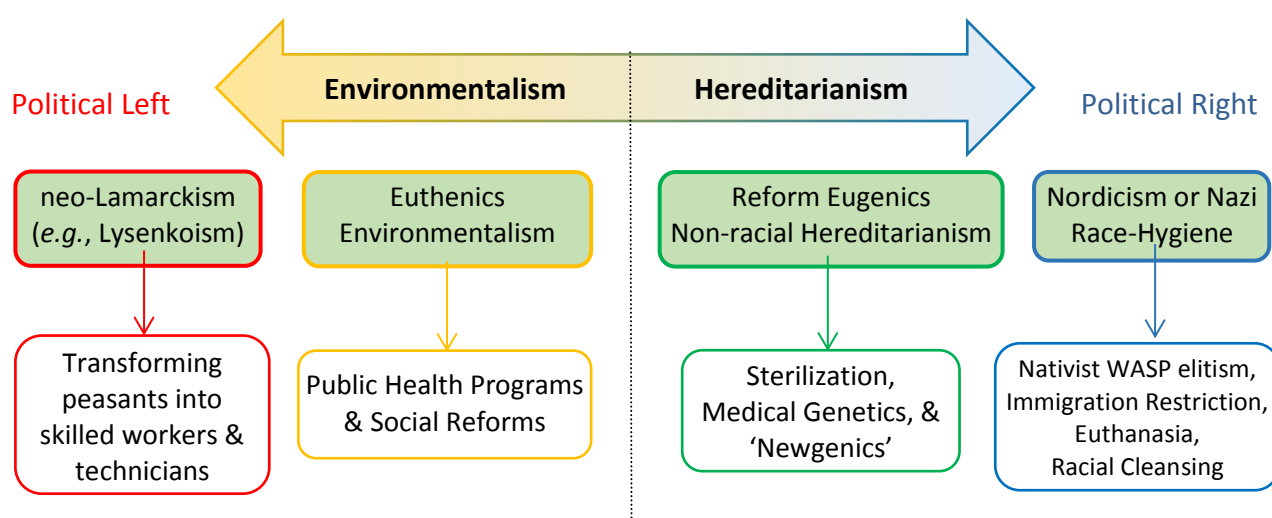


Figure 5-1: The hereditarian-environmentalist spectrum with some typical ‘memotypic expressions’ (the memetic analogue of phenotype) resulting from these complex paradigmatic alleles.

As previously discussed in the introductory chapters and illustrated throughout Chapter III, the volumes of the *To-day and To-morrow* series spanned the full spectrum of memetic possibilities and positions; from the explicit neo-Lamarckism of Russell Brain’s *Galatea* (1927), to the hardline but non-racial eugenics of Norman Haire’s *Hymen* (1928) and the overt Nordic hereditarianism of F. G. Crookshank’s *The Mongol in our Midst* (1924). The large majority fit somewhere in the middle, though the hereditarian worldview was dominant overall. This full-spectrum of potentialities represented a large meme-pool of ideological memotypes and potential futures to be realized by memetic competition and idiosyncratic selection pressures, which delivered different realities in every population or societal alignment in which these memes flowered. While these various potentialities were all present and accounted for within the British intelligentsia of the 1920s, they were realized in novel ways, under various types of democratic or authoritarian regimes, all around the world.

Closer examination of the eugenically enthusiastic volumes of *To-day and To-morrow* reveals many of the same dominant memes found in *Eugenics*, but they largely lacked the Nordacist racial motifs of their American analogues. F. C. S. Schiller's *Tantalus* (1924) decried biological degeneration, but did not propose an explicit racial cause or blame any identifiable scapegoat race or nation. Ludovici's screed against 'militant feminism' in *Lysistrata* (1925) did not call-out any racial minority for special invective, even as it chillingly evoked the Nazi race pogroms against Jews and other '*untermensch*'.

The same is true of Norman Haire's *Hymen* (1928) and Godwin's *Cain* (1928), even though they pushed the boundaries of contemporary American eugenics (into abortion, infanticide or euthanasia) and foreshadowed later Nazi race-hygiene programs. Both were agnostic in terms of defined racial culprits, focusing instead on the poor and the chronic beneficiaries of public charities and welfare. Only Dr. F. G. Crookshank's *The Mongol in our Midst* (1924, 1931) had an overt racial bent with strong hints of Nordic or WASP superiority, but even then, the racist memes were deployed in a medical-academic context, rather than with the racial-activism of coincident American eugenics and later Nazi race-hygiene. It is bereft of overt racial policy implications or any proposed Final Solution. Even Sir Arthur Keith in *Ethnos; or the Problem of Race considered from an Anthropological Standpoint* (1931), was backtracking from the dominant Nordacist racial anthropology paradigm (Beddoe, 1885; Ripley, 1899; Osborn, 1915), which relied heavily on Anglo-Saxon (aka Aryan) superiority memes. Keith soft-peddled any real distinction between Nordics and other Caucasians, only hinting that British Anglo-Saxons were a discernable sub-group worthy of special praise or privileged status.

As mentioned previously, this non-racial strain of the eugenics memplex was typical of British eugenics in general, with the notable exception of the 'Catholic Irish' (or the 'Southern Irish') that were largely non-Nordic 'Bretons,' and who formed a significant portion of the recurring 'social problem group' meme in British eugenics (Pearson, 1901; Kevles, 1987). While this exception may not be a scientific proof of the general rule, it is memetically representative of the British movement during the Inter-War period. This is not to suggest there wasn't overt racial discrimination in Britain or the Dominions, but more due to pre-existing Imperial policies that largely excluded non-White colonists becoming residents in significant numbers, until well after WW II. As a result these racial memes were largely absent in the British *Zeitgeist*.⁹⁷ See Figure 5-2 on next page for a collection of representative Reform Eugenics (non-racial) memes or clusters from the *To-day and To-morrow* series, and the volumes where they were expressed.

⁹⁷ This historical trend makes the recent rise to prominence of anti-Immigrant and anti-Muslim memes in British politics all the more interesting for their growing virulence, in concert with current American and Continental European influences on this same memetic front. Prime examples include the very public racial backlash over the recent election of a Muslim Mayor in the City of London, in addition to the Brexit result and murder of MP Jo Cox.

Negative Eugenics

Feeble-minded and unfit are reproducing much faster than the 'fitter' classes.
Schiller (1924), Blacker (1926), Haire (1928)

Modern medicine and misguided charity are preserving the unfit and frustrating natural selection. Schiller (1924), Ludovici (1925)
Godwin (1928), Haire (1928)

"Irredeemable" sexual deviants or criminals should be sterilized to prevent procreation of their kind and protect potential victims.
Godwin (1928, p. 31), Haire (1928)

'Racial poisons' like alcohol, opioids or tuberculosis cause racial degeneration.
Schiller (1924), Godwin (1928), Haire (1928)

Painless elimination of Mongoloids and other genetically diseased offspring should be viewed as merciful acts of race betterment.
Crookshank (1924), Godwin, Haire (1928)

Modern society has perverted eugenic selection of mates in favour of dysgenic ideals that pervert biological progress and cause racial degeneration.
Schiller (1924), Ludovici (1925), MacFie (1928),

Positive Eugenics

Ectogenesis and other futuristic reproductive technologies (artificial insemination, specialized breeder women and superior sperm donors will transform reproduction and allow systematic racial improvement.
Haldane (1923), Haire (1928)

State provision of birth control and care of children will boost production of fit offspring.
Blacker (1925), Haire (1928)

New laws should be oriented to eugenic principles to emphasize racial betterment rather than individual rights or punishment.
Godwin (1928), Haire (1928),

Proper sex education and eugenics training will result in societal progress and lead to creation of a higher human type.
Blacker (1925), Godwin (1928), Haire (1928)

Wealth and professional-societal status are good indications of the eugenic value of individuals or groups.
Schiller (1924), Ludovici (1925)

Figure 5-2: Common non-racial eugenics (hereditarian) meme-clusters expressed in the *To-day and To-morrow* series, along with the authors that expressed them. Some negative eugenics memes had a mirror-image positive analogue, depending on the eugenic target, such as encouraging prolific reproduction of the 'fitter classes' by limiting contraception to medically-sound regulation of pregnancies. Thus, eugenics technologies could be applied for positive or negative eugenic aims. Note the border colours here only denote positive or negative eugenics; all are non-racial exemplars.

Meanwhile, the series included a few contributions from tentative critics of the faulty science behind eugenics, like H. S. Jennings in *Prometheus* (1925), overt critics like Bertrand (1924) and Dora Russell (1925) from a socialist eugenics standpoint, as well as the openly Lamarckian Dr. Brain in *Galatea* (1927) and the neo-Vitalism of Dr. R. C. MacFie in *Metanthropos* (1928). Figure 5-3 displays some of the euthenic (environmentalist) and neo-Lamarckian memes or meme-clusters expressed in these listed volumes of the series. Figure 5-4 on the following page shows my placement of all the reviewed *To-day and To-morrow* titles on the environmentalist-hereditarian spectrum, as was previously shown as Figure 3-3 in Chapter III.

Some Common Euthenic or neo-Lamarckian Memes in the *To-day and To-morrow* Series

<p>Hormone treatments and modern psychology offer potential for racial betterment and treatment of abnormal individuals. Haldane (1923), Russell (1924), Brain (1927)</p>	<p>Sexual selection of mates (especially by fitter women) is inherently superior to eugenic lore or traditional religious dogma. Ludovici (1925), Brain (1927), MacFie (1928)</p>
<p>Education of boys and girls in sexual hygiene, family planning and eugenics will result in progressive societal improvement. Russell (1925), Haire, MacFie (1928)</p>	<p>The working and middle classes are equally capable of producing superior offspring as the aristocracy or professional classes. Russell (1924), Brain (1927), MacFie (1928)</p>
<p>Euthenic improvements and [inheritance of acquired characteristics – Brain (1927) only] is an equally valid mechanism for societal improvement and racial progress. Russell (1924), Jennings (1925), Brain (1927), MacFie (1928)</p>	<p>Politicians, clerics and other traditional authorities cannot be trusted to make competent decisions about the types of people that should be encouraged. Haldane (1923), Russell (1924), MacFie (1928)</p>
<p>Environment is equally potent (Jennings, 1925) or more potent (Brain, 1927) in producing phenotypic effects to purely genetic factors.</p>	<p>State provision of birth control will result in societal progress by eliminating wasteful spending and misguided charity. Blacker (1925), Godwin, Haire (1928)</p>

Figure 5-3: Euthenic or neo-Lamarckian (environmentalist) meme-clusters commonly expressed in the *To-day and To-morrow* series, along with the authors that overtly expressed them. The red type represents W. R. Brain's sole example of neo-Lamarckian advocacy in the series, in *Galatea* (1927). The review is included in Appendix III, along with a brief description of the contemporaneous memetic analogue of *Lysenkoism* (aka Marxist-Michurinism) in the USSR, under the sponsorship of Stalin (Kohlman, 2011). Lamarckism never really 'caught-on' in the West, at least not 'scientifically.'

Placement of the Volumes Reviewed on the Hereditarian-Environmental Spectrum

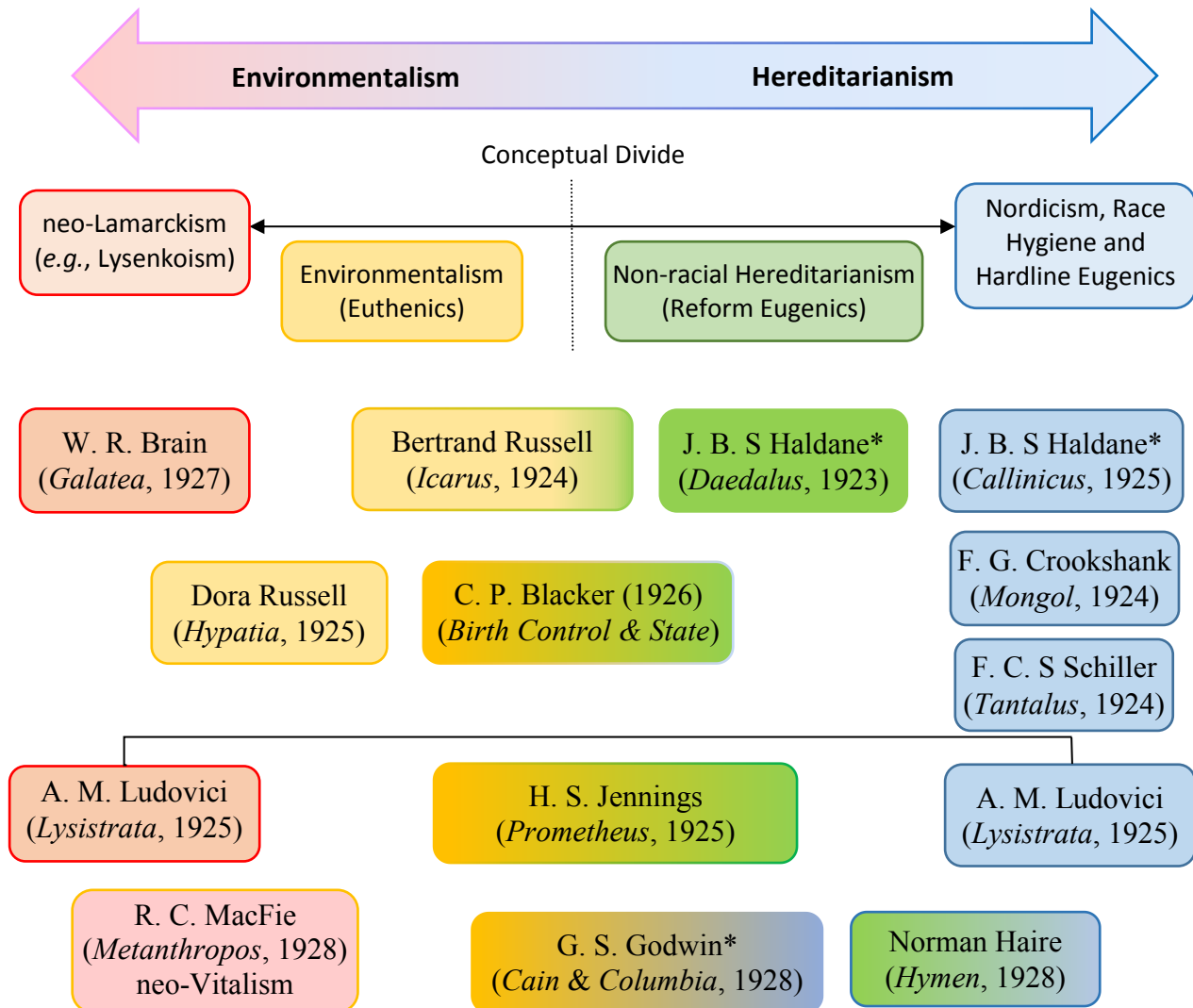


Figure 5-4: My placement of the reviewed volumes of *To-day and To-morrow* on the hereditarian-environmentalist spectrum (as per Figure 3-3). Some authors/volumes are difficult to place exactly as they shifted paradigms or models when dealing with different subjects or issues.⁹⁸ For instance, A. M. Ludovici (1925) employed both rapid Lamarckian degeneration and ‘Androcidal gender-hygiene’ in his scathing attack on ‘radical militant Feminism.’ Only H. S. Jennings (1925) rationally and consistently spanned the hereditarian-environmental conceptual divide, while others like Bertrand Russell (1924), C. P. Blacker (1926) and G. S. Godwin (1928) occasionally strayed into one or the other camps on particular issues or in specific cases. Both Godwin* and Haldane* shifted their stances in their twin contributions to the series. Haldane used more overt racial memes in his

⁹⁸ Note there is no placement here for Sir Arthur Keith’s *Ethnos* (1931). That is because Keith really doesn’t deal with eugenics, although his tacit flirtation with WASP superiority in the book would place him marginally in the Nordacist camp, at least as far as Interwar British anthropology fits anywhere on the continuum. One could make the case that *Ethnos* was an example of ‘Reform Anthropology’ that still displayed its earlier Nordacist pedigree.

second contribution to the series (*Callinicus*), while Godwin shifted away from populist racial memes to class-based eugenics.

Taken in total, these memes and meme-clusters places the Interwar British eugenics movement mainly in the ‘Reform Eugenics’ category of Figure 5-1, with a significant overlap into the realm of euthenics and social-reforms, and even a few latter-day disciples of neo-Lamarckian memes, when they were apropos for public policy or education purposes. Whether this memetic diversity can be credited with the historical fact that British eugenics largely sputtered in academic-professional and aristocratic, upper-middle-class or professional circles is a much tougher proposition, and one I will not attempt to prove, except to provide some relevant quotes from two revelatory volumes of the *To-day and To-morrow* series that documented the differences in the American and British meme-pools or predominant national worldviews. This will be done after considering the American eugenics memplex with regard to the recycled virulent memes that fanned the racial-religious fervor in Trump’s election campaign, or the ‘Leavers’ in the Brexit debate.

The Brexit referendum is an interesting memetic case, as it became more and more a referendum on Immigration and sovereign control over the domestic borders of Britain. The ‘Leave’ campaign made carefully crafted use of simmering xenophobia and racism that had been building since Britain’s full-entry into the EU in the early 1990s, and its consequent loss of sovereignty over immigration quotas and the racial-religious balance of immigrants (CBS News, 2016). This peaked after the 2015 Syrian Refugee Crisis and the growth of ‘Islamophobia’ across Europe and British North America in the aftermath of ISIS-inspired terrorist attacks. This racial-religious fear and loathing was actually encapsulated in a mobile billboard commissioned by the Leave campaign which had been cruising the streets of London and other British cities, hoping to bolster the memes of security, control and selection as to who will be the ‘Britons of To-morrow.’ The billboard’s encoded message helped in delivering a narrow victory for the Leave side. Figure 5-5 on the next page shows the virulent racial memes deployed by the Leave campaign’s visual warning of latter-day WASP race-suicide by alleged invading ‘Muslim hordes’ (CBS News, 2016).⁹⁹ It used only minimal race-neutral text to reinforce the dominant racial-religious memes conveyed by the now infamous image, but ‘sensitized’ or conditioned voters seeing this billboard knew exactly what it meant, even without the words.

While this crude rhetoric is not the carefully edited ‘scientific racism’ evident in *Eugenics*, it is consistent with the raw WASP Nativism exhibited by Bill ‘The Butcher’ Cutter (played by Daniel Day Lewis) and his working-class followers in Martin Scorsese’s *Gangs of New York* (2002), which was based on Herbert Asbury's 1927 nonfiction book of the same name.

⁹⁹ These same sorts of racial tensions and old racial-religious animosities were also actively exploited by the Russian Internet Trolls and Net-Bots, in both the Brexit campaign and 2016 American election, among others (Ioffe, 2017).



Figure 5-5: Independence Party leader Nigel Farage standing in front of the very effective mobile billboard for the ‘Leave’ side in the Brexit Referendum (CBS News, 2016). It helped deliver victory to those whose priority was to “take-back control of our borders” from “The EU” that “has failed us all.” Now iconic visual memes (Muslim refugees fleeing war-torn Syria and Afghanistan for asylum in Europe in the Summer of 2015) allowed minimal racially and religiously neutral text to be used while still delivering the strong memetic impact its designers intended. This ‘letting a picture tell a thousand words,’ also helped to avoid the public blow-back that was triggered whenever Trump’s overt racial-religious scapegoating hit a new climax. Many media outlets showed pictures or video of this billboard, and its unveiling by the Leave campaign’s champions (Farage and MP Boris Johnson). (www.cbsnews.com/news/britain-brexit-voting-eu-referendum-european-union-membership-votes/)

Problem: Without race-based Immigration Restriction, hordes of Muslim Refugees will pour into Britain like a Biblical plague of locusts.

Required Action: Since the EU forbids racial-religious criteria in immigration policy, concerned citizens must vote ‘Leave’ to preserve WASP majority culture in Britain.

Memetic Translation: From Problem to Required Action

After this analysis of the *To-day and To-morrow* series and the prevailing paradigms in the British Interwar meme-pool, I turn to their American cousins across the pond and see how eugenics fared ‘in the colonies’ after its voyage across the Atlantic, from its original conception by Francis Galton in London (Galton, 1904).

***Eugenics* as a Meme-Pool for American Eugenics Memes**

In the case of *Eugenics: A Journal of Race Betterment* (1928-1931), the journal combined the Nordacist-strain of pre-WW I American eugenics, as exemplified by Madison Grant's *Passing of the Great Race* (1916), and the non-racial hereditarianism established by Francis Galton, Karl Pearson, *et al*, in the British ancestral strain. The former was most evident in the Immigration and Legislation departments, as documented in that section of Chapter IV. But, as was seen in certain education-related feature articles (such as Ellsworth Huntington's "The Next Revolution" (1928) in the Birthday Number of Chapter IV) or the eugenic sermons featured in *Eugenics and the Church* (Appendix IV), WASP-supremacy was still the dominant ideology deployed. Until the Black Tuesday market crash in October 1929 tipped America and much of the rest of the world into the Great Depression, this Nativist-Nordacist strain of the American eugenics meme-pool was dominant.

Certain department editors, like Florence Brown Sherbon and the large majority of other female contributors stayed clear of the overt Nordacist rhetoric, although it was quite clear from the context that they were almost exclusively referring to a native, middle-class WASP audience. Only in the few outlier articles, like Rabbi Newman in his "Immigrants and the New America" in the Immigration Number of January 1929, or Rabbi Grossman in the second Religious Number of February 1930, writing on "Some Reasons for Jewish Excellence" (See the *Eugenics and the Church* section in Appendix IV) were non-WASP outsiders offered a small soap-box to present their diversity memes to a native-American audience in any kind of respectful forum. In both cases, however, these 'outsiders' were members of the older German-Jewish (Ashkenazy) diaspora, already partially assimilated in the 'melting pot' celebrated by Rabbi Newman. There was no explicit representation from the Polish or Russian Jews of recent waves of immigration, for whom the restrictionist policies and exclusion legislation of the 1920s was tailor-made.

There was some evidence of a softening of the Nordacist agenda in the later issues of the journal, and in the one-off issue of *People* magazine (see the "End of *Eugenics*" section in Chapter IV). However, it is difficult to discern whether this was a compromise editorial policy to broaden the base of the movement, or an intentional retreat from the 'scientific-racism' memes that underpinned the anthropological paradigm. Some of the most damning evidence against any generalized assertion of a conscious turning-away from the Nordic template can be found in the later editions of *News and Notes* that celebrated German eugenics and race-hygiene pioneers who became stalwarts in the Nazi regime (see the End of *Eugenics* section for examples). The later shift to reform eugenics was really only accomplished after the deaths of prominent Nordacists (like Madison Grant in 1937),

or the retirement of other leading exponents (like C. B. Davenport and Harry Laughlin) at the very end of the 1930s, when it became increasingly obvious that America would be fighting another war against Germany, this time under the Nazi banner (Spiro, 2009). The eugenics movement that survived the Second World War was largely reformed from its Nativist-Nordicist origins, even though Nordics, like H. F. Osborn's nephew Frederick H. Osborn, still formed the bulk of the leadership caste (Tucker, 2002). But that was long after the demise of the journal, and in a memetic environment in which anti-Semitism or anti-Slavic racism was increasingly equated with Nazi Race-hygiene.¹⁰⁰ See the meme-maps comparing Nordicist memes versus their Reform Eugenics analogues deployed in *Eugenics*, in Figures 5-6 and 5-7 respectively.

Unlike the class-based eugenics paradigm of British eugenics that grew out of the prevalent Social Darwinism of Victorian England, from the disciplinary bases of economics and sociology; the Nordicist eugenics of America had different historical roots, disciplinary bases, and a different caste of leading apostles. The racial basis came largely from the 'American School of Anthropology' of roughly the same time period, whose leading exponent, Dr. Samuel George Morton, was once considered the 'Dean of American Empirical Science' and he was the primary subject of a withering critique by S. J. Gould in *The Mismeasure of Man* (1981, 1996). Morton used empirically problematic measurements of cranial capacity in a menagerie of human skulls to argue for the superiority of the Nordic Race and American intelligence and ingenuity, and he created a graduated hierarchy of racial intelligence with Nordics at the peak and 'unadulterated Negroes' at the bottom.¹⁰¹ American Indians, Orientals, and non-Nordic Slavs, Mediterraneans and the like competed for the intermediate rungs, much like the racial anthropology ratings deployed by F. G. Crookshank (1924) in his *The Mongol in our Midst* (see review in Appendix III).

¹⁰⁰ It is illustrative that the only form of 'anti-Semitism' (literally against 'Semitic Peoples' or the Sons of Shem in Biblical lore, which includes Arabs and Jews) that receives *widespread* support in America today is that aimed at Muslim Arabs, including the Syrian refugees so maligned by both Trump and his supporters, or Stephen Harper in the 2015 Federal election campaign in Canada. When this racial antipathy is queried, their disciples deny the racial angle or insist that anti-Semitism be reserved strictly for anti-Jewish cases, or the 'terrorism' meme is invoked. Thus religion has become a preferred proxy for race, as it was during the Crusades or the Reformation and its sequels.

¹⁰¹ Morton and his followers used the 'young earth' theory prevalent at the time, based on Biblical authority from Genesis, to argue for 'Special' or separate creation of the disparate races of man, in which evolution (not a name-brand meme at the time, except in a Lamarckian sense) could not possibly have had time to work its magic. Evidence from Geology and Paleontology (among other fields) made that theory scientifically unsustainable, but empirical measurements of cranial capacity and later of cranial-shape were to become staples of physical anthropology and evolutionary biology/psychology for many decades. It is interesting to note that although cranial capacity as a proxy for average intelligence in modern humans has become something of a taboo, it is still used in some anthropological circles for early hominids and pre-historical humans without shame or self-censorship.

The Nativist movement that grew during the initial waves of non-Nordic ‘New Immigration’ (starting about 1840 and consisting mainly of Irish Catholics, Italians and German Jews) was mainly populated by working-class activists, rather than academics or patricians (Kraut, 1982). This populist movement first introduced a religious bias (anti-Catholic, anti-Jewish) to the calls for immigration restrictions or outright bans of certain groups (such as the original wave of Jewish-Communists fleeing Europe in the wake of the violent Revolutions of 1848-1850, which put ‘terrorism’ back on the memetic map). This combination of antagonistic racial and religious memes predated the formation of the first organized American eugenics organization (the Eugenics Section of the American Breeders Association, established in 1908: see introductory section of Chapter IV). It is this strain of racial-religious xenophobia that the current incarnations of racial bigotry under the Trump, Harper, or Le Pen banner most closely approximates, both in the type of adherents it primarily draws, and in the lack of a firm ‘scientific’ theoretical or quantified empirical basis.

Sequencing the Nordacist Memplex of American Eugenics

As previously outlined in the introductory section of Chapter IV, it was the formation of the Galton Society of America in 1918 that solidified the centrality of Nordacist eugenics in the post-World War I movement. This organization provided the cadre for the top-leadership positions of subsequent organizations, including the American Eugenics Society, to form the “interlocking Directorate of Scientific Racism” (Spiro, 2009, p. 395, 396). This cabal of elite insiders provided the meme-fountains of American Eugenics (like Madison Grant, C. B. Davenport, Harry Laughlin, Johnson and Popenoe, *et al*), and their disciples provided the organizational muscle for the movement and offered memetically consistent interpretations for eugenics education to the masses.

On a macro-scale, the Nordacist memetic paradigm is a complex amalgam of British class-based eugenics (essentially social-Darwinism modified by racial interpretations as to the causes of poverty, crime, vice and other social ills), American Nativism from the latter-part of the 1900s alloyed with early Conservationism, and a strong dose of anti-Semitism and anti-Socialism (or ‘Jewish-Bolshevism’), buttressed with scientific and empirical foundations from racial anthropology. Each of these memplexes could be further dissected and parsed into smaller and smaller clusters of memes, each fitting into a niche or location within the memplex, crudely analogous to the individual genes on a chromosome, or a bacterial plasmid. So, for instance, Nordacist-style neo-Darwinism depends on the empirical certitude of August Weismann’s extensive experiments, and the turn from Natural Philosophy to positive empiricism and falsification experiments as a way of ‘torturing nature’ to

give-up its secrets; as well as the first experimental forays into genetics and embryology, culminating in Mendelism and T.H. Morgan's *Drosophila* Lab at Columbia (Carlson, 1981). Beyond a certain point, however, parsing these meme-clusters into individual memes becomes an exercise in scientific 'historivia,' like counting angels on pin heads. A graphic, interactive illustration of the memeplex of Nordicism and its complexity can be viewed by choosing the 'Connections' view of my entry on Nordicism for the Discover Eugenics website (<http://eugenicsarchive.ca>). The hyperlink here links directly to this view: <http://eugenicsarchive.ca/discover/connections/53d82b204c879d00000000001>. Clicking any of the peripheral tags around the Nordicism hub branches to a vast array of other memeplexes, like a concept-map 'gone wild.' Each of these major clusters consists of numerous individual memes and smaller clusters. A simplified meme-map of the Nordacist memeplex or paradigm is presented in Figure 5-6 on the following page.

The two main exponents of Nordicism in Interwar America were H. F. Osborn (the 'Dean of American Anthropology' of his time) director of the American Museum of Anthropology, as the theorist and senior-statesman; and Madison Grant as the populist and prolific organizer of the movement (Spiro, 2009)¹⁰² These men had a powerful memetic ally in the personage of Teddy Roosevelt (Dyer, 1980) and a coterie of influential aristocrats, technocrats and society icons of the New York establishment (Spiro, 2009). With the formation of the Galton Society, the AES, ERO and the Race Betterment Foundation of Dr. J. H. Kellogg, the interlocking directorates and allied organizations of the American eugenics movement nurtured Nordicism and its allied memes into a vast paradigm of interlocking memes, with integral protective defenses and meme-filters, at the scale of a fully-fledged worldview. Until the deaths of Osborn and Grant in 1935 and 1937, respectively, they largely directed the enterprise from a lofty perch on the Manhattan skyline. By the time of the AES's incorporation in 1926 and the "Birthday Number" of Eugenics was published in late 1928, Henry Osborn was often bedridden with chronic disease (Spiro, 2009), so that Madison Grant took over the mantle of day-to-day leadership, along with the other Galton Society principals.

As was documented in the examination of the Immigration and Legislation departments of *Eugenics* in Chapter IV, it was Madison Grant that served as the man behind the curtain, rarely making a personal appearance in its pages, but firmly in control of the AES agenda and the editorial policy of their journal and other period publications. Grant's *Passing of the Great Race* (1916, 1918) may be considered their memetic bible. Grant was the ultimate authority for the secular 'New Testament' of American eugenics for other disciples like Harry Laughlin of the ERO; who was to

¹⁰² Refer to the Historiography of Eugenics in Appendix II, especially on Grant and the Galton Society as the pinnacle of the 'Interlocking Directorates' of eugenics and scientific racism.

become the primary bridge to Nazi eugenics legislation and racial hygiene policies. American Nordicism may be considered as a memetic Genesis for the Nazi Race-hygiene bible, as documented by Spiro (2009) and more fully explored by Black (2003), once Nordicism was reformulated by German theoreticians and practitioners for their own memetic circumstances and social priorities.

A Partial Meme-Map of Nordicist Nativism in the Interwar-era

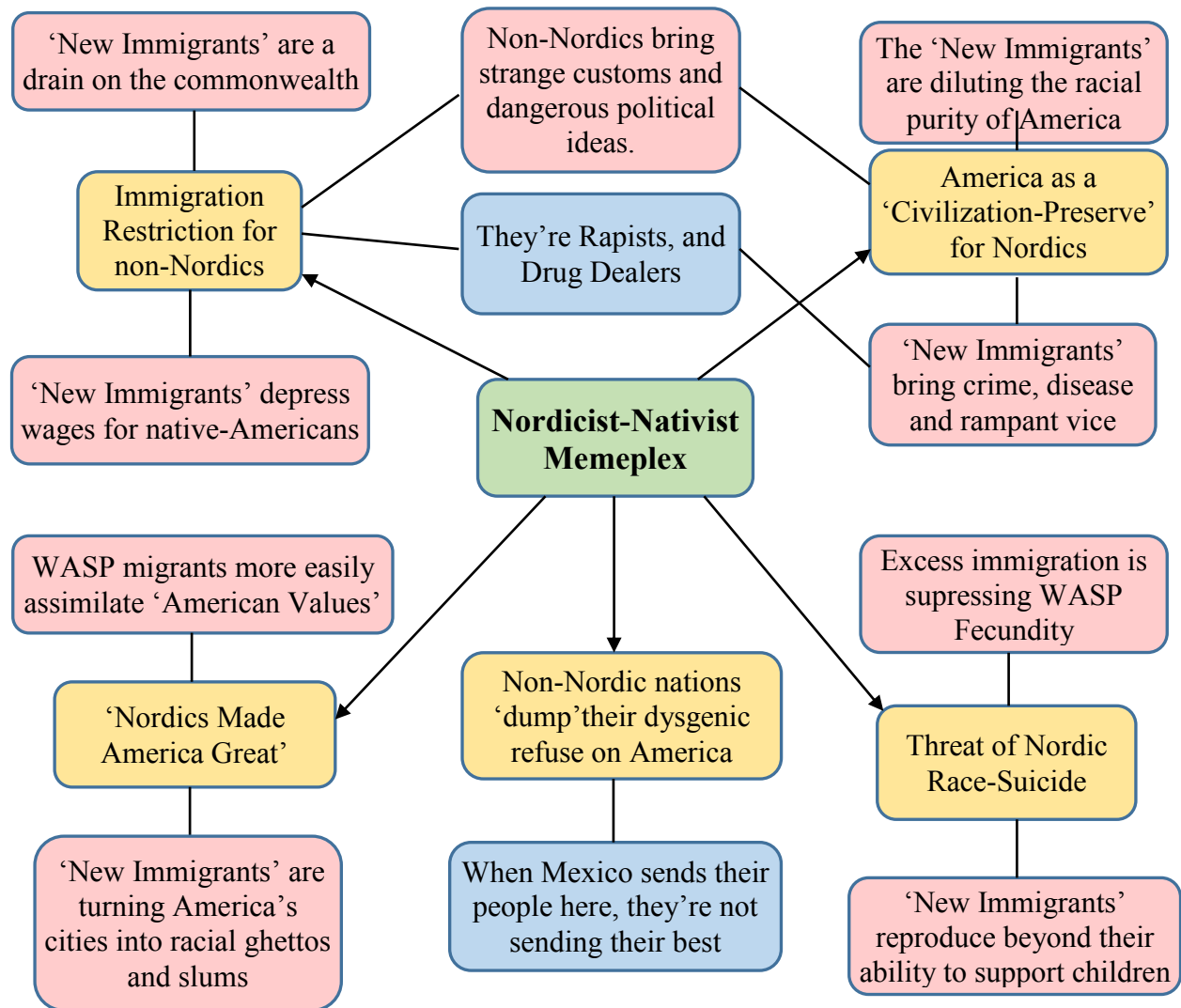


Figure 5-6: A partial meme-map for the Nordicist-Nativist strain of 'hardline' Eugenics. These are just a few of the common meme-clusters and raw memes that were expressed in the pages of *Eugenics* throughout the publication run, but were especially prominent in the special Immigration issues that were profiled in Chapter IV. It is not hard to translate these period memes into the crude rhetoric deployed by Donald Trump, Nigel Farage, Marine Le Pen or other White Nationalists. Simply substituting 'White' or 'Christian' for Nordics would often be enough to turn these memes into a stump-speech for one of these latter-day racial-religious Populists (as in blue shaded exemplars).

The 'Reform Eugenics' Memplex and Meme Clusters in *Eugenics*

In comparison to the Nordacist strain of American eugenics that was prominent in the Immigration department, or in special issues like the annual Immigration Number or the Census Number, most other departments were more representative of the Reform Eugenics (Kevles, 1985, 1995) paradigm. This was particularly true for the Popular Education department, Eugenic Institutions and those feature articles that focused on popular or formal education for eugenics (with a few exceptions). Whether this was by purposeful direction from the journal's editorial board, or just the personal philosophy of the relevant authors is hard to discern, but it seemed to be consistent with the AES's other publications targeted towards popular audiences as well, such as the full-length books *Organized Eugenics* (Evans, 1931) and *Tomorrow's Children: The Goal of Eugenics* (Huntington, 1935).

One can speculate that the idea was to capture the hearts and minds of the progressive public first, by soft-peddling the more easily palatable aspects of eugenics first, before converting the novices into hardcore eugenics disciples. In any case, the less racial memplex of Reform Eugenics could still incorporate subtle dog-whistles of WASP primacy or Nordic supremacy without offending the sensibilities of women or non-Nordic readers, by using coded messages like 'old-stock Americans' or 'American thoroughbreds.' For much of the AES agenda, like Birth Regulation or Popular Education, Nordic superiority memes were either irrelevant or unnecessary to convey the essential message.

To some extent, the dividing-line between Nordicism and Reform Eugenics paradigms also seemed to be a function of the age of the author, or when they became converts to the eugenics cause. Those authors who were old-guard veterans (like C. M. Goethe of California), and those who were inculcated to the hereditarian worldview through anthropology, biology and genetics (like Harry Laughlin) tended towards the Nordacist paradigm, while those who were younger (like S. Wayne Evans) or who came to the movement through the social sciences (like F. H. Hankins) more closely followed the non-racial strain (see Chapter IV for coverage of these personalities). In addition, there seemed to be some geographical basis for their memetic alignment, where those authors located in the high-density cities of the Eastern Seaboard (like Ellsworth Huntington) tended towards the Nordacist end, while those from the Midwest States (like Florence Brown Sherbon) were more comfortable with the Reform strain. Of course, all these factors could operate at the same time. A breakdown of the Reform Eugenics strain in America can be made, as was done for the Nordacist memetic allele in Figure 5-6 previously. Figure 5-7 below shows a partial mememap for the non-racial strain of eugenics in America, as featured in the pages of *Eugenics*.

Meme-map for the Reform Eugenics (non-racial) paradigm, as expressed in *Eugenics*

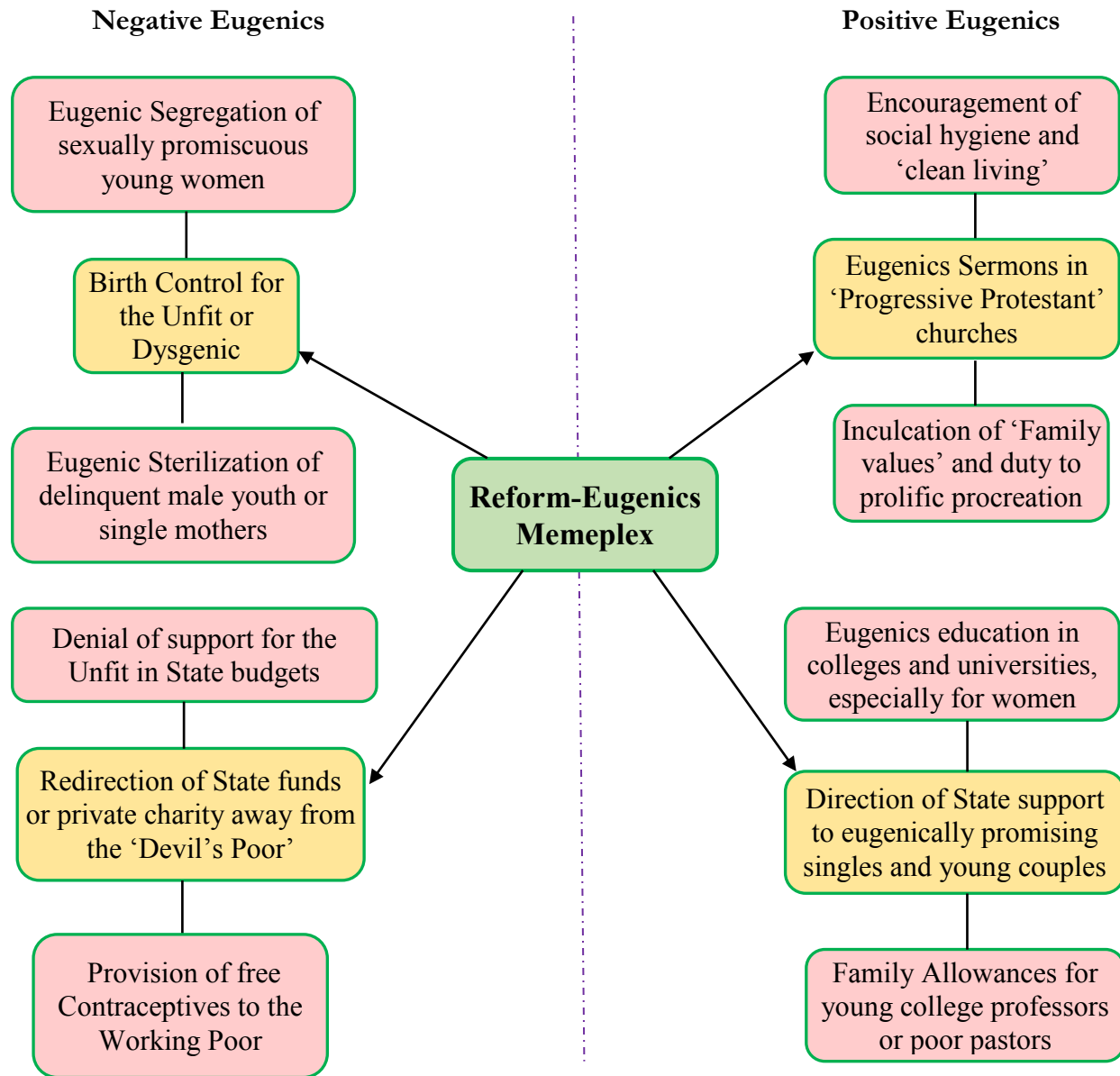


Figure 5-7: A partial meme-map for the Reform Eugenics strain of American Eugenics. Whereas the focus of Nordicist-Nativism was almost entirely on negative eugenics measures (left side here), especially Immigration Restriction, the Reform variety had obvious positive eugenics thrusts as well, as shown on the right side of the diagram. This is by no means a complete map, but includes some of the major thematic thrusts of the non-racial program directed to target audiences.

Of course, the adoption of American racialist policies by the Nazi regime served as a further brake on the American movement during the Great Depression and World War II, turning what may have merely been a recession of Nordicist memes into a long-term retreat and rout. Elements of the Nordicist memeplex were still evident in the post-War meme-pool (see the section on University of Virginia eugenics professor Ivey Foreman Lewis in Kohlman (2013), or the full article by Dorr (2000)), and even in the latter-day eugenics crusade of Stanford's William Shockley in the 1960s. But by then Nordicism was definitely a recessive meme in the popular *Zeitgeist*, replaced by the cruder 'White Supremacy' memes of neo-Nazi groups, radical Far-Right militias, the latter-day Klan of David Duke (Smith, 1993), or the racial-religious memeplexes of Alt-Right ideologues like Steve Bannon and his memetic disciples on social media (Green, 2017).

Although it requires searching through many pages of comments, the Nordicist memeplex is still out-there and active on Internet forums. But it has become submerged in a sea of raw Nativism, far-right Evangelical Christian Conservatism (which Donald Trump has repeatedly cultivated for their political support in some of his more obvious attempts at memetic pandering), and the anti-Muslim, Judeo-Christian xenophobia from the Conservative base in America, Britain and Canada. 'Dog-whistle' references like Stephen Harper's now infamous 2015 Federal election campaign quip about "old-stock Canadians" (CBC News, 2015) have largely replaced the overt Nordicism of Madison Grant and the Galton Society, or their flagship journal *Eugenics*.

Before my own further consideration and analysis of the memetic differences between the British and American meme-pools in the Interwar period, this presentation turns to a pair of revelatory volumes from the *To-day and To-morrow* series, for contemporary eyewitness accounts of the prevailing attitudes in America, as observed and translated by two British 'gentlemen.' These twin volumes take the form of the literary genre of the travelogue, which was very popular at the time. Both are much more critical and intellectual compared to the average travelogue today that potential tourists or casual voyeurs might find on bookstore or library shelves today. Both authors are quite scathing of the cultural poverty and material excess of 1920s America, before the market crashed and America was plunged into the Great Depression. These two memetically expository volumes offer contemporary eyewitness insights into the American *Zeitgeist* of the time, offering a reality check (or reliability review) of post-modern accounts based on more recent worldviews and today's operant paradigms. Together, they offer a fascinating view of an America that was not yet the world's great military-political Superpower, but was already an economic and industrial powerhouse that was on the cusp of Great Power status, equal or superior to the old European empires from which it drew its human material.

A Tale of Two Countries: America through the Memetic Lens of Two British *Flâneurs*¹⁰³

Having considered the British and American eugenics movements and their predominant memes, first separately in Chapter III and IV, then in comparison across the environmentalist-hereditarian spectrum in this chapter and briefly in contrast to their post-post-modern progeny today, I now turn to a related Interwar analysis to bring additional insight to this investigation, from contemporary third-party observers. Three *To-day and To-morrow* volumes shed light on why American eugenics departed from the classical eugenics memes of Galton, Pearson, *et al*, and why America went so much further than the British movement in popular evangelization and political activism. These three volumes examined the United States and its future (much like the two volumes on Canada), and touched upon eugenics and a variety of eugenically-active themes and memes. All three were written by British gentlemen of some distinction, and were published in 1925 or 1926, at the same time the AES was undergoing its incorporation and beginning to ramp-up its mission to evangelize the masses. It is worthwhile to note that there were no volumes in the series in which foreign-born authors critiqued Britain as an outside observer or a *flâneur* of the Imperial metropole. The three relevant volumes are listed below, although only the first two will be considered in detail.

Atlantis: America and the Future (1925), by Colonel J. F. C. Fuller of the British Army General Staff.¹⁰⁴

Midas, or the United States and the Future (1926), by noted author and poet C. H. Bretherton.

Plato's American Republic (1926), by J. D. Woodruff, journalist, prolific author and history scholar extraordinaire, and Oxford Union President for 1923.¹⁰⁵

The tables of contents and promotional mini-reviews for *Atlantis* and *Midas* are shown in Figure 5-8, on the next page.

¹⁰³ The term *flâneur* has a very rich literary history as a memeplex, but here it is meant to convey the Victorian denotation of an adventurous gentleman voyager or stroller, who tours unfamiliar streets, or ghettoized localities, or foreign nations, and provides a travelogue or memetic translation of these exotic locales to fellow aristocrats and genteel ladies, few of whom would deign to make the voyage into ‘the belly of the beast’ themselves.

¹⁰⁴ Fuller (1878-1966) is best known today for being one of two main British theorists of armoured warfare in the Interwar years, along with fellow *T&T* author Captain B. H. Liddell-Hart (*Paris and the Future of War*, 1926). Fuller was a key influence on German military strategists like Heinz Guderian and Irwin Rommel, for the *Blitzkrieg* concept of mobile, combined-arms warfare with large panzer forces as the offensive spearhead. Fuller also wrote a second, quite unrelated volume for the series: *Pegasus, or Problems of Transport* (1925).

¹⁰⁵ This last volume is written in the classic form of the Socratic dialogue, with a time-travelling Socrates and his entourage touring modern America to observe and lecture to “the Barbarians” of America. Although very witty, it is intellectually intimidating, as the metaphors and allusions require a much higher level of wisdom in Socratic philosophy and Greek classics than the poor ‘Philistine’ author of this dissertation possesses.

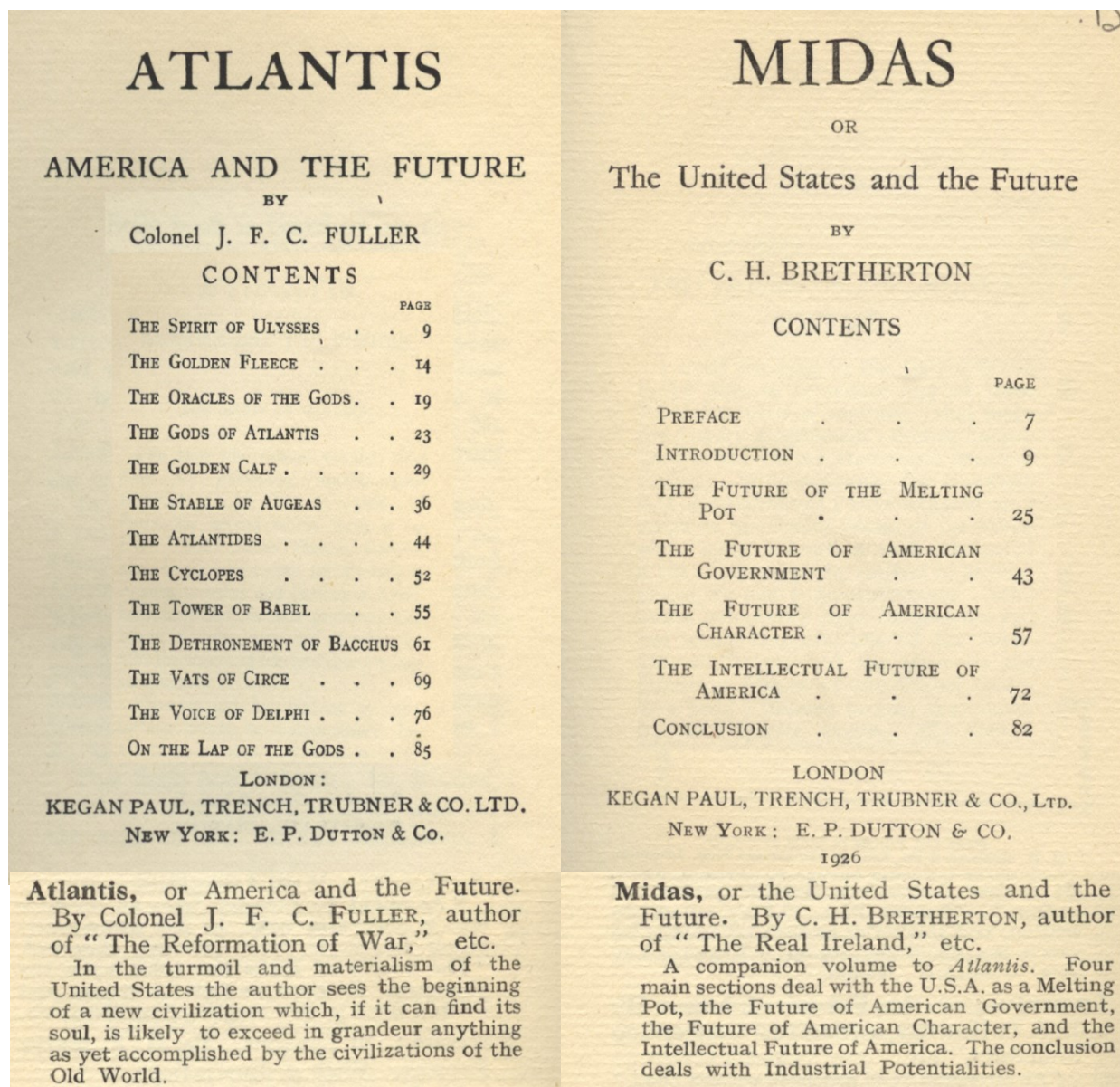


Figure 5-8: The chapter titles for *Atlantis* and *Midas*, along with the mini-reviews for each from the promotional advertising found at the end of each book. Fuller's chapter titles use the essential memes from Classical myth as a memetic scaffold on which to build his impressions of America.

Fuller and his upper-class British compatriots would have been well schooled in Greek and Roman classics at their private schools and elite colleges, upon which their American WASP cousins modelled the 'Ivy League' colleges of New England for their own, much smaller aristocrat 'caste' to be properly schooled in all that mattered in these bygone empires. It is impossible to know now how much actual effect these metaphors and allusions to the glories and monstrosities of the ancient world had on period reader's overall impressions. Fuller's reputation as an Imperial General Staff Officer was likely enough for many target customers of the series to inspire a purchase or read.

Remember, this was before television and the Internet made virtual travel across oceans and continents a quick and easy proposition, and even before an expanding number of movie theatres would have started feeding the public a steady diet of American films, let alone documentaries or film travelogues. Thus, for most British readers back home, these kinds of written travelogues were the primary way of learning about America and their strange Republican ways. Both *Atlantis* and *Midas* played-up their mythical roots, with Fuller in particular getting into the spirit of Plato and his mythology of the great civilization beyond the Pillars of Hercules. This provided a memetic base to use as a substructure for their respective tales. In a way, both are modern adaptations of Swift's *Gulliver Travels* (mentioned by both authors), with America standing-in as the land of Brobdingnag.

J. F. C. Fuller's *Atlantis* (1926) and the Modernist Memes that Made America Great

The text for Fuller's volume was adapted from an article for *The National Review* (January 1925), and was the result of a whirlwind six-week tour of the U.S.A. and Canada, covering some "five thousand miles by land and rather more by sea" (p. 13). Fuller compared his voyage on the *Berengia* (52,000-tons) to the New World to Columbus's pioneering voyage 432-years before on three tiny ships whose total displacement was less than one percent of Fuller's luxury liner. Fuller also compares his mission to Jason of the Argonauts: "We all stood to sea for some definite purpose; Jason to find the Golden Fleece, Columbus a trade route to Asia, and I the Gods of Atlantis, that mysterious country, to-day called the United States of America, which one day will be submerged by legend and myth" (p. 14). Fuller recounts his experience with Americans during the Great War and its aftermath: "big men with big purses... [but] comparatively small brains." He praised their courage in the trenches, while panning their inability to organize or adapt to the reality of modern warfare. He also remarked on his travels to Asia and Africa, and throughout Europe, where he had learned "of the meanings of nationality and the influence of race" (p. 16).

Indeed, much of *Atlantis* is a memetic and racial-religious-social analysis of sub-national American worldviews and habits of thought. Fuller did not hesitate to generalize from a few exemplars or incidents, and enthusiastically extrapolated from idiosyncratic characteristics to the metaphorical gods that rule a race's or a nation's hive-minds. He also invoked the changes in cultural outlook prompted by science, especially Darwin, although Fuller dismisses Darwin's 'dangerous idea' as being little more than an update of Hesiod:¹⁰⁶

¹⁰⁶ Hesiod was a Greek poet contemporary with Homer, and considered a proto-economist and evolutionary thinker.

In my wanderings I had learnt to appreciate the pantheism of Greece. The old gods still lived on, and though men give them names, it is the gods that give men souls. Odin had breathed life into the Teutons, and Krishna had spun dreams around the Hindu. Where one god reigns supreme great nations arise; where there are many gods, then also are there many national outlooks and fusion is difficult (p. 17).

The gods live-on under many names, so common that we no longer recognize their divinity. Such names as geography, climate, corn and coal are familiar to us all, yet they are the gods who rule us, the forces of Nature which make us what we are. In recent years, science has begun to realize this truth, for instance: Darwin, who popularized the struggle for existence and the influence of environment on life and character, did little more than bring Hesiod up to date. The struggle goes on, yet the forces remain the same; names change, yesterday it is Vulcan, to-day coal, and to-morrow oil. Agamemnon and Ajax were great men in their day, and so to-day are Rockefeller and Henry Ford. *Plus ça change plus c'est la même chose*; but you must travel and remove your national spectacles if you would understand the meaning of these words. (p. 17, 18)

Notice, Fuller is spanning the environmentalist-hereditarian divide, and even seems to presage national or racial memes, and their worldviews when combined. His list of modern gods when translated into academic disciplines (human geography, climatology, economics, and evolutionary biology) corresponds to some of the main ‘roots’ of the ‘Eugenics Tree’ (Figure 2-5 and in the ‘Eugenics and the Church’ section of Appendix IV), and also to the professional specialties of some of the principals of *Eugenics* (such as Ellsworth Huntington, Robert DeC. Ward, Frederick H. Osborn, and Charles Davenport, respectively). It is also interesting to note that the two mentioned American heroes of industrial-might: John Rockefeller and Henry Ford, were both big supporters of Nordicist eugenics and race-hygiene (Black, 2003), and even Nazi racial theories in the case of Henry Ford.

In the next chapter, “The Gods of Atlantis,” Fuller described the vastness and radical diversity of the continent and its dominant peoples (there is no mention of the American Indian, nor of Negroes outside the South). He then began an environmental, racial and memetic appraisal of Americans across the nation, and offered a scathing indictment of their dominant memes and Modernist idols:

Though the people of the States, and the Americans are a distinctly plural race, are drawn from all quarters of Europe, they are unmistakably American, since American civilization is European civilization minus some two thousand years. Yet they belong to a continent rather than a country, and, in truth, have no distinct nationality, since their political opinions are forced upon them by geography and climate, the division of the North against the South, rather than by controversy and progress... Spiritually the country is a corpse, physically a terrific machine. Materialism is the tyrant which rules from ocean to ocean, and its backwash is superstition and an effervescing froth of cranks. (p. 28)

Fuller had much to say later about all these memes: the Provincialism outside the great cities of the Northeast, the lack of rationalism or innate curiosity about the larger world, the dearth of real morality, replaced by local custom; and above all, the large number and great variety of ‘cranks.’ Although he did not mention eugenics by name, Fuller gave examples of the sort of social reformers that were common allies of the movement. He dealt with materialism and its effects on the general populace in “The Golden Calf.” His impression was almost entirely negative, from the perspective of a cultured European gentleman, with the singular exception of the cultured class of New England, the old aristocracy of the region, and the Ivy League schools of the Eastern Seaboard:

In the New England States there are centres of learning; in the industrial States there is little time to think; in the South the climate is against the search after knowledge; and in the West, more especially the Mid-West, lies a Serbonian bog¹⁰⁷ of ignorance, as Stygian in its mental density as it is immense in size. Whilst in Europe culture is to be found in all classes, in the States the truly cultured class must form almost a caste of its own. (p. 31)

Fuller explained that among the American masses (outside this small, cultured caste), class differences are almost entirely financially based, not moral or based on intellectual merit; unlike in Europe where there is ‘true’ differentiation: “the upper class does not burden itself with work if it can help it; the middle class normally works with its head and the lower with its hands” (p. 32). In America, by contrast, all are “frantically” busy “building the Temple of the Golden Calf,” so that “the upper class has made money,” the middle class “is making money,” and the lower class “has failed to do so;” in a Darwinian struggle of frenzied greenback acquisition (p. 33). Fuller asserted this struggle for financial fitness had thrown the “true values of life out of gear” in a mechanical engine of wealth generation, in which, to his cultured European eyes, the average American “is little more than human coal,” and he decried the soul-crushing monotony of factory work in “the Ford system” of industrial mass-production during the roaring 1920s, which produced not only Ford cars but also reproduced “the Ford mind” in its worker-drones (p. 34).

Next, in “the Stable of Augeas” (p. 36), Fuller delved into America’s fascination with crime, crime-fighting and the organized mob and rampant corruption it engendered. Crime was something that American eugenicists were also obsessed with, at least the vice and crimes of passion among the unfit and racially undesirable; though not so much with the white-collar variety, or the graft Fuller described as rampant among American officialdom. He opined that “there is probably more crime in Chicago than in the whole of the British Empire” (p. 39). He described the Chicago underworld

¹⁰⁷ Serbonian bog refers to a mythical marsh in Egypt where the shifting sands would periodically blow on top of the marsh and give the appearance of solid ground, only to yield to a traveler’s weight, much like quicksand.

with its parallel cadre of corrupt police and the graft arising from prohibition and anti-prostitution laws. Fuller also bemoaned the regulations and prohibitions resulting from “crank laws” (p. 41), passed at every opportunity by every seat of government. This ‘crankiness’ continued with his negative appraisal of American sport, in which they reveled, but “their sporting spirit is of a low order, and in many cases non-existent,” replaced by an all-out will to win at any cost, aided by “science added to cunning” (p. 42). He somehow blamed all this crime, corruption and bad behavior on the all-out drive for efficiency and quick riches, and to the hive-mind generated by mass-production in the machine-driven assembly-lines of the ‘Ford System:’

He is out to win and, as for relaxation, he replaces it by labour, for it is his business to win. Not only do all means justify the end, but the natural process is to standardize athletics like the Ford Car. The all-round athlete, so famous among the classical Greeks, is replaced by the one-event man, who spends his youth in developing certain steel-like muscles and a narrow skill... The lack of what we in England call sportsmanship is reflected in the manners of the men. (p. 44)

In “the Atlantides” (p. 44), Fuller launched into a detailed anthropological and sociological critique of American men and women; a memetic analogue to F. C. S. Schiller’s tirade in *Tantalus* (1924) against racial degeneration and sliding mediocrity in Britain since the Industrial Revolution. After a hilarious anecdote that satirized the ‘square-jawed man’ revered in America, Fuller appraised the physical countenance of the men, using overt racial characterizations based on Nordicist theory:

The bulk of the men are curiously un-English in appearance, nor do they bear any resemblance whatever to the cartoons of Uncle Sam. Their heads are rounder [brachycephalic] than ours and their faces fuller. They are as tall as we are, if not taller, but they “slip their chests” at an earlier age. The men are very bourgeois, and the long-faced man, so typical of the upper-class in England, is seldom seen. (p. 46)

The American Gentleman, and by gentleman I mean a man of breeding and culture, is a most attractive character, perhaps partly due to his rarity. Generally he comes of old British stock and is proud of his ancestry. He is courtly and generous, hospitable and well-mannered. Unfortunately this class is dwindling, as is generally the Anglo-Saxon stock [shades of Madison Grant’s *Passing of the Great Race*].

If the Anglo-Saxon stock is dwindling the Latin stock is increasing, and the Hebrew stock is rivalling the sand on the sea-shore. New York, sometimes called Jew York, is crawling with Israelites. At Coney Island I literally saw square miles of naked Jews, all stumpy, of a type, all quite impossible. The Negro problem may be a serious one, but surely the Jewish problem is far more so? In less than a generation New York will be New Jerusalem, of this there can be no doubt. (p. 46, 47)

It would be very interesting to know who Fuller's tour guide(s) were, or what their commentary to their distinguished guest would have been; and whether any of these "proper gentlemen by breeding and culture" were associated with the AES or its allied repositories of Anglo-Saxon excellence. Fuller then turned his gaze to the female gender, and here he sweetens, almost to a full-blush, although his praise was brief and quickly moved back to disgust for their brothers and fathers:

The American women stand apart from their men-folk. Many of the girls are extremely pretty and nearly all well-dressed. The most remarkable difference is, however, in their manners. For example, take the girl stenographer class—they are courteous and nice-mannered, and have always a smile for the enquirer, even in Youngstown (the most poisonous city in America), and however hot may be the day. Their brothers are gross, ill-mannered and in their straw hats and trouser belts more than less offensive to the eye. (p. 49, 50)

Fuller went on to describe several 'types' (in the Aristotelean sense) of boorish louts, with the "street car conductor" type getting its own analytical treatment; before returning to the female of the species, where he again gushed in his admiration: "if America is to be saved, it is her women who will save her, for they can hold their own with any of their foreign sisters—they are quite wonderful" (p. 50). Fuller also relied on some anecdotes from an old English friend of the same social-class, for some witty remarks on American habits in comparison to their English betters. He even related a few colloquial hieroglyphics of speech such as "hot dog" and "slap-up-man" (both popular memes), to "convey, in a word or two, the meaning he cannot express in common English," much like a cultural anthropologist would do for the natives of a foreign land (p. 52).

In the chapter on "The Dethronement of Bacchus" (p. 61), Fuller launched into one of several diatribes against "the crank," who was "the recoil" [reactionary force] of the rampant materialism in the American ecological landscape (or memescape). His primary target was the prohibitionists who drove drinking underground and fostered the rampant corruption and gangs that then satisfied people's need for drink. But it could just as well have been the cranks who lobbied for compulsory sterilization of promiscuous waifs or juvenile delinquents, or any one of a number of reactionary social forces unleashed by immigration, strange customs and foreign languages being spoken in the churches and schools. Fuller provided this brief description of the crank typology:

It was the crank that gave us the League of Nations. Similar cranks have stopped cigarette smoking in certain States, and have banned "The Origin of Species" in others, and it was a handful of cranks who fathered prohibition... Bands of howling cranks take Parish after Parish; even New York with its seven million inhabitants—mostly Jews—might well be stormed by a dozen determined fanatics. (p. 61, 62)

After a long explanation of the proper way to drink “ceremonially” with “everything arranged around the bottle—the girl, the roses, the silver, the glass” (p. 63), our guide heaped scorn on the way Americans consumed their alcohol and drowned their materialist misery in cheap plonk. He went on for several pages to detail the differences between social drinking in Britain versus the gauche drunkenness in the underground saloons and speakeasies under Prohibition: “To-day you can still see more drunken people in the State of New York than in the whole of the British Isles” (p. 67).

Continuing on to “The Vats of Circe,” Fuller described another type of crank: the political crank, who was stirring up trouble in the land, and led Fuller to believe that “something must crack: either wages, or industry, or law” (p. 69). Here, there was a paragraph that painted a memetic scene that is both eerily familiar to the scene in 2016, almost prophetic to the point of being startling, and yet strangely different at the same time. It bears quoting in full:

What is going to crack is the “almightiness of the dollar, for out of the crank is stalking the black magician. When a man believes in nothing, or rather, does not trouble himself spiritually about anything in particular, his mind is even more open to superstition than if he is a fervent totem worshipper. So unbelieving is the average American that not only has he no religion, but practically no politics. The Presidential and other elections may stir up his hatred, but they do not awaken a righteous wrath. Democrats and Republicans are as near as Tweedledum and Tweedledee, and are only distinguishable through their mutual dislikes. The result is that any fanatical minority can make an immense noise. (p. 69, 70)

One can only imagine how a Colonel Fuller would react to the 2016 Presidential Campaign; either to the ‘cranks’ that supported Trump, or the cranks who supported Bernie Sanders; or to the possibility of a President Hillary Clinton. From his earlier passages that praised old-stock American womanhood, he may have thought Hillary the lesser of evils. Could any English gentleman from 1925 fathom the legions of cranks that compete for the biggest prize in the world, or the length, intensity and financial cost of a Presidential bid or Senate contest today? It would likely be as bizarre to him as the jousting contests with long pikes and shields, between teams of men (*Polis*, from which the word Politics is derived) from rival villages or towns in ancient Greece would seem to us for resolving political disputes (Parker, 1995, pp. 14-17). I would like to think that Fuller would prefer the Greek method, both in terms of aesthetics and its relative brevity.

Fuller also described a few of “the ‘isms’ and ‘ists’ in the United States that were legion, like the devils in the story of the “Gadarene swine” (p. 71). He narrated a tale of “World Enders, awaiting the crack of Doom” (Robert Reidt and his followers), as well as other religious cranks and a prototype of the American TV-Evangelist, who used AM-Radio to bilk his disciples of their money, and promised an Earthly paradise ruled remotely by God, if only they built a powerful enough

receiver to relay and capture “HIS WAVES in this part of the universe” (p. 73). Lest any readers object “that I have only taken extreme cases,” Fuller retorted that he had “dozens of cuttings from American newspapers, and they are all much the same” (p. 74). He gave one additional lengthy exemplar here of the political crank that is worth relating, both for the recurrence of racial memes in America today, and for its connection to the ‘crankiness’ of the 2016 election campaign:

The “Monkey Trial” in Dayton, Tennessee, shows this quite clearly, and Fundamentalism is a growing force. The question was: Should Darwin’s theory of evolution be taught in the schools? The Modernist said: “Yes,” and the Modernist is not a Medievalist, and as the Fundamentalist is one, he said, “No.” The question of Fundamentalism is to-day a vital one in America, and crops up at every turn. (p. 74)

Fuller described the Scopes “Monkey Trial” as a “ten day orgy” in which “the Fundamentalists represented the South and the West, and the Modernists the North, and the god of Climate smiled” (p 75). Fuller narrated the chaotic scene in the courtroom through press reports, as the nation’s press engaged in a feeding frenzy as the protagonists squared-off:

“Photographers, cartoonists and cinematograph operators” vied with “religious enthusiasts, sellers of soft drinks, monkey mascots and bibles and books on evolution.” Mr. W.J. Bryan, ex-Secretary of State, “threatened if necessary to get the Bible written into the United States Constitution.” In the midst of a raging thunder-storm he “climbed the high mountain overlooking the lovely Valley of the Tennessee river. Speaking at the summit, amid flashes of lightning, Mr. Bryan expressed the hope that a great religious revival, partly as a result of Mr. Scopes trial, was about to sweep the country with Southerners as its leading crusaders.”

Surely there is not much difference between Mr. Bryan and Mr. Reidt [the “World Ender” from his prior example of crank types]; both are on the hilltops awaiting a new world. Fundamentalism is to become part and parcel of the Constitution, just as prohibition became, and, strange to say in this land of liberty, where negroes are enfranchised but not allowed to vote unless their grandfathers voted, it is possible. Circe has replaced Bacchus, that is all. (p. 75, 76)

Next, we heard from “The Voice of Delphi” (p 76), where Fuller came closest to reflecting the memes of Nordicism in *Atlantis*. After lamenting the commonness of “the Cyclops” in America, Fuller admitted there was hope yet for America, for out of the materialism and anti-intellectual dross, may rise a new spirit, like the spirit of pre-Roman Europe that gave rise to the *Great Race* of Madison Grant. While Fuller did not yet use the words “melting pot”¹⁰⁸ here, he referred to the

¹⁰⁸ See the section on the “Future of the Melting Pot” from Bretherton’s *Midas* (1926), later in this chapter for comparison and contrast.

diluting effect of “the cauldron of Circe” on the ‘old-stock Americans’ that the Galton Society of America worked so hard to conserve (Spiro, 2009):

To-day the Anglo-Saxon population of America is being steadily submerged by the broken men of Europe, true descendants of the barbarians who followed Attila, Theodoric and Alaric. And these strange people bring with them strange gods, the ever-latent memories of a Europe now shrouded in steam and smoke. Gods from the icy halls of the North [Nordics], from the sensuous lands of the South [Mediterraneans], and the gloomy forests and plains of the East [Alpines]. Teutonic gods [Nordics], Latin gods [Mediterraneans], Tartar gods [Alpines], all are cast tumultuously into the cauldron of Circe to bubble and to froth. (p. 78).

Fuller imagined that America, although not nearly as heroic as Greece, would in the future become alloyed into a unified people by surviving the crucible of some great test or cataclysm. He related the great differential impact of the Great War on Europe, in which great civilizations were devastated, while America became rich off the profits of arms and support industries (as the ‘Arsenal of Democracy’): “In Europe the Great War was a military earthquake, a great international struggle of wills; in America it was looked upon as a financial episode” (p. 87). And while the war ended an epoch in Europe, it opened new possibilities for America to assume its place among the Great Powers: economically, militarily and politically.

In this rising to prominence, Fuller saw America as a New Rome, rather than a resurgent Greece. He engaged in prophecy worthy of the Oracle of Delphi, inspired by the sulfurous haze of the volcanic vents there. His visions of the future were far-ranging, touching upon memes that were prominently displayed in numerous issues of *Eugenics*, and in other volumes of *To-day and To-morrow*:

Alexander was the herald of Rome, but Rome produced no exalted hero like Alexander, for even Scipio and Caesar were in comparison but little men. But what Rome did produce was a heroic race.¹⁰⁹ To-day I believe that the germs of such a race lie embedded in the materialism of America. To-day Japan may be Carthage, but I cannot imagine Japan begetting a Hannibal¹¹⁰... Whilst Europe is in the melting-pot, and here the vision becomes obscure, perchance America will find herself in the blast furnace of civil war. All men love shedding blood, and if a country is not threatened from outside, then it must suffer from indigestion, that is internal revolution, and to me this seems all but a certainty, for a nation which is fed on gold must grow sick unto death.¹¹¹ (p. 92)

¹⁰⁹ See “Eugenics in Fascist Italy” in the lone issue of *People* (1931) in the “End of *Eugenics*” section of Chap. IV.

¹¹⁰ Compare this with George Godwin’s fear of Imperial Japan in *Columbia* (1928), where he predicted this threat from the Orient would prompt Canada to merge with America to form “The United States of North America.” This did NOT include Mexico, much like Trump’s vision of a divided continent.

¹¹¹ Fuller needn’t have worried about a lack of perceived or real external enemies, but it seems in the last 50-years or so, America has had the appetite for both external wars and internal revolutions of sorts, though none so bloody as the civil-war Lincoln presided over.

Soon, it would appear, though it may be a long time yet, that the United States will be plunged into a religious war. Protestant will attack Catholic¹¹² and out of the ashes will arise the form of religion best suited to the spiritual needs of the nation. Some think that it will be the Methodist Episcopal Church¹¹³ “because this is unique already and is only to be found in the United States.” I cannot say; but what I feel is that the inner form of the struggle will be North against the South, and that religious wars are wars of growth, and that martyrs more so than saints are required before a religion enters into the bones of a nation, and reveals that it has a soul.¹¹⁴ Without this revelation the people of the United States must remain the most criminal nation on Earth. (p. 93)

Although Fuller’s travelogue continues for a few more pages, he never hit the same heights of prescience again, and contented himself with a recapitulation and expansion of the same themes he had introduced in his inspired visions as the Pythoness of New Atlantis. Although Fuller fared no better in his predictions than his fellow series authors, what is most interesting to me is his memetic treatment of the subjects. He blended the classical memes of ancient Greece and Rome with his native Imperial British worldview, to bridge the Atlantic and provide some familiar context to those cultivated readers, who like him, had been the beneficiary of a classical education at elite British boarding schools and the ivy-encrusted universities of the British Establishment. Fuller echoed J. B. S. Haldane and F. C. S. Schiller in using the classical myths and legends to frame and flesh-out the modern memes they were explicating; in the same way as the ancient Greeks used their myths and legends to educate their populace and explain their cosmology and worldview.

Now, after seeing Fuller’s mythologically inspired account of America as the New Atlantis, it is time to switch-over to Fuller’s *To-day and To-morrow* colleague, C. H. Bretherton, for a comparison and some contrast. Bretherton, although not as well-known as Fuller, was more than a short-term *flâneur* in America, having lived in California for a few years before the Great War.

¹¹² Fuller obviously got the timing and protagonists wrong in his “religious war,” and left the Jewish faith out entirely, after his earlier prediction of the future of New York as “Jew York,” a term Madison Grant also used frequently (Spiro, 2009). It was the ardent support of America for a resurrected Israel that later led to the great “War on Terror” and its sequels and aftermaths, and made the Catholic-Protestant tiff rather tame in comparison, unlike the Ireland in Fuller’s contemporary backyard. Perhaps the animosity carried in the memes of his WASP hosts directed against Irish Catholic and French Canadian immigrants in America (due to Nordacist memes as much as religious ones), blended with his own Imperial British attitudes in regards to “the troubles” in Ireland (before, during and after WW I).

¹¹³ Compare this to the ‘Progressive Protestantism’ of the Reverend Kenneth C. MacArthur in “Eugenics and the Church” and the included *Eugenics*’ Symposium that debated the question: “Is Eugenics Scientific Calvinism?: Is it Race Snobbery?” in Appendix IV. Episcopalian, Methodism and its cousin Calvinism were quite influential among the Nordic leadership of American eugenics, including stalwart Madison Grant.

¹¹⁴ Fuller did not predict anything like the civil-rights movement or the counter-culture revolutions of the ‘60s & ‘70s, although one could easily place these in the category of civil conflicts. Race-riots, assassinations of civil-rights leaders (MLK, Malcolm X), or sympathetic politicians (the Kennedys), a growing hostility to Arabs and Muslims since 1948, blended with Cold War memes and all the wars since, have circuitously led to the 2016 political milieu in which a GOP candidate threatened civil revolt if his Nomination was blocked by the Party of Lincoln.

C. H. Bretherton's *Midas* (1926): Mining and Smelting the Memes of America.

Like several other major topics in the *To-day and To-morrow* series (the future of Canada, Mankind, Marriage, Medicine, Morals and Morality, Science, War, and Women, among others), America was treated by multiple authors, from various perspectives. This is right from the mission statement of the series (see series description and advertising in the introductory section of Chapter III) and the three volumes devoted to America mirrored that mission. Although Bretherton was better known as a popular author (as opposed to being a specialist in military strategy and history, like Fuller), and was doubtless schooled in the classics, Bretherton paid very little attention to the legend of King Midas, or the gods of America. Instead, he wrote a conventional narrative appraising the state of America from the four main perspectives identified in the plain-English chapter titles. Bretherton was a “Liverpool Catholic” by birth, a lawyer and journalist by trade, and a fervent ‘Loyalist’ to the British Empire by choice, despite living in Ireland through the war years and witnessing ‘the Troubles’ that ensued (McNally, 2014).

He left for America again in 1924, back to California where he had practiced law and worked as a journalist. While ‘away’ he wrote the *Real Irish* (1925), about his time in Dublin and *Midas* the following year, about his experiences in America. As a long-time resident, he was much more qualified to pass judgment on his American subjects, and yet he found a way to seemingly apologize for his experience, as a wry way to pan his fellow British *flâneurs* who wrote of their brief tours with such amazement and awe:

I lived too long in the United States to be able to reproduce any of those “first time careless raptures” that make the literary Englishman’s fleeting impressions of the United States such excellent reading. To compensate for a certain lack of sprightliness, I have conjured up a vision of the United States of the future whose fabric is based on such substantial if not inspiring matters as history, geography and political economy. (p. 7)

Whether Bretherton was referring at all to Fuller’s earlier account is left to the imagination, but the American travelogue sub-genre was a well-established memetic template in Britain well before either’s contribution to the series. As one would expect, there was a significant overlap in covered themes and their constituent memes, including numerous perennial eugenical issues.

As a practicing lawyer, Bretherton devoted significant space to the topic of the law, and like Fuller, he noted the bloated mass of arbitrary laws and ‘crank’-inspired legislation, although Bretherton repeatedly used the term ‘Fundamentalist’ to describe this driving-force of American civil-Puritanism. He invoked the biblical analogy of the Tower of Babel to explain the memetic

confusion over such motherhood-and-apple-pie terms as civilization, democracy, progress, and justice. He managed to blame “Science” for this state of affairs, and “Fundamentalism” as a reaction against it (p. 9). His ideas here presaged Richard Dawkins’ notions on the low-fidelity of vertical and horizontal transmission of complex memplexes, being as culturally and ideologically bound as they are, as well as the hardened positions of the Fundamentalists and their vocal disciples and social-reformer cadres. Bretherton quantitatively and qualitatively compared the American and British legislative systems, and their effects on the two publics:

Not the number or excellence of a country’s laws but the extent to which they are obeyed is the real test of its civilization. In the last ten years the United States have passed over five hundred thousand legislative enactments. In the same period Great Britain passed seventeen thousand. At the same time fifty murders are committed in the United States to every one committed in Great Britain. Obedience to a law is not its sole test. It must be a voluntary inspiration in the popular will. In Mexico under the Diaz regime there is remarkably little crime, but this was due not to respect of the law but to fear of those charged with its enforcement. The same was true in a lesser degree in regard to Ireland and Russia. (p. 10, 11)

Bretherton compared the ideological poles and primary purveyors of the memetic alleles that drove legislative debate and action: from anarchists (p. 11) to socialists, old Tories, biologists and other “learned and divine” (p. 15), spanning the range from religious Fundamentalists to secular atheists, and across the memetic spectrum from obligate environmentalists to strict hereditarians. He also highlighted the difficulty of establishing a homogenous meme-pool in a multiethnic democratic nation. A brief passage will illustrate the span and complexity of Bretherton’s exposé of the legal quandary facing lawmakers in satisfying the disparate constituencies they serve:

To the honest biologist all religion is unenlightened. To the consistent Tory education is a calamity and there is still much to be said for an enlightened system of slavery. The Socialist can see nothing good in the capitalistic system and the competing claims to pre-eminence of republics, autocracies, and limited monarchies, of elastic and rigid constitutions, of representation and delegation, of direct primaries and proportional representation and the other panaceas that the political flesh is a prey to, are all tried subjects of heated debate. (p. 15)

Although the concept of memes came four decades later, the memes at play in the American *Zeitgeist* of 1926 were remarkably similar to many of the memes deployed by Donald Trump in 2016; the main difference being the targets of immigration restriction, and debates over gay or transgender rights instead of Negro’ or women’s suffrage. Isolationism, protectionism, the economic costs of welfare and other government social programs; these memes have remained remarkably consistent.

Bretherton's Coverage of the simmering American Melting Pot

Of all the chapters of *Midas*, the one with the most eugenic and racial memetic import is Bretherton's expose on "the Future of the Melting Pot" (pp. 25-42). Whereas J. F. C. Fuller seemed to be a firm hereditarian who occasionally swerved over the dashed-line into the environmentalist camp (euthenics), Bretherton seemed to be more at home in the environmentalist worldview, with occasional forays into mild neo-Lamarckianism. Bretherton began this chapter with a lesson in geography and demography, contrasting the densely populated urban centres of the Northeastern Seaboard, with the sparsely settled regions of the Midwest and Western states. He gave a credible history lesson on the demographic transitions from the original pioneer stock, to the first permanent settlements and towns, to the springing-up of new cities, and the types of immigrants each stage attracted. His nation-wide narrative paralleled the kind of racial and demographic changes that were described by C. M. Goethe in his description of the settlement of California in "The Influx of Mexican Amerinds" in the January 1929 issue of *Eugenics* (see section on Immigration and Legislation in Chapter IV); but without the Nordicist memes and race-suicide warnings for WASPs in the Golden State. Like George Godwin lamented in *Columbia* (1928), the most difficult stage is the initial settlement of a hinterland area; one in which typical 'New Immigrants' are ill-suited:

Getting the right kind of settlers, or indeed any settlers at all, for large areas of virgin country... is a heartbreaking business. The would-be immigrant is generally the human surplusage and often the human detritus of some overcrowded industrial district. The city-life is in his bones and if harsh necessity or some fleeting mood for adventure does send him into the wilderness, he either goes under or flees back to the city. Europe has long-since ceased to teach men and women to bear loneliness and be self-reliant. (p. 26)

But America was already becoming urbanized in many districts that had been colonized only a few decades before: a good case being Oklahoma that "was successively a Indian reservation, a farming state and a rapidly developing exporter of oil, coal and natural gas to the cities of the Cotton-belt" (p. 26). Later, Bretherton adopted an immigration restrictionist stance and advocated for a period of little or no immigration to allow the American melting-pot to perform its Lamarckian magic upon those newcomers already in-country:

The United States to-day [with a 1925 population of 110-million people (p. 25)] has got enough people to produce sufficient for all things it can produce, and to export in exchange for an adequate supply of the things it cannot produce. If another fifty million were added to its population to-morrow they too might be employed in producing enough for their own needs, but their coming could not in the nature of things be of the slightest material benefit to the hundred millions already *in situ*. (p. 30)

On the other hand, there are a score of ways in which they might be a great nuisance if nothing worse. They might lower the physique, or the morale of the community. Many of them might turn out to be unemployable, and in any case the business of absorbing them into the productive life of the nation would be expensive. Their coming might have undesirable political consequences. The United States, having considered all these matters, have come to the conclusion that a further increase of the population by immigrants from elsewhere is not desirable. Since the war they have cut down the invading army of opportunity seekers to a maximum of less than one per-cent of the pre-war figure, and those best able to judge believe that within the next decade the door will be banged, bolted and barred in the face of Europe's surplus millions. (p. 31)

In these two paragraphs we essentially have a brief non-racial recapitulation of the AES's position on immigration restriction, although Bretherton did not deign to reveal the identity of "those best able to judge" (p. 31), or how they came to their conclusions. Although the AES was not officially incorporated until the year *Midas* was published, and had not formed State-chapters across the country, there were still numerous 'cranks' or 'Fundamentalists' (like C. M. Goethe) who were glad to spread the gospel of anti-immigration memes. But it is worth stressing that Bretherton did not engage in the kind of racial scapegoating and stereotyping that Goethe did in 1929, or Stephen Harper did with Muslims in 2015, or that Donald Trump is doing today with Mexicans and Muslims.

Bretherton predicted that with immigration restriction in place, the American population would remain under 200-million by 2000 A.D. He forecast, through some unexplained neo-Lamarckian transformation or rapid evolutionary speciation event, that within a century or so, the American of the future would become "a super-Occidental capable, by virtue of his infinite racial variety of impressing his culture, for better or worse, on every European race that has contributed to his polychromatic ancestry" (p. 32). Although Bretherton used the word race repeatedly, he was always talking about White Europeans, not the Negro population (which he treated separately afterwards). In this passage and others, he was using the word 'race' in the same way as the confirmed neo-Lamarckian Teddy Roosevelt (Dyer, 1980; Spiro, 2009), as a substitute for nation of origin; rather than in the Nordicist sense of the fine-parsing of Caucasians into numerous sub-races (Alpines, Armenoids (such as Jews), Mediterraneans, Nordics, etc.) that populated the pages of Grant's *Passing of the Great Race*, or in C. M. Goethe's anti-Mexican Amerind screed in *Eugenics*, as profiled in Chapter IV.

Next, Bretherton described the "negro problem" (p. 33), its memetic effects in the Old South, and even the influence of the Ku Klux Klan. He detailed the 'Great Migration' of Blacks from the segregated South to the mills and factories of the North, as the Great War offered new opportunities for unskilled factory workers, with better pay and working conditions than the cotton

fields that they fled in droves. At the same time, Whites from the north were moving south to take skilled-labour positions in mills and factories, as the Deep South underwent its own belated Industrial Revolution. Thus, by “spreading-out” and with their place being in-filled by Whites in the south, the Negro was “ceasing to be a political problem” (p. 34). But the dispersed Black man became more of a social problem, according to Bretherton, because it became more difficult:

... to keep them in a social world of their own, to segregate them in coloured schools, and universities and trade unions, and confine them by law or custom to their own ball parks, cinemas, residential districts and so forth. This is particularly true of the Northern industrial towns thickly populated with comparative new-comers from Middle and Southern Europe, who have not the same innate dislike to mixing with the coloured races that is felt by the older United States stock. (p. 34, 35)

Thus for Bretherton, the ‘colour-line’ seemed to be fixed on the Caucasian-Other Races divide, as opposed to the true Nordicist shunning all but Anglo-Saxons (and preferably the Protestant variety), in a memetic precursor of Harper’s ‘old stock Canadians’ (CBC News, 2015). Bretherton made very little mention of Mexicans or other Latinos, despite his perch in California, nor did he deal specifically with Jews, unlike Fuller’s rant about “Jew York” in *Atlantis*, or in Madison Grant’s (1916) racial gospel. Bretherton continued the discussion of the “negro problem” and proposals for segregating or ghettoizing blacks, and he debated the pros and cons of these schemes, but admitted the Negro race was “making extraordinary progress in the acquisition of both property and education” (p. 36).

Bretherton then turned again to the “blood that flows in the veins of the white American people” (p. 36), in a passage that came the closest to a sort-of folk-eugenics and to reflecting the racial attitudes of Sir Arthur Keith in *Ethnos, or the Problem of Race* (1931). Here, he was obviously borrowing from American eugenics literature. While there were no quoted sources, the reader should be able to recognize numerous popular memes that were displayed in the Immigration and Legislation section of Chapter IV. Bretherton used nations or geographical regions as proxies for race, much like Labour Secretary James Davis did in the pages of *Eugenics* in the first Immigration Number (1929), rather than the explicit racial terms employed by the Nordicists to represent the offending white races contesting Anglo-Saxon hegemony in America. In a way, this section was a greatly condensed version of the Immigration department of *Eugenics*, and bears quoting extensively as a memetic reminder and checklist of previous themes:

The blood that flows through the veins of the white American people is a mixture in varying proportions of the blood of all the various races of Europe most of whom are themselves unanalyzable *mélanges* of diversified tribes, conquering aristocracies and what not. It is claimed to be Anglo-Saxon or British in origin to the extent of fifty-two per cent., but this figure is greatly exaggerated. It is certain however that if we leave out of account not only the unassimilated races, negro, Chinese and Japanese, but also the Middle and South European hordes that have swarmed into the United States in the last few decades and have not yet had time to be absorbed, we find the blood of the American people to be preponderatingly Anglo-Saxon, Irish and German. (p. 36)

But what will be the position in, let us say, seventy-five years from now? In the first place all the millions of Russians, Greeks, Poles, Portuguese, Italians, Slovaks and miscellaneous Mittel-Europeans who have reached the land of opportunity in the last thirty years or so will have become unidentifiably absorbed in the mass of the population. In the first few decades after their arrival in a new country races always tend to “keep themselves to themselves,” as the char ladies say, but this does not last long and is generally the result of economic conditions. In Massachusetts at the present time we find one city with Irish as its prevailing element, another close to it with Portuguese, another with Italian, a fourth with French Canadian and so forth. (p. 36, 37)

For now, Bretherton assured readers that the “old stock American” had dominion over the land as “the Man at the Top, the store owner and bank manager, the political boss, the captain and director of the vast industrial machine” (p. 40). He maintained his dominant position through “a virtual monopoly” of the fields of “education and the dissemination of knowledge” (p. 40). This echoed the prime importance the AES placed on eugenics education in, and confirmed the ‘race-prejudice’ expressed by Rabbi Newman in his tirade against the exclusivity of private Ivy League colleges in the Immigration section of Chapter IV. But that dominion was slowly shifting west, as the old-stock Nordic was fleeing “before the invading hordes, taking his brains and enterprise with him” (p. 40). Bretherton also echoed Grant’s *Passing of the Great Race* (or the self-exile of the High Elves of Middle-Earth at the end of Tolkien’s Ring-Cycle), with his prediction of final race-suicide: “The last American who can trace his descent back through five-generations of wholly Anglo-Saxon ancestors will expire somewhere about 2025 in the island of Guam” (p. 40). So while the formerly meek shall inherit America from their Anglo-Saxon masters, these “newcomers” to the “land of Liberty” became Americans “the day they reached Ellis Island” (p. 40) and were quickly shaking-off their European ways and beliefs and becoming fused into a sintered block, as an alloyed race.

In Bretherton’s worldview, the catalyst for racial fusion was the environmental shock of the Great War, which he asserted had a rapid transformational effect on the collective psyche [much like Collectivism was supposed to transform the rural Russian peasant into the ‘New Soviet Man’ (Kohlman, 2011)].

When the war was over, the horrific events overseas and the domestic revival of old nationalist and racial antagonisms acted as a powerful incentive to forge the swords of European Nationalism into American ploughshares, and resulted in a retreat into long-term Isolationism. These isolationist-protectionist memes were echoed by Donald Trump and Bernie Sanders in their populist campaigns of 2016. Obama did much the same in the presidential campaign of 2008, at least in regards to opposing the prior Bush/Cheney adventurism in the Middle-East, before slipping into the same geo-political quagmires; thus inheriting the loathing of right-wing ‘cranks’ and ‘Fundamentalists’ ever since. It seems every new President once ensconced in office is presented with certain global realities and pressures that steer them towards the Establishment worldview.

The passage that followed effectively ended the Melting Pot chapter, and will be the last section quoted from *Midas*. It also betrayed Bretherton’s innate environmentalist bent, when he is using his own voice, rather than drawing on those American eugenics experts “best able to judge” (p. 31). The passage was selected not for its deep connection to racial memes or eugenics, but for its exquisite irony, which should dispel any idea the reader might have that Bretherton really had a ‘Midas Touch’ when it comes to prophecy, or even as a proto-memetic savant and oracle ahead of his time:

The great war shook them all mightily, reviving old, dim race antagonisms and international jealousies, setting the German to hate the French, the Italian to conspue the Slav, the Pole to thirst for the blood of the Prussian and the Irish to conspire against the British. The United States went into the war belatedly but as a people that had wrestled mightily with itself and became united in the process. So, at least it is said, though others claim that it was the native born, money controlling, educated Anglo-Saxons that compelled the die to be cast. In any case, the people of the United States will never again look towards Europe with anything resembling emotion. They may allow their rulers to throw their weight about a bit in world politics. They may even take part in some punitive expedition organized by the League of Nations if that curious organization should survive. But they will never again allow themselves to take sides, one side or all sides, in a European squabble. For America the Great War really was a war to end war. (p. 41, 42)

Of course, America defied Bretherton’s prediction and again became belatedly embroiled in the Second World War and many others afterwards, serving as the ‘Arsenal of Democracy’ again, and then as a full-fledged combatant after the attack on Pearl Harbor. In time, and for a long time, America became the ‘World’s Policeman,’ voting itself Global-Superpower-most-likely-to-Intervene. Furthermore, immigration restriction was delimited after the War, particularly for Jewish refugees fleeing the horrors of Nazi Race-hygiene pogroms, and for displaced persons of many ethnic groups fleeing the Soviet steamroller as they swept through Eastern Europe, heading for Berlin and Vienna.

In any case, there was no rapid assimilation of all the ethnic groups present in America as the first restriction legislation went into effect, and even less after World War II, as new waves of huddled masses poured in, not only from Europe, but eventually from non-Caucasian regions that had been almost completely excluded. With the repeal of the Johnson-Reed Immigration Restriction Act in 1965 (Engs, 2005, p. 126), the balance of incoming immigrants shifted slowly to the ‘coloured races’ that Bretherton had excluded from his memetic conception of the ‘American race.’ And with that new demographic shift (which finally switched to majority non-Caucasians in the late 1980s), new groups and races of immigrants began arriving in America that had not been significant before, each facing social challenges and a similar, if not even more pronounced hostility as their non-Nordic White brethren had suffered through decades before, almost as a rite of passage. In the procession of ‘New Immigrants’ from Irish Catholics to German Jews, to Russians and Poles, and much later the first large-scale immigration of non-Caucasians (other than the Black slaves brought to Colonial America to service the plantations of the Deep South), each group had to fight for its own niche and a place in the sun, like running a racial-religious gauntlet of acceptance from the older stocks of immigrants.

Significance of the Fuller and Bretherton Travelogues for this Study.

These two volumes by Fuller and Bretherton, although neither was centrally involved with eugenics as a topic, nonetheless bear historical witness to the social forces and cultural variations between Imperial Britain and Isolationist America during the Interwar period. Both Fuller and Bretherton saw the United States as more of a mish-mash of disparate cultures and competing factions, rather than a unified, cohesive nation. Fuller as a determined Hereditarian, evinced a real empathy for the ‘old stock’ WASP aristocracy of the Northeastern Seaboard, and a barely disguised contempt for the provincial ignorance and pettiness of the more recent arrivals in the cultural backwaters (as he saw them) of the American continental interior, and their material crassness and spiritual poverty. One could make the case that Fuller leaned towards the Nordacist end of the spectrum.

Bretherton as more of an Environmentalist saw the efficient operation of a great Melting Pot, alloying or sintering the disparate elements together, though even he saw merit in segregating Blacks into cultural ghettos or ‘separate but equal’ communities. I would put Bretherton in the same memetic category as H. S. Jennings, conceding the power of heredity in terms of physical traits, but also having a healthy respect for environment and its power to change populations over relatively short historical time periods.

Perhaps the most significant contribution of the two volumes was in exposing the power and influence of the “Cranks” (Fuller) and “Fundamentalists” (Bretherton), who drove the inflationary legal process and political frenzy to enact ever greater volumes of laws, ordinances and dictates to satisfy their ardent activism. The decentralized nature of the American system allowed these cranks and fundamentalists to achieve major legal and legislative victories in sympathetic States, which provided momentum that could then be parlayed into national campaigns and movements. Indeed, the lobbying strategies that were employed by the AES and its allies relied heavily on State chapters and local cranks or fundamentalists to achieve a beachhead which could then be expanded and exploited like falling dominoes. This patchwork of State legislatures, each reflecting local concerns and with its own set of social forces and actors, allowed the growth and spread of eugenically motivated laws, regulations and enforced norms; and once a law or statute was on the books, they were hard to strike down, except by an extended and concerted campaign by opposing cranks and fundamentalists.

Eugenics versus To-day and To-morrow as Meme-Vehicles for Eugenics Education

Having read the extensive presentation of *To-day and To-morrow* reviews in Chapter III, and the targeted foray into the publication run of *Eugenics* in Chapter IV, the reader, like this author, will have gathered many impressions and their-own embedded memes, memplexes and worldview activated and challenged. Readers may even have had their views or paradigms modified by the evidence presented and the exemplars put on parade. My own journey through these primary sources lasted over three years, involved many thousands of hours of study, reflection, analysis and writing, with many hundreds of pages of drafts and revisions generated along the extended voyage.

This personal journey started with a quick two-day introduction to *Eugenics* while researching the collections at the American Philosophical Society archives in Philadelphia. After this initial scan through the journal, my attention shifted to the *To-day and To-morrow* series, reading some 60-plus volumes, and writing reviews for almost twenty of those. This was my first extensive research of any single large collection of primary sources from the Interwar period, and it was revelatory.

The wide variety of subjects, themes, philosophical paradigms, and ideological stances taken by the various *Today and Tomorrow* authors suggested a memetic approach to harness the utility of memetic theory to examine the great disparity and divergence of dogmas, worldviews and theories expressed by the relatively small and culturally homogenous group of experts, intellectuals and activists that were the authors of this seminal series. As an aspiring academic and voracious reader of

history, I could appreciate the text-only format and relatively high-level of assumed knowledge, which would have served as a semi-permeable filter or gate-keeper for the influence of the series on contemporary readers. As Bowler (2009) appraised it, the *To-day and To-morrow* series was well-respected by the educated middle-class, as well as academics and professionals; the Interwar British 'home-game' equivalent of the intellectual *Salons* of Paris in the 18th-19th Centuries.

This semi-elite target audience meant a limited audience overall. In addition, the cost of the individual volumes and lack of photos or more sensationalist fare (as offered by the pulp magazines or special newspaper editions that served the 'low-end' of the market) also acted to limit its popular influence. On the other hand, the book series by its very nature was preserved in library collections around the world for future generations of memetic consumers to discover, even reaching the then provincial backwater of Alberta in surprising numbers. Despite the limited target demographic, the total sales (over 10,000) of Haldane's *Daedalus* (the series' best-seller), through its numerous Kegan Paul printings and E. P. Dutton editions in America, exceeded the total paid subscriptions to *Eugenics* through all three years of the journal's existence. But as an efficient vehicle for popular education and horizontal transmission of eugenics memes, *To-day and To-morrow* lacked the populist appeal and multi-meme-vector format (photos, captions, debates, news items, regular departments, feature articles, etc.) of *Eugenics*; not to mention its much cheaper relative cost (a year's subscription to *Eugenics* was slightly less than three individual volumes of *T & T*).

Also, *Eugenics* was able to differentiate its content for different audiences, combining the popular appeal of a thematic magazine, with the professional functions of a scientific or professional journal, and even the political functions of a social-movement's activist newsletter. In terms of articles and features aimed at the layman, like the Popular Education department of *Eugenics*, the multiple meme-vector approach (as theorized here) meant different rhetorical-memetic strategies could be employed to engage a number of different audiences, even offering a limited precursor of the 'learning-styles' approach now popular in certain Education circles. Pictures with short captions might be more appealing to 'visual learners,' while the Power Panel-style *Eugenics* Symposium aimed at those who enjoy debates or conversations between people with different viewpoints or perspectives. Those from rural or farm backgrounds might find analogies to domestic animal or pet breeding a potent way to translate principles of breeding animals to eugenic reproduction, while progressive citizens in big cities might be more effectively converted to the cause through scenes and descriptions of chaotic city streets and crowded boroughs or slum tenements. This targeted approach would have acted as a simple memetic-filter bypass mechanism. See the meme-map diagrammed in Figure 5-9 for a representation of this multiple meme-vector strategy.

Rhetorical-Memetic Strategies Employed in *Eugenics* for Evangelizing Novices

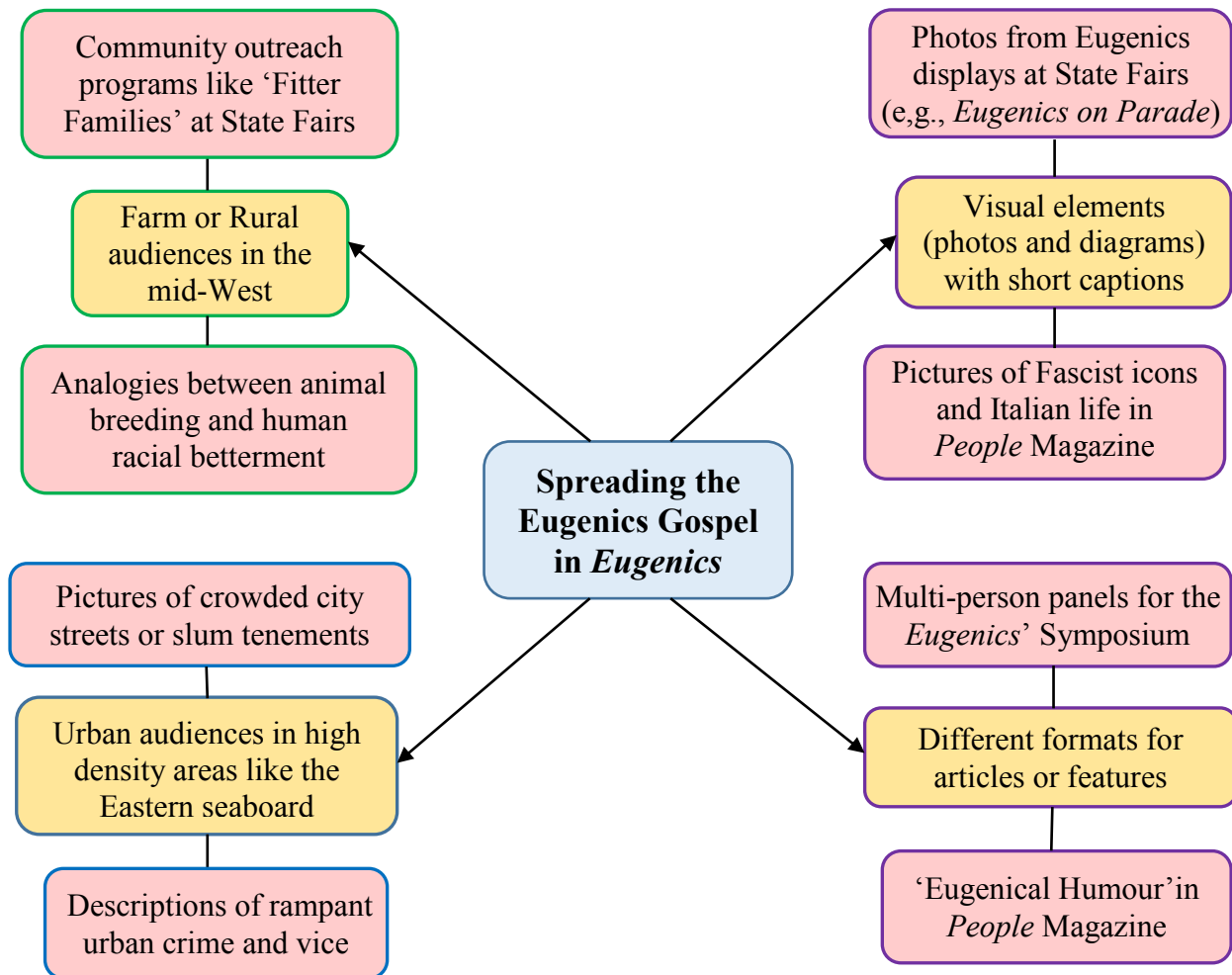


Figure 5-9: An illustration of the variation of rhetorical-memetic strategies for evangelization of novices in the AES's journal *Eugenics* and the lone issue of *People* magazine. Multiple rhetorical and memetic strategies increased the potency of *Eugenics* as a meme-vehicle and pedagogical tool of the AES and its various committees charged with recruiting new eugenic disciples for the growth of the movement to mainstream status, long the Holy-Grail of eugenicists since Francis Galton. Note - The purple borders on the right represent a memetic-style or pedagogical approach rather than a eugenic paradigm or explicit worldview.

This use of diverse formats and a demographically targeted approach (acting as meme-filter bypass strategies) would increase the chances of eugenics memes falling on fertile memetic soil and growing, as per the parable of the sower, and reinforce any consequent learning among novices and budding eugenic disciples. Had the Great Depression not forcefully intervened in the continued production of the magazine, suppressing the customer base below sustainable levels, there is no reason to think *Eugenics* could not have held-out at least until the American entry into World War II,

or even beyond. As the periodic editorials and news items announced, future plans were always expansionary, both in total circulation and into untapped niches and markets. But dwindling post-Crash interest outside the core AES membership and the committed members of the *Eugenics* choir, forced the aborted make-over to *People* magazine. This was a desperate attempt at memetic mimicry to cash-in on the popular cachet of *Life* or similar lifestyle magazines. It was hoped this change would stop the financial hemorrhage and expand the base of future activists, disciples and converts that were needed to grow the eugenics movement to mainstream status. Had this strategic editorial shift been done earlier and had the Depression not been so deep or long, these dreams of expansion and popular evangelization may have been realized, at least until the details of Nazi atrocities and racial hygiene policies raised difficult questions for their American memetic cousins.

Whether any activist publication could have survived the revelations of the Nuremberg Trials, which pointed the finger of accusation at Nordicist dogma for their ideological inspiration and extensive American involvement in German/Nazi eugenics (Black, 2003; Spiro, 2009), is a difficult question to answer. The drift from the laissez-faire Republican politics and social-Darwinism that dominated during the heyday of the AES (1921-1929), to the ‘Depression Socialism’ of FDR’s ‘New Deal’ in the 1930s and then the ‘National Socialism’ of frenzied war-time spending and industrial expansion did as much as the Depression to drive the last nails in the coffins of Nordicism and the strict hereditarianism essential to the expansion of the eugenics movement to mainstream status.

To be sure, the institutionalized apparatus of eugenics persisted for decades. These remnants included the ongoing eugenic sterilization of the ‘unfit’ (into the 1970s) and the technological artifacts of eugenics, such as IQ or Scholastic Aptitude Tests, segregated ‘special education’ and other educational psychology paradigms, and many more shards of memetically and technologically embedded eugenic detritus. Some are still with us under pseudonyms or rebranded labels (Family Planning, Genetic Counseling, Preimplantation Genetic Diagnosis, Abortion, etc.). Today, these ‘Newgenics’ (Kevles, 1985) technologies are not labelled or identified as eugenics, following the prophecy of Frederick Osborn (1968); or they are subsumed under ‘Liberal Eugenics’ (Agar, 2004).

But the overt Nordicism, ‘scientific racism’ and Old-World racial animosities of the Interwar period were long assumed to be dormant if not largely extinct by progressives in the post-Modern naïveté of the late 20th Century. Embarrassing reminders like the tribal genocide in Rwanda, or the disintegration of the former Yugoslavia into Nazi-like barbarity and crude ethnic cleansing, acted almost as further vindications for the enhanced American Melting-pot of the post-Civil Rights era, and a triumph of racial tolerance through education and activist outreach.

Then ‘9/11 Changed Everything’ and led to a 21st Century Crusade into the strongholds of Fundamentalist Islam, with a renewed campaign of racial-religious strife that matched the death-toll and ideological fervor of its historic predecessors. Since then, the racial scapegoating of Nordacist theory has been replaced by various crude memetic schemes, from the naïve memes of George W. Bush, like ‘the terrorists hate our democracy and freedom,’ to the dark political arts of Lynton Crosby (the so-called ‘Wizard of Aus’ who introduced racial memes into a number of Conservative election campaigns, including Stephen Harper’s losing 2015 campaign), and now the populist xenophobia of Donald Trump and his imitators. On the other hand, the sophisticated recruiting propaganda and advanced technological capabilities of the various Jihadi organizations to transmit their own virulent memes to a global population has grown apace and has attracted legions of volunteers to the cause, even from the far-away heartlands of Western liberal democracies.

Eugenics and Race-Hygiene Memes in *our* To-day and To-morrow?

Since the rise of the World Wide Web there has been a veritable explosion of virulent memes and new meme-fountains to spread them, using slick multi-media formats and with a pace and reach that the authors and editors of *To-day and To-morrow* and *Eugenics* could barely dream about. The rapid growth and impact of memes in the Internet Age surprised even the original meme-fountain Richard Dawkins and the initial academic disciples of his meme theory. Their memotypes and expanding artifacts have continued to multiply in the Digital Media-era, like bacteria in a rich nutrient broth, producing colonies of new memeplexes, technologies and institutions. This also included a re-awakening of dormant Nativist memes, whose latter-day disciples expanded from a tiny right-wing fringe in the post-Vietnam era, following a resurgence of Isolationism in the wake of America’s humiliating withdrawal from South-East Asia and its broken record as the world’s undefeated champion of global adventurism. This reawakened isolationist impulse grew again after years of stalemate in Iraq, Afghanistan and now extending into North Africa and beyond, and was accompanied by a nascent rise of ‘Islamophobia,’ the racial-religious fear and loathing of everything Arabic and Islamic.

By the middle of June 2016, Donald J. Trump had become the nominee for the Republican Party, even as ‘establishment’ GOP leaders distanced themselves from his overt racial-religious pronouncements and improvised policy prescriptions. In the wake of the mass-shooting at an Orlando LGBT club, Trump again resurrected his earlier policy ‘suggestion’ to ban all Muslim immigration and even raised the stakes by advocating closing of mosques and the registration of

individual Muslims in America (Johnson & Hauslohner, 2017). One popular rhetorical strategy was to bait lame-duck President Barack Obama and Democratic nominee Hillary Clinton into using the phrase ‘Radical Islamic Terrorism,’ and suggesting both were either incapable of answering the threat posed by ISIL, or were actually complicit in an organized attack on America by Islamic terrorists. Trump invested this simple phrase with much significance, as though uttering it was the key to solving America’s security problems, despite other leaders in his own Party pointing out his ‘suggested’ solutions would be unconstitutional. Trump also placated his base by pledging to be a champion of their Second Amendment rights, suggesting that the solution to lone-wolf terrorist attacks is a well-armed populace of benevolent vigilantes that could quickly respond with deadly force to any future attack (Smith & Beckett, 2017).

In Britain, Thomas Mair, a right-wing extremist, used the much publicized Brexit campaign to ambush and assassinate a Labour Party MP and ‘Remain’ activist, while allegedly yelling out “Britain First” (a close analogue of the “America First” meme Trump employed in his campaign rhetoric).¹¹⁵ Unlike Donald Trump’s immediate self-congratulations over ‘predicting’ various terrorist attacks, and doubling-down on xenophobic themes in the campaign; the British government briefly postponed the referendum over the Brexit debate and tried to put a lid on the racial-religious animosity that had been brewing in Britain for decades due to the consequent expansion of immigration and freedom of movement. One CBC news report (Cosette, 2016) even profiled the growing animosity to Eastern European immigration in rural areas of England’s north-country, in this case from Poland, but other recent incidents have also focused on Muslims and African refugees seeking asylum in Britain.¹¹⁶

Thus, we see renewed racial-religious crusades led by a new generation of ‘cranks’ and ‘fundamentalists’ in Britain and Canada that mimic the immigration restriction campaign in Interwar America, including some of the same racial targets. Is this renewed strife over dormant racial memetic paradigms merely an example of a willfully perverse ‘History’ dooming the actors on the current stage to repeating the same interminable meme patterns *ad infinitum*? Or is there more to it?

¹¹⁵ According to the London-based *Independent* news-story on the ambush: “Jurors heard how the 53-year-old shouted “Britain first, this is for Britain” over her body after shooting her three times and inflicting 15 stab wounds.” <http://www.independent.co.uk/news/uk/crime/thomas-mair-guilty-tommy-verdict-jo-cox-mp-murder-trial-court-latest-a7433496.html>

¹¹⁶ The story: *‘It’s not the country I know’: British government responds to spike in hate crimes after Brexit*, focused on anti-Polish hate-speech and acts. <http://www.cbc.ca/news/world/brexit-hate-crimes-1.3658666> Many right-wing social-media pundits in Canada denied or dismissed any anti-Polish or anti-Eastern European sentiment in Britain, and projected their own anti-Muslim memes into the comments. Other reports in the run-up and aftermath of Brexit focused on Islamophobia and these acts were eagerly applauded by Canadian pundits on Internet forums.

The ‘*America First*’ meme, similar to the Harper government’s proposed Niqab-ban and related ‘Barbaric Cultural Practices Tip-line’ (CBC News, 2015) had roots that go back to the Nordicist-Nativist agenda in the American eugenics movement, and served as a strong ‘dog-whistle’ message to ‘old stock’ supporters of the racial-exclusion agenda, without explicitly crossing the line into overt racism. Simple memes, like *America First* can activate clusters of embedded racial or nationalistic memes in receptive individuals, while remaining largely inaudible or inoffensive to others not in the know. Thus a simple meme like *America First* can act as a ‘Trojan-horse’ to bypass the meme-filters of supporters (because they already agree with the meme) and even those who are on the fence or leaning in that direction, without activating the active defenses of their religious-ethical filters.

By the time Donald Trump won the GOP Presidential primaries and became the presumptive Party nominee, he had already seeded the more overt memes of racial-religious discrimination in the memetic disciples of his neo-Nativist movement. After that, Trump only needed to periodically use more covert dog-whistle memes that would bolster the earlier memetic programming and slyly signal to his followers that he was ‘still with them,’ without flagrantly offending GOP moderates or non-aligned Independents. Perhaps the best of these coded memes was his classic ‘*We’re Gonna Build the Wall!*’ This recurring Populist meme at his rallies was perhaps only second to ‘*Lock Her Up!*’ in attracting Republicans that had been somewhat concerned with some of his earlier more overt racial memes. This simplistic memetic messaging was enough to eke-out a narrow Electoral College victory (which became a veritable ‘landslide’ with each retelling, a simple form of memetic reinforcement or ‘booster-shot’ for his remaining supporters).

Since the election, the Trump administration has delivered a series of memetic rewards to the core support-base, including a series of travel-bans targeting majority-Muslim nations, much like the National Origins clause of the Johnson-Reed Immigration Restriction Act of 1924 detailed in Chapter IV. Although these actions prompted court challenges that temporarily blocked Trump’s executive orders, they are supported by large majorities among Republican voters (Shepard, 2017). Trump’s rhetorical attacks on Black NFL players protesting police violence also served to ‘gin-up’ the base. By memetically transposing the issue from systemic racial inequality, to disrespect of the Flag, Anthem and military veterans, Trump was able to capture majority support for his stance, in a modern replication of the need to quash the ‘uppity niggers’ (a recurring meme) that fueled the anti-Negro pogroms by the Ku Klux Klan in the Jim Crow-era (Cillizza, 2017). Furthermore, despite tepid support among the GOP establishment in Congress for providing the tens of billions of dollars required for his ‘big, beautiful wall,’ it remained a staple at Trump rallies in the Red States.

But what is the future for eugenics and racial-religious hygiene memes? Donald Trump, in particular, was rewarded for his use of racial-religious memes as an ‘outsider’ and someone who ‘tells it like it is,’ boldly eschewing the tame language of ‘political correctness’ for plain-talk at a Grade Four level. Will Donald Trump’s use of racial memes and Nativist policies continue to hold the support of ‘cranks’ and ‘fundamentalists’? Could Nordicist-style race-hygiene memes (or an updated analogue) become a going concern again? Has it already reached that point? The last section of this chapter considers that possibility and its potential for realization, after a brief look at a longer-term view of major historical capitulations of Social Darwinism, eugenics, scientific racism and Nativism.

In the Long Run: Tracing Major Incarnations of Eugenics, Scientific Racism and Nativism

As alluded to previously, there is a longer history of eugenics, racism and Nativism that goes back much further than the Interwar period that this study has focused on. While some historians have tried to connect eugenics back to the ancient Greeks of Sparta, or other previous incarnations of tribal or Nativist discrimination or elitism, true racial-based ideologies really only began in the 17th Century (Hannaford, 1996), though there has certainly been a much longer history of religious schisms, civil wars and similar conflicts and divides. The Crusades, the Spanish Inquisition, the Counter-Reformation and Thirty Years’ War, and similar episodes crop-up like a recurring rash in history. Madison Grant (1916, 1918), building upon the racial anthropology of his mentor H. F. Osborn (1915), famously linked these European religious conflicts to racial divisions, going back to ancient Greece. Those racial distinctions were based on Nordicist theory, depending on a finer parsing of ‘Whites’ into three or more sub-races or groups (Nordics, Alpines, Mediterraneans), and even sub-divisions of these sub-groups, like the Armenoid sub-race of Alpines in Asia Minor, which included the Jewish diaspora living on the eastern margins of Europe.

Hannaford (1996), and to a lesser extent (Barkan, 1992), make the argument that true racial paradigms or racist worldviews did not exist in objective reality before the early 1800s, and were tied-up with the development of empirical science, but particularly physical (or racial) anthropology. These fields gave rise to many of the first incarnations of scientific racism and even class-based eugenics (with a racial sub-text) in Britain. The ultimate expression of scientific racism was the Nordicist theory that dominated late 19th Century anthropology in Continental Europe, and racial anthropology in America (Morton, 1839, 1844; Beddoe, 1885; Ripley, 1899; Gunther 1927; Stanton, 1960, Gould, 1981, 1996; Hannaford, 1996; Spiro, 2009).

To truly understand the memetic basis of racial eugenics in America, or German/Nazi race-hygiene in Europe, one needs go back to these earlier incarnations. Although a detailed description of the origins and history of eugenics, scientific racism and Nativism in America and Britain is beyond the scope of this study, the works listed above provide a rich history and theoretical understanding of these various incarnations or capitulations of the major paradigms (memeplexes) and worldviews involved. One of the best and most accessible is Stephen Jay Gould's *The Mismeasure of Man* (1981), which was expanded in 1996 to incorporate Gould's scathing critique of *The Bell Curve* (1995), one of the last hurrahs (to date at least) for truly 'scientific' racism in America (Tucker, 2002). So while I will not trace these memetic developments or history of racial-social theory in detail, it is important for my later discussion of periodic outbreaks of racial-religious Nativism that have been such a fundamental characteristic of American history, at least from the time of Samuel George Morton's (1799-1851) development of the 'American School of Ethnology' (Barkan, 1992), also known as the 'American School of Racial Anthropology' (Gould, 1981). This longer view of history goes toward answering the last part of my research question, dealing with memetic precursors and recapitulations of eugenics and race-hygiene.

As stated previously in this chapter, British eugenics was more class-based from the time of Galton's founding of the movement in the 1880s, through to the late 1930s. It is only more recently that Britain has seen a populist wave of Racial Nativism, most prominently displayed by the Brexit debate and referendum, which was also touted by Donald Trump in the 2016 Presidential campaign, as a vindication of his own racial-religious scapegoating.

From a memetic perspective, the longer view helps to illustrate that although the name of the memeplex changes, from Social Darwinism, to Eugenics, to the Nativism of Brexit, the raw memes and smaller meme-clusters remain largely the same, and are merely shuffled and recombined into new combinations or arrangements to suit the social environment and prevailing ideology of the time. This is how Richard Dawkins used memes in his analogy to the genes and chromosomes on which memetic theory is based. Dawkins (1976) explicitly stated that the genetic make-up or biological heredity of one's ancestors became so diffused or diluted (through meiosis, sexual reproduction and recombination) that it is difficult to trace specific phenotypic effects beyond three generations. Although Dawkins danced around the same idea for memes, he never explicitly extended the same diffusion or dilution to memeplexes or worldviews over long periods of time. But if we recall the oft-repeated *cliché* (one form of popular meme), often attributed to Mark Twain that "history does not repeat itself, but it rhymes," one may begin to appreciate the memetic basis for that truism, in the historical recurrence of racial discrimination and Nativist paradigms.

Perhaps an even better expression of this idea for my purposes here is the original quote by Charles Dudley Warner (1874) that “History never repeats itself, but the Kaleidoscopic combinations of the pictured present often seem to be constructed of the broken fragments of antique legends.”¹¹⁷ Written a century before Dawkins first elaborated the theory of memetics, this expression almost perfectly encapsulates the particulate nature of memes, and how they are rearranged and recombined into new patterns or memeplexes, often without the awareness of later generations of their origins or previous incarnations.

One could also invoke the famous quote by George Santayana: “Those who cannot remember the past are condemned to repeat it” in *The Life of Reason: The Phases of Human Progress* (1905). I bring this up, because so many of the commentators and political pundits who pontificate on the neo-Nativism and White Nationalism of Donald Trump and Steve Bannon seem to have a limited historical view that is limited in its rearward historical reach to the civil-rights movement of the 1950s and 1960s, without invoking the racial eugenics and Nordicism of the 1920s, or its earlier historical precursors. This limited historical ‘rear-view mirror’ accords well with Dawkins’ idea of the dissolution or dilution of biological inheritance in three generations, but transposed to memetic inheritance (vertical transmission of memes) and the recognition of historical precedents. Whether this is by editorial choice for a popular television audience, or just naivety on the part of the pundits is beyond my ability to hypothesize with any certainty. Related to Santayana’s quote, and perhaps even more troubling considering President Trump as Commander-in-Chief directing the second largest thermonuclear arsenal in the world, is the following recent quote by Justin Smith in *Harper’s Magazine*: “Putin, Merkel and Trump are empty vessels into which the blind forces of history have flowed. Trump doesn't even understand the currents he has been channeling” (Smith, 2017).¹¹⁸

So with this set-up, let us examine a longer view of the memeplexes or worldviews that preceded and informed the renascent rise of the Alt-Right, and their coronation of Trump as political leader and Steve Bannon as theorist or chief strategist of this latest memetic rearrangement of the shards of coloured glass in the kaleidoscope of the historical recurrence of racist Nativism.

¹¹⁷ American essayist and novelist Charles Dudley Warner (1829-1900) was Mark Twain’s neighbor and is believed to be the original source for Twain’s more famous attribution (an example of the so-called ‘Seinfeld Effect’ as listed in the memetics glossary in Appendix I, pp. 365-370). The origin of the quote is the 1874 edition of *The Gilded Age: A Tale of To-Day*, co-written by Twain and Warner.

¹¹⁸ The “Blood and Soil” reference is an old Nazi expression that was chanted by neo-Nazis and Klansmen in their torch-lit march in Charlottesville, Virginia; the shocking footage of which has been repeated endlessly on the mainstream cable news channels (except for FOX News). This prompted President Trump to remark that there were “some very fine people” among these Alt-Right marchers in his ‘unshackled’ news-conference at Trump Tower, six days after the vehicular manslaughter of anti-racism protestor Heather Heyer by one of the neo-Nazis.

A Longer Historical View of Eugenics, Race-hygiene, 'Religious-hygiene' and Nativism

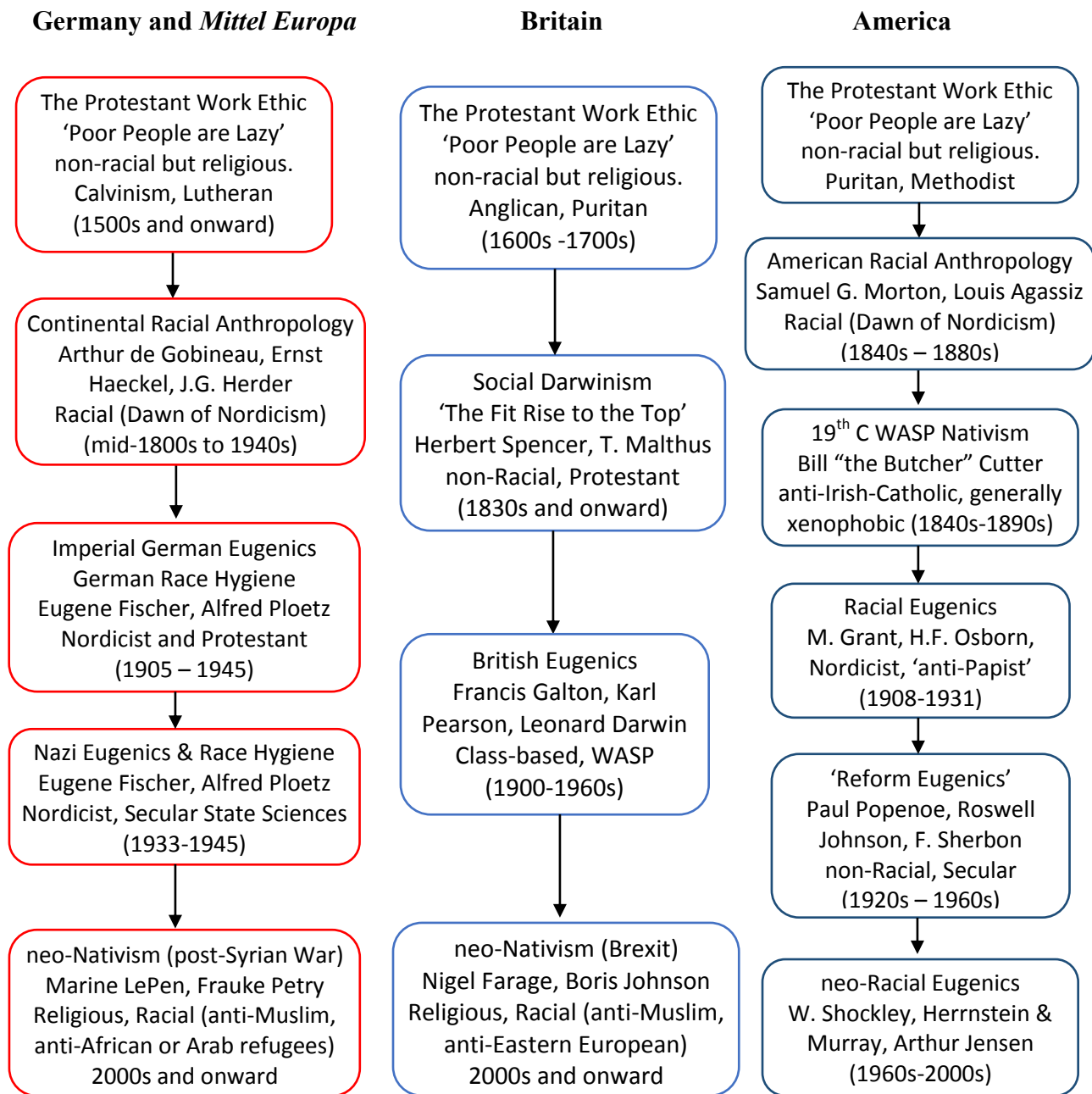


Figure 5-10: A longer historical view of various incarnations of Eugenics, Race-hygiene, 'Religious hygiene' and Nativism, from the beginning of true racial paradigms and the evolution of the Protestant Work Ethic (aka Work Discipline – Josiah Wedgewood). Each paradigm has different combinations of racial (superior and inferior), religious (origins and targets), xenophobic and scientific or social origins, depending on the particular combination of memes or clusters that were key to the paradigm or memplex. Note there is no mention of 'Trumpism' or 'Bannonism,' as this will be dealt with in more detail later. Notice also that 'America [is] First' when it comes to the invention or innovation of various schemes for racial-religious-Nativist discrimination. #MAGA? (This chart partially addresses part c of my research question presented in Chapter I, p. 6,7).

The historical trends shown in Figure 5-10 illustrate the variations in the ideological motivations and memetic characteristics of each of these past paradigms or memeplexes. But what of the current memeplex alternately referred to as the Alt-Right, Trumpism or Bannonomism? How does it compare to these historical predecessors? What are the common characteristics and minor variations?

One of the most obvious differences to either Nordicism or Reform Eugenics, is that the new White Supremacy is not based on any scientific paradigm or even heavily dependent on statistical data, as was the case with Herrnstein and Murray's *The Bell Curve* (1995), or the various writings by latter-day racial eugenics disciples such as William Shockley and Arthur Jensen (Tucker, 2002). Thus the Trump-Bannon paradigm does not conform to 'scientific' racism, even as it shares some of the same target groups (Blacks, Hispanics) and also privileges Whites (and some Asians).

Some of the groups involved in the Alt-Right movement, such as the new Klan and neo-Nazis, still retain a strong core of anti-Semitism (against Jews), even as Trump's cabinet and inner-circle includes a significant number of Jewish members, including Trump's son-in-law and senior adviser Jared Kushner. What has largely replaced the anti-Jewish racial-religious scapegoating is anti-Semitism aimed at Arab Muslims (Green, 2017). This strain of racial-religious xenophobia is one of the key uniting elements between Trump supporters in America, Canada and Europe, and the Brexit supporters in Britain. It is 'Islamophobia' that triggers the greatest volume of comments on social-media and diatribes on far-right media sites like Breitbart in America and Rebel Media in Canada.

The Alt-Right has associations with far-right Evangelical Christians (and even radical Catholics like Bannon) and yet much of the movement is non-practicing Christians who merely invoke their religion of birth as a uniting feature of the community (Green, 2017). One of the more interesting recent revelations on this front was a Newsweek article (Perez, 2017) reporting the release of a new book by far-right Evangelist pastor Robert Jeffress accusing Catholics of being a pagan-cult inspired by Satan, even denying that they are Christian. This mimics the anti-Catholic WASP Nativism of Bill Cutter (as played by Daniel Day Lewis in Martin Scorsese's "Gangs of New York" (2002)) and the more ardent Nordicism of Madison Grant (Spiro, 2009). This memetic variation among the core base is hardly surprising, so long as they strongly share enough other elements of the memeplex. In fact, these apparent minor contradictions offer additional evidence of the memetic variation or alternate arrangements of memes in any strong memeplex or worldview. This low-level memetic variation at the meme or small meme-cluster level is similar to the small genetic variations within a once homogenous population that can be acted upon by natural selection to produce speciation.

One of the more puzzling aspects of the ‘Trump phenomenon’ to some political pundits was how he could attract support from Blacks or Hispanics. Housing and Urban Development (HUD) Secretary Dr. Ben Carson is a perfect exemplar. Despite being Black, Dr. Carson shares many of the essential characteristics of the core Trump-base: strongly Conservative, Evangelical Protestant, an ardent anti-Abortion activist and a supporter of Trump’s pledge to appoint very Conservative judges to the Supreme Court. Such an apparent Faustian bargain from a strictly racial standpoint is not anathema (especially when promised a token position in the Trump Administration). We would NOT expect a highly educated, pro-Choice, liberal Black woman with a strong commitment to civil-rights and a committed atheist to be a Trump supporter. That kind of ‘memetic dissonance’ would be inconsistent, especially for a disinterested independent voter with no direct personal gain at stake.

So, ignoring the kind of variation discussed above, what are the essential characteristics of the Alt-Right memeplex? Figure 5-11 below is my appraisal of some of the key elements of the typical supporter who voted FOR Donald Trump, as opposed to merely voting AGAINST ‘Crooked Hillary,’ based on keen observation over the past two-years. Readers could no doubt find exceptions or other personal observations based on their own observations and cognitive paradigms or unique worldview. This is typical of the ‘messy truth’ of memetics, found in both horizontal and vertical transmission of memes, or even our perception of memes that we reject as hostile or foreign.

‘Trumpian’ (Alt-Right) Nativism and White Nationalism

Principals: Steve Bannon, Donald J. Trump, David Duke, Richard Spencer

Key Characteristics: Racial (White Superiority), Religious (nominally Christian – but especially Evangelical Protestants), some anti-Jewish remnant elements.

Isolationist and Protectionist (‘America First’), pro-Military but anti-Interventionist except in cases of defending the homeland or Israel, or when politically expedient.

Climate Change and Evolution Deniers (generally anti-Science, anti-Intellectual, but not anti-Technology – especially in terms of fossil-fuel extraction and use).

anti-Regulation and anti-Government Spending in terms of social programs, such as fully-funded public education and universal public healthcare (Social Darwinism).

anti-Immigration (non-White) xenophobia (especially anti-Muslim), anti-United Nations and anti-Globalist (Multilateral Trade or military Alliances like NATO).

Homophobic (which in part explains the strong support for Putin and Russia).

Figure 5-11: Some key characteristics of the Alt-Right (White Supremacy and White Nationalist) Memeplex. While not all of the fervent Trump-Bannon base would share all these characteristics, they would be committed to at least a plurality of these key memetic ideals, or a few very strongly. (This chart partially addresses part c of my research question presented in Chapter I, p. 6,7).

When we compare these characteristics to the previous incarnations displayed in Figure 5-10, which of those prior iterations of American racial-religious-political biases is the best match for the ‘Trumpian’ memplex shown in Figure 5-11? I would judge this ‘new’ memplex is closest to the 19th Century Nativism of Bill ‘The Butcher’ Cutter, as portrayed in Martin Scorsese’s “Gangs of New York” (2002). But ‘Trumpism’ also closely mimics the WASP Nativism of Brexit, or the anti-Muslim xenophobia of Marine LePen’s National Front and Germany’s Alternative for Deutschland (AfD); which made large gains in Germany’s 2017 Bundestag election, for the first time since Hitler’s National Socialists were swept into power. These right-wing Populist memplexes are *not* Eugenics in any real sense, since it is not based on genetics or scientific dogma, but it still contains common memes, perhaps best encapsulated by the neo-Nazi meme “Blood and Soil” chanted by the ‘very fine people’ at the ‘Unite the Right’ Rally in Charlottesville in August 2017 (Smith, 2017).

Recently, there was a flurry of jokes and sarcastic observations on the late-night talk shows. It seems Alt-Right disciples have been using the new commercial genetic-testing services like ‘23 and Me’ or ‘Ancestry DNA’ to prove their racial (WASP or ‘Aryan’) purity (Knight, 2016). Some have been sorely disappointed to find ‘African’ admixtures or other non-White ancestry in their skeleton-filled family closets! (Broad Science, 2017). If that isn’t enough to reject genetics and seek refuge in non-scientific memes like ‘Blood and Soil,’ the recent findings of anthropology (Stringer, 2002) might be. Modern DNA analysis has shown that all modern humans are descendants of ancient Africans. This would be as difficult for the Alt-Right to swallow, as for followers of Henry Osborn’s (1915) Nordicist racial anthropology theory of a common White-Eurasian ancestry, with ‘racial degeneration’ as humans spread to all corners of the world, especially when they entered Africa to produce the Negro race. But even this backwards theory was progress compared to the followers of the Dean of the American School of Racial Anthropology and Ethnology, Dr. Samuel G. Morton, who believed that the main races of mankind were the product of separate creations by God, as necessitated by the young age of the earth (~6000 years), which would obviously preclude such dramatic evolutionary changes as to produce the disparate races (Gould, 1981; Stanton, 1960).

Another confirmation of the extreme importance of race to the Alt-Right or Trumpian memplex, was the recent revelation (Ioffe, 2017) that the Russian ‘Troll-Farm’ in Leningrad (the Internet Research Agency) devoted up to two-thirds of their ‘fake news’ efforts on social-media (FaceBook, Twitter, etc.) to drive racial animosity memes among the electorate. This took various forms, including posing as Black activists (like ‘Blacktivist’) and spreading memes about radical Muslim terrorists in America, or the nefarious activities of George Soros and Antifa.

The Potential for Racial-Religious Memes and Race-hygiene Education To-morrow

In the absence of a strong commitment to genetic science and the principles of progressive biological improvement based on neo-Darwinism, the potential for a revival of traditional eugenics is slim to none. Instead, it is the older model of racial-religious based Nativism combined with 'White Identity politics' that seems to be undergoing a resurgence or renaissance under the banner of far-right Populist demagogues like Donald Trump, Nigel Farage, or their Continental European analogues. This reactionary movement is based on racial identity and political ideology and is historically regressive, rather than progressive and scientific. It looks backward to an imagined halcyon age when heterosexual, White, Christian males completely dominated society. It rejects academic intellectuals and highly educated professionals, in favour of crude memes like "*Make America Great Again*" and "*America First*," advanced by media-savvy strongman banner-carriers.

It rejects a significant leadership role for women, especially women of colour, at least outside traditionally female occupations and interests. Women in subordinate leadership positions in this new Nativist, White Nationalist movement, like Sarah Palin or Anne Coulter, must be even more ardent than their male peers in condemning liberal elites, alternative lifestyles, or accommodations for racial-religious minorities in mainstream society (Darby, 2017). For example, they condemn abortion or the provision of family planning services through public healthcare or publically-funded private clinics ('Defunding Planned Parenthood' being a perennially popular meme to pander to).

In terms of religion, the "Progressive Protestantism" (MacArthur, 1930) that blended the goals of biological improvement with moral-spiritual hygiene, has been replaced by ultra-Orthodox Judeo-Christian Fundamentalism. The Evangelical 'Fire and Brimstone' wing of the new Republican Party has been staunchly supportive of President Trump, bolstered by the overt Fundamentalism of Vice-President Mike Pence, despite the cognitive dissonance of Trump's former life as a flamboyant New York playboy or the infamous Access Hollywood video. But as much as the movement promotes 'Christian values,' it is the reaction against other faiths, especially Muslims, that receives the loudest applause at Donald Trump rallies (with the notable exception of right-wing and Orthodox Jews).

Tolerance for the tiny faction of gay members of the GOP (the so-called 'Log Cabin Republicans') extends only so far as their votes at the ballot box, as evidenced by Donald Trump's popular (among his base) pogrom against transgendered members in the military that caused considerable consternation among the professional military leadership at the Pentagon. Attorney General Jeff Sessions also recently proposed guidelines for new legislation that would remove Federal protections against anti-LGBT discrimination for religious objectors (The Guardian, 2017).

But it is the large cluster of racial-religious identity memes that especially unites the disparate elements of the Alt-Right, the Christian Right and the Tea Party or ‘Freedom Caucus’ Republicans that make-up the committed base of the Trump base. As opposed to the Nordicist or WASP supremacy memplex of Interwar American eugenics, Donald Trump’s base has expanded this to include essentially all Caucasians. This even includes the Latino Cuban exiles in Florida, who are descendants of the old ‘White Spanish’ elite that governed Cuba during the authoritarian Somoza regime toppled by the Castro Revolution. But it definitely excludes the “Mexican Amerinds” that C. M. Goethe railed against in *Eugenics* (in the Immigration and Legislation section of Chapter IV), and those immigrants of Hispanic-Black admixture from the West Indies and South America.

While token Blacks like Dr. Ben Carson may serve to add a patina of racial tolerance to the Trump administration, his cabinet is the whitest collection of functionaries and apparatchiks since the 1970s, when coloured people first broke the glass-ceiling of racial exclusion in Federal politics. Donald Trump also included one token Asian-American woman in his cabinet (Elaine Chao – wife of Senate Majority Leader Mitch McConnell) in the post of Secretary of Transportation. But what is most remarkable about Trump’s inner-circle, compared to the leadership of the Nordicist strain of American eugenics in the Progressive-era, is the significant number of Jewish-Americans in high profile portfolios: such as Treasury Secretary Steve Mnuchin, Senior Economic Advisor Gary Cohn, and Senior Advisor Jared Kushner, Trump’s son-in-law. Thus, just as Sir Arthur Keith essentially abandoned the Nordicist superiority paradigm in *Ethnos* (1931), the Alt-Right has substituted White Nationalism for WASP or Nordic Supremacy. And yet, when one examines the surnames and head-shapes of the Trump Administration’s inner circle and the Republican leadership in the House and Senate, ‘old-stock’ WASPs still predominate. This near hegemony over the political apparatus of the GOP Congressional majority and the Executive Branch belies the notion of a post-racial America that naïve post-Modern optimists claimed in the waning decades of the 20th Century.

Despite this near hegemony over the levers of power in the Trump regime, the old meme of ‘race suicide’ has seen a resurgence as “White genocide” (Jackson, 2015) in the ranks of White Nationalists, accompanied by negative memes branding Black Lives Matter and Antifa (anti-Fascist) as ‘terrorist’ organizations, and the related claim of ‘anti-White racism’ by Alt-Right cranks and White Power Fundamentalists across liberal democracies of Western society. This meme is driven home when one scrolls through the comments by far-right political supporters on social-media, who again see the threat of multiculturalism and racial-religious integration as a real existential threat. These cranks also decry those ‘leftist’ politicians who support the rival ‘Melting Pot’ or ‘Cultural Mosaic’ paradigms as enemies of the people, or traitors to the nation (Kaplan, 2015).

This exclusionary memeplex is not driven through formal education programs (quite the opposite), or the mainstream news media (derided as the ‘MSM’ or ‘lamestream’ media by Alt-Right disciples on social media). Instead, it is that Pandora’s Box of alternative or fringe memes, the World Wide Web that supplies the curriculum and pedagogical instruction, along with the growing right-wing media universe of Conservative Talk-Radio, or cable channels like FOX News and its imitators that drive the educational agenda (Green, 2017). Just as modern science fiction franchises like Star Trek, Dr. Who, *et al*, drove a new fascination with the possibilities of ‘Newgenics’ and the miracles of modern biotechnology to a progressive audience in the 1960s-1990s, this new constellation of far-right media and the digital memetic domain is the primary purveyor of White Nationalism and neo-Nativism. So when mainstream political pundits talk about the ‘cultural divide,’ or ideological ‘silos’ or ‘bubbles’ in Trump’s America, it is the recent profusion of this new matrix of advanced digital communication technologies that serves as the ideological tutors and memetic schoolmasters for the neo-Nativist movement.

Just as Newtonian Physics was incommensurate with Quantum Mechanics and Einsteinian Relativity (Kuhn, 1962), the ideological paradigms of the Alt-Right and its component factions are incommensurate with conventional conservative, liberal or socialist political dogma. The adherents of this seemingly novel political paradigm are just as bound to their inculcated memeplexes or worldview as were the Nordacist-hereditarians of the 1930s, even in the face of contrary evidence in the dire days of the Great Depression. The memetic-filters that served to guard and protect the eugenics paradigm or hereditarian worldview of yesterday are at least as strong and viable in the Alt-Right and Christian-Right support-base that Donald Trump and his ilk rely upon, seemingly able to dismiss or counteract any amount of cognitive dissonance or contrary evidence to the validity of their cherished memes and deeply-ingrained worldview (Worthen, 2017).

As with the cataclysmic conflict between the memetic banner-carriers of Nazi Fascist-Eugenics and Soviet neo-Lamarckianism (Lysenkoism) that played-out on the Eastern Front during World War II, or in the show trials and purges of Stalin’s ‘Science Wars’ (Pollock, 2006), the potential for all-out ideological conflict is just as high today. This is especially evident when precipitated by a mass-casualty terrorist attack like the Pulse Night-Club in Orlando in 2016, or a major political crisis, like the Syrian Civil War and its consequent diaspora of refugees. Whether there is some magical or rational memetic solution to this ideological gulf and crisis of tolerance for alternate viewpoints is yet to be determined. And when one considers the growing economic costs and geo-political consequences of climate change, the raw horsepower for an Apocalypse to fulfill the prophecies of Revelations is building. That is *my* final revelation for to-day, and this concludes my memetic gospel. Amen.

Summary of this Chapter and a Recapitulation of my original Research Questions

This chapter brought together the historical research and initial analysis in Chapters III and IV and the like-numbered appendices. I compared and contrasted the British and American eugenics movements, and their relative emphases and motivations, adding more generalized meme-maps that gave expression to these historical memetic alleles. I also compared the *To-day and To-morrow* series with the AES journal *Eugenics* in terms of their popular appeal and effectiveness as educational platforms for education about eugenics (and Nordacist-style race-hygiene in the case of the *Journal of Race Betterment*). The first part of the chapter completed my answers for parts a and b of my research question from Chapter I (p. 6, 7).

Research Question: What were the goals and programs, both envisioned and actually delivered, for formal, popular and professional eugenics education in Interwar America, Britain and beyond?

- a) What were the prominent strains or variations of eugenics (and eugenics education) and what were the alternative paradigms or opposing worldviews to eugenics? How did the memetic struggle for dominance among these rivals play-out during the historical period in question?
- b) How, and by whom were eugenics (and eugenics education) goals and programs formulated, implemented and delivered, and what sorts of rhetorical and memetic strategies were used to reach and persuade their target audiences?

In the later sections of this chapter, I looked at a number of memetic precedents and recapitulations of Interwar eugenics paradigms, presenting a timeline of related incarnations of the basic memes and meme-clusters that produced the eugenics movements of the early 20th Century. This timeline illustrated the societal persistence of these memes and component clusters, even as they adopted new names or packages, analogous to the changing protein-coat of a virus or pathological bacteria. This latter section more fully addressed part c of my research question:

- c) How have the memes of eugenics and race-hygiene mutated in the intervening years and why are they again ascendant or emerging from relative dormancy to 'go viral' again?

Chapter VI will briefly describe my growth and insights as a scholar over the course of study, as a result of pursuing this multi-year research project, and why this research still matters today, as well as its implications for tomorrow.

Chapter VI: Personal Reflection and Insights from this Study

This dissertation represents almost eight years of formal study and extensive research into the eugenics movement, the science of memetics, and the intersection of science, technology, society and politics. What began as a purely historical study of American and British eugenics and related educational efforts was made more relevant and topical with the recent rise of the Alt-Right, neo-Fascist and neo-Nativist forces in Europe and British North America. This became especially apparent with the Brexit debate and referendum, and even more so with the 2016 American election campaign that brought Donald Trump to prominence as a meme-vehicle for these resurgent forces from America's previous flirtation with Nordicism and racial eugenics. This renaissance lent new impetus and opportunities to link previous incarnations of scientific-social forces with today's political situation. This was done in Chapter V by comparing the component memes from the Interwar eugenics movements, with both earlier historical precedents and latter-day rearrangements.

As mentioned in Chapter II, this research project was my first extensive foray into examining and documenting primary historical sources. Starting with the *To-day and To-morrow* series, I examined over fifty volumes of this seminal series, looking for those with significant eugenical content, or at least coverage of hot topics that played a major role in the movement. From these, I selected some dozen and a half titles for detailed study and review. These selected titles were reviewed and analyzed in Chapter III, Appendix III and Chapter V. Having a limited prior exposure to this time period (outside of high-level geo-politics), this research represented a steep learning curve, as I had to immerse myself in period slang, scientific and philosophical discussions, and the authors and sources cited in the series. The same was true when I turned my attention to *Eugenics* and *People*.

As a novice scholar in this area, learning the roles and views of a myriad of major players and minor actors in this milieu was one of the most daunting tasks, especially since there has been a concerted effort to sanitize or censor the involvement of famous scientists, political figures and renowned personalities who were peripheral to the eugenics movement. This literally took years of concerted study to be fluent with this panoply of personages, so if the reader of this dissertation was intimidated by the blizzard of names, associations, and radical viewpoints, you are not alone.

In addition to learning the names and primary contributions of this vast cast of characters, another difficult task was getting a handle on the subtle (or stark) memetic variations between these principals. The variation between radical proponents, cautious moderates and ardent opponents of eugenics was immense, not to mention learning about the obsolete memetic rivals to eugenics, like neo-Vitalism, Fabian socialism, or even non-Soviet neo-Lamarckianism.

Perhaps the biggest challenge was in developing a practical understanding of the burgeoning science of memetics, beyond the trivial Internet references and celebrity ephemera. This also took many months and even longer to put into practice when listening to talking heads on TV or reading articles or other text. One big advantage for today's scholars is that these historical sources from the 1920s broadcast their memes and messages in the clear, and felt little need to camouflage or censor their stated racial-religious views for the sake of 'political correctness.' After a few years of study and practice, I have become rather proficient in translating even coded dog-whistles into a memetic picture of the operant paradigm or worldview of the speaker or author, and spotting the tell-tale signs of their racial-religious-political alignment. Despite the steep learning-curve involved, becoming familiar and then proficient with memetics as a theoretical lens and conceptual tool was an important step in being able to analyze and understand the wide range of philosophical standpoints expressed by the authors of *To-day and To-morrow*, and to contrast the narrower range of paradigms and worldviews held by eugenic disciples and contributors to the AES journal *Eugenics*.

As mentioned in Chapter I, the use of memetics to guide and direct this study is unique so far as I have been able to determine, as was the detailed review and analysis of my two primary sources. Without memetics as a theoretical lens and conceptual tool, this study would have been simply an extension of many other scholars and authors going back at least five or six decades. Whether it offers any extra utility or value for future scholars in this field is something that others will have to decide, if anyone even sees this research outside of my supervisory or examination committee. I am rather doubtful that this will happen, mostly due to the fact that memetics remains a fairly obscure field outside the media studies and evolutionary science or related social-science fields. My thesis that eugenics was a naïve or prototypical attempt at memetic engineering, in order to formulate and inculcate a dominant paradigm for social control and directed cultural evolution is also novel. While the same argument could be made for many social movements or scientific-cultural paradigms, the eugenics movement was a particularly vivid example of an intergenerational attempt to inculcate a hegemonic view of society and direct cultural evolution by organized transmission of memes.

Despite the fact that Richard Dawkins' novel creation was initially a thought experiment to bolster his biological theory of the *Selfish Gene* (1976), with nary a thought about its practical uses or larger implications, his creation has grown and expanded into a burgeoning field that is a socio-cultural equivalent of the Grand Unified Theory in modern physics. When used by legions of Internet shills or Russian Troll Factories like the Internet Research Agency in Leningrad (Ioffe, 2017), applied memetics can be a powerful force for persuasion and hardening of opinions and attitudes (positive memetics), or for suppressing dissent and the influence of ideological rivals (negative memetics).

Implications for To-day and To-morrow

While Donald Trump and his faithful surrogates continue to deny any decisive impact or influence by the Russian Internet Trolls and their armies of bots on social media, it is quite apparent to honest observers and security experts that these information warfare campaigns (like Alex Jones' Info-Wars website) are having a profound effect on the political scene and Culture Wars that inflame ideological debates and strain democratic institutions. The 'weaponization' of memes and social media platforms for partisan political purposes may be the biggest threat to liberal democracy since the Bolshevik revolution and the creation of the Comintern in Stalin's Russia. That this threat is now coming from the far-right rather than the far-left is an interesting turn of events, while realignment of global forces along new ideological lines with previously unlikely political alliances (like Russia and Iran, or the United States with Saudi Arabia and the Sunni Arab world) will have important geo-political implications for decades to come.

Just as other political realignments and new technologies had unforeseen consequences throughout history, the fragmentation of Western society into ideological enclaves or 'social bubbles' may have lasting effects that rival or exceed the Protestant Reformation and resulting religious wars that racked Europe for centuries, but now with a global reach. In this multi-faceted schism of more or less homogenous societies into factionalized enclaves or rival mobs, much like the situation in Weimar Germany before the rise of the Nazis to supreme power, the prospects of a memetic Humpty Dumpty being put together again are doubtful at best. Perhaps Bertrand Russell's (*Icarus*, 1924) suggestion of a ruthless, authoritarian One World Government that would crush dissent until a new order had been secured and the rival factions extinguished, is one avenue for renewed cohesiveness around a single worldview and favoured operational paradigms. Whether conventional representative democracy could survive such a memetic cleansing program is also suspect. Just today, I heard Ohio Governor John Kasich predict the end of the two-Party system in America (NBC's *Meet the Press*, February 25, 2018), in favour of a more fragmented multi-Party system, as exists in much of Europe, where minority governments and unstable coalitions are the norm. There is also evidence of the same political fragmentation in Canada, as evidenced by the current (Feb. 2018) ideological debates occurring between Progressive, Fiscal and Social Conservatives in Ontario, which show signs of undergoing schisms into factions or rival camps. The same fragmentation into hardened ideological enclaves is also playing-out in other arenas of our culture: in music, television and movies, or on university campuses and even religious denominations. At the moment at least, it seems the 'splitters' are winning the memetic tug-of-war with the 'lumpers.'

The whole situation reminds me of the periodic disintegration and collapse of ‘Motie’ society in the Sci-Fi classic *The Mote in God’s Eye* (Niven and Pournelle, 1974). It is the tale of an alien society with multiple castes of differentiated sentient forms, where long periods of cultural and technological progress are interrupted by periodic cataclysmic conflicts and a total collapse of civilized society, with a return to barbarism. Superimposing the radical effects of climate change and the growing inequality between rich and poor hardly suggests the situation will improve in the foreseeable future. With the ongoing proliferation of thermonuclear warheads on intercontinental missiles, even to relatively minor powers, we have a foolproof recipe for replicating Niven and Pournelle’s cautionary tale on Earth.

So, while Dawkins saw memetic engineering by experts as a means of creating a harmonious society of enlightened citizens with common goals and a unifying worldview, much as was the goal for eugenics by its visionary founders (as in the ‘Eugenics Tree’ shown in Chapter II and Appendix IV), we are now witnessing the opposite trend. Instead of being a unifying force of progressive cultural evolution, we are experiencing the disintegration of society into a myriad of competing rivals, following the call to action to defend their own cherished memes, memeplex or worldview and eliminate their rivals. Whether this process is being aided by any awareness of the power of memetics to shape opinions or convert people to partisan paradigms is debateable.

While an awareness of memes, meme-filters and filter-bypass strategies should give any memetic warrior an advantage over their naïve rivals, I would speculate that most Internet Trolls and even master ‘Info Warriors’ (like Alex Jones) remain unaware of the theoretical underpinnings of their activities and memetic mercenary mission. Whether some memetic messiah will arrive just in time to save us from ourselves is a tempting thought, but one that is hardly assured or even highly probable. Even if some purported saviour were to take up the call, and offer to lead us to the promised land, his rivals would surely cry ‘Fake News’ and try to drown-out the Gospel of Benevolent Memes with their own counter-programming. The ‘Church of Virus’ mentioned by Dawkins in his 1999 *Time* essay “The Selfish Meme” (see Chapter II) seems content to putter around with clever memetic trivia and inside jokes rather than evangelizing for worldwide conversion to this novel secular faith.

Whether academics, experts, political leaders and committed social activists can actually deliver Dawkins’ utopic vision of an enlightened worldview based on democratic consensus, universal rights and shared progress for all seems a long-shot for all but the most ardent optimists. However, in the long run, it may be the best chance to avoid the fate of the fictional Moties, or the ancient Egyptians, Greeks, Romans, Britons, *et al*, who attempted previous iterations of memetic hegemony.

Facing History and Ourselves

There are many good reasons for educators to study the history of eugenics. Eugenics was, is, as may always be a powerful memplex in modern human societies, even when it goes under alternate names (Osborn, 1968). The racially-motivated uses of biometrics and psychometrics, such as in *The Bell Curve* (Herrnstein and Murray, 1994.), and a plethora of subtle and not-so-subtle social-welfare and private-enterprise mutations of Francis Galton's 'secular religion,' belies the common assertion of the 'death of eugenics' in Nazi gas-chambers. Its widespread and deeply institutionalized educational enculturation and its curricular and methodological remnants remain, even when they are divorced from their origin in scientific-racism and eugenical fervor.

For educators who choose not to forget, and wish to share the history and legacy of eugenics and state-sponsored racism with their students, there is now a truly first-rate educational resource available. *Race and Membership in American History* (2002), published by the *Facing History and Ourselves National Foundation*, in cooperation with Harvard's *Facing History Project*, offers teachers a wide-panorama of the American eugenics movement, from Thomas Jefferson to the present day. It includes a significant discussion of eugenics education, the textbooks and their themes, as well as the eugenic origin and continued use of IQ testing. It is broken up into nine series of short readings clustered around major themes, such as "Eugenics and the Power of Testing", "Toward Civic Biology", and "Eugenics, Citizenship, and Immigration". Each reading has follow-up questions for contemplation, group discussion, suggested projects for further research, as well as an excellent selection of valuable primary and secondary sources. It is suitable as a stand-alone text for a humanities course at the high school senior level; or when supplemented with the listed sources, would be outstanding for use from the undergraduate to the graduate level in a variety of humanities and social-science disciplines.

If I had my wish, this resource would be mandatory reading for graduate programs in educational policy and psychology, and a suggested option for science curriculum students and biology educators. Biologists and graduate students working in the field of human genetics, or engaged in the development of related biotechnologies would also benefit from a course or in-depth personal study of the history and legacy of eugenics. Social-studies teachers and curriculum developers would also benefit from an understanding of the long history and applications of eugenics and scientific racism. Subsequent generations who forget the lessons of this inglorious past, do so at their peril.

Last Thoughts for Future Research and Extensions of this Study

In a previous journal article (Kohlman, 2012), I proposed a study into the eugenics and ‘Newgenics’ of Science Fiction. Numerous science-fiction franchises (Star Trek, Star Wars, Dr. Who, etc.) have explored the future of eugenics and the potential for Brave New Worlds of advanced biotechnology and cybernetic enhancement of mankind to produce updated versions of the ‘Supermen’ formerly envisioned by Nietzsche and the Nazis. If I were ever to land an academic position that allowed me to pursue my research interests, I would love to explore these speculative utopias or dystopias, and the seemingly eternal fascination of these themes by ardent Science Fiction/Fantasy fans.

While the initial fervor for human enhancement through cutting-edge biotechnology seems to have faded or cooled since the ‘Next Generation’ of Star Trek sequels (culminating with Star Trek Voyager’s iconic ‘Seven-of-Nine’ character), I have no doubt that there will be renaissances of this quest for rapid saltations of human abilities through biogenetic-cybernetic advancement. It would make a fascinating study to explore the generational recycling of the idea of engineering future ‘Metanthropos’ (Macfie, 1928), and how the notion of biological or cybernetic superiority has evolved and why it holds such a recurring fascination with fans, especially teenagers or young adults.

For other scholars or academics reading this dissertation in the future, there is obviously much left to explore. This could be further study of *To-day and To-morrow* and even *Eugenics* using alternate theoretical approaches, or using memetics to study other Science-Technology-Society topics. One obvious extension having some immediate societal value or practical application would be a study of Internet Troll Farms or specialty meme-vehicles (like *InfoWars* or *Breitbart*). As memetics develops as a science or applied discipline, there will be numerous applications, such as using memetic principles in science education to address and overcome alternate cultural or naïve conceptions.

For myself, being a journeyman in the study of memetics and eugenics has provided insights into many aspects of human endeavor and what motivates people to do and believe what they do. I no longer think in terms of universal good and evil, right and wrong, advancement versus regression, or the unstoppable imperative of progress. Selfish Memes have converted me into a skeptical agnostic and critic of recycled utopias and simplistic strategies. To paraphrase CNN’s Van Jones, the Truth is Messy. The purveyors of utopic solutions and simplistic slogans are usually just as selfish as the memes they exploit for bumper stickers, stump speeches or sales campaigns. Understanding that may be the best education one could hope for, although it is hardly the way to make a fortune or climb the ladder of academic or corporate success. Being a servant to a practical paradigm or winning worldview, and evangelizing paying disciples into them, is much more lucrative.

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Appendix I: A Brief Memetics Glossary for the Study of Memes in Eugenics¹¹⁹

Active meme: A meme that is incorporated in a host (memetic agent or vehicle) and is influencing its behaviour. *Antonym:* inactive meme.

Belief-space: Essentially a person's memetic worldview; a product of all the memes they have actually incorporated, to various extents. Some memes may be incorporated temporarily (for a social-studies test for instance), without being fully incorporated into one's belief-space. Since a person can only incorporate and transmit a finite number of memes, there is a limit to their belief-space. Memes evolve in competition for niches in the belief-space of individuals and societies.

Censorship: Any attempt to squash or hinder a meme(s) by suppressing its sources or vectors. Censorship is analogous to halting mosquito-borne diseases by spraying insecticides in breeding pools or infested areas. Censorship rarely fully eliminates strongly embedded target memes, merely driving them underground or into more amenable environments. Thus, suppressed memes may be exiled into 'safe communities,' such as with racial supremacy memes being preserved as eugenics in 'old stock' WASP culture of yesteryear, or today's White Supremacist or neo-Nazi groups.

Co-meme: A meme that has symbiotically co-evolved with other memes, to form a mutually-assisting memeplex. For instance, those who believe that intelligence tests actually measure a native or innate intelligence (IQ) in people that is largely undiminished by environment also believe that these tests are useful and valid in sorting students into streamed classrooms or as selective filters.

Cultural anthropology: Cultural anthropology is a branch of anthropology focused on the study of cultural variation among humans. Historically, cultural anthropology was focused almost entirely on field work and gathering data, and unlike the Physical (or Racial) Anthropology that was dominant in the Progressive-era, it resisted neo-Darwinian theories and hereditarian applications from biology like 'genetic determinism' (although neo-Lamarckian concepts were quite widespread). Recently, the discipline has undergone something of an insider revolution with the 'science' of memetics offering a long-sought theoretical foundation.¹²⁰

Cultural evolution: The 'evolution' of culture. A more memetically neutral and academically respectable synonym for memetic evolution. See Linquist (2010) for a comparison of different academically acceptable paradigms of cultural evolution, including memetics.

Dormant meme: A meme that is currently inactive. Dormant memes can be inside human brains, inside computers or in the environment. A dormant meme that has been reactivated in a host is known as a latent meme. *Synonym:* inactive meme.

Earworm: A slogan, phrase or melody that rapidly infects a population. A dread example would be the simple, repetitious lyric and melody of the song *Macarena*. (from German, ohrwurm=earworm.)

¹¹⁹ Adapted from Aunger (2000), Dawkins (1976, 1981), Distin (2005), Linquist (2010) and Tyler (2011).

¹²⁰ Compare this to the assertion by "Eugenics and Education" by C.C. Little in "The Birthday Number" of *Eugenics* (see Chapter IV – Section I) that the science of Eugenics was to provide the theoretical foundation and scientific underpinning for all organized education and pedagogy.

Endo-toxic memes: Dangerous to oneself or one's group. Endo-toxic memes promote the destruction of oneself or an identified group. Suicide memes are harmful to both individuals and their social group. Cults can be particularly prone to mass suicide if their leader(s) promote or demonstrate the sacrificial value of their act. 'Race-suicide' was a popular meme in eugenics dogma, and was especially applied to WASPs as a result of unrestricted immigration, differential access to and use of contraceptives, and the application of charity or public welfare to support the unfit or racial undesirables. Madison Grant's *Passing of the Great Race* (1916) was the ultimate tragic ode to WASP race-suicide among the formerly great but now declining Nordic race.

Exo-toxic memes: Dangerous to others. Highly exo-toxic memes promote the destruction or elimination of persons other than their own memetic worldview (belief-space), particularly those who are carriers of rival memes. (Such as: Nazism, the Inquisition, The Bolshevik Revolution and Civil-War in Russia, the Cultural Revolution in Maoist China or the Khmer Rouge regime of Pol Pot, or the racial pronouncements and prescriptions of the Ku Klux Klan.)

Fecundity: Having lots of memetic offspring. One of the 'big three' meme properties (longevity, fidelity, fecundity).

Fidelity: Producing high-quality reproductions or un-mutated copies. Another of the 'big three' meme properties of successful memes or memeplexes.

Herd behavior: Describes how individuals in a group can act together without central planning, by simple imitation of each other's actions and espoused memes. In people, herd behavior often leads to the disparaging term 'sheeple' to describe those who are locked into an imitated memeplex, or even worse, a 'poseur' who imitates the behavior without being committed to the ideals, struggles or sacrifices of the group.

Horizontal meme transfer: The transfer of a meme between peers or people of the same generation, the cultural equivalent of horizontal gene transfer by plasmids between bacteria. This process is much more rapid in humans than vertical transfer between generations, and is one main reason why cultural evolution in modern humans is so much more rapid than biological evolution.

Host: A person who has successfully incorporated (or been infected by) a meme or memeplex. They can thus become a memetic agent if they act-on the meme, or pass it on to others.

Inactive meme: A meme that is incorporated into a host but is not significantly affecting its behaviour. *Antonym:* active meme. *Synonym:* dormant meme.

Lemming: A member of a crowd with no originality or voice of its own. One who speaks or repeats only what they have been told (after the now debunked myth that lemmings jump over cliffs in huge masses, if another lemming does so first). *Synonym:* Sheeple.

Longevity: Having a long active life in the meme-pool (or repeated periods of activity following a dormant stage). Third of the 'big three' meme properties theorized by Dawkins (with fidelity and fecundity). For instance Eugenics had several active periods in history, notably in ancient Sparta, in Norse societies like the Vikings, and popularly again in Interwar America and Nazi Germany. Even when organized eugenics was dormant however, many of the constituent racial and hereditarian memes survived in active or naïve forms.

Meme: ('meem') Any simple information pattern or symbolic representation of sufficient 'contagion,' to be imitated. Memes replicate by 'infecting' other host minds and altering their behavior, causing them to incorporate and propagate the pattern by any form of imitation. The term was coined by Richard Dawkins (1976), as an analogy with genes for the transmission of traits in biological inheritance. Examples of memes include slogans, catch-phrases, fragments of melodies or lyrics, cultural icons, popular inventions, marketing logos and fashions. An idea or information pattern is not an active meme until it causes someone to imitate it, replicate it, or repeat it to others. Ardent proponents of memetics (like Susan Blackmore) argue that all cultural knowledge is memetic.

Memetics: The study of memes and their social effects, and a budding social-science sub-discipline in some academic areas (for instance: memetic computing in computing science).

Meme entry: By analogy with virus entry. The penetration or by-passing of the host's meme-filters by a meme. Techniques used to facilitate this this include Trojan horse memes, sympathetic co-memes and active use of immunosuppressants.

Meme expression: (Synonym **memotype**) Activity by a meme in a host to express it through behavior (imitation) and retransmission to others. By analogy with gene expression or **phenotype**.

Meme filters: A developed defense against infection by foreign, hostile or exo-toxic memes. Most successful memeplexes (like religions or political ideologies) include prohibitions against rival memes or instructions to disregard memes from other memeplexes. For example, that meme-filter currently labelled as 'Islamophobia' is a popular form of established filter, characteristic of Fundamentalist Christians, fervent Zionists, and many ardent White Supremacists.

Meme flow: In population memetics, meme flow is the transfer of memes from one organic population to another - or from one cultural population to another. By analogy with gene flow in population genetics.

Meme Fountain: A prolific source of novel or modified memes, meme-clusters or complete memeplexes (paradigms) such as a new academic discipline or school of thought; who is also effective at proliferating their memes through the Zeitgeist or society. Francis Galton, as the father of eugenics as well as many quantitative or statistical methodologies (biometric indices, regression towards the mean, correlational coefficients to name but a few), would be the quintessential meme fountain for eugenics and the hereditarian worldview.

Memetic infection: Successful incorporation or encoding of a meme in the memory of its host, especially through involuntary means (thus avoiding or bypassing the functional memetic filters in a rationale memetic agent). A memetic infection can be either active or inactive. It is inactive if the host does not yet imitate or re-transmit the meme to other people. An active infection causes the host to want to imitate the meme and infect others. Highly active hosts of novel or re-discovered dormant memes are known as *meme-fountains* (aka 'Trolls' or 'Memebots' in Internet culture). A person who is exposed to a new meme but who does not remember it (consciously or otherwise) is not infected. A person can be unconsciously infected and become an active host, and even transmit a meme without conscious awareness of the fact. Many societal norms are transmitted this way, bypassing the active meme-filters of would-be hosts, especially from parent to child without critical analysis or examination.

Memetic infection strategy: Any memetic strategy that encourages infection of a host. For example: jokes encourage infection by being humorous, infectious tunes by evoking raw emotions, slogans and catch-phrases by being ‘catchy’ and repeated often. In a memplex, the ‘bait’ co-meme is often central to the infection strategy. Thus, Donald Trump can bait those who believe they have declined relative to the Other with memes like “Make America Great Again” in order to sell political solutions like “We’re Gonna Build the Wall” or a “Complete Muslim Ban” to solidify the loyalty of the disaffected and alienated that form the core of his political support base. A prime example of an infection strategy is the *Goliath Effect*, where the active memetic agent paints the potential host as a victim and plays on their known insecurities, such as: “If elected, Crooked Hillary will stack the Supreme Court with Liberal judges and abolish the 2nd Amendment.”

Memetic immunosuppressant: Factors that reduce a person's innate immunity to novel memes or memplexes. Common immunosuppressants include: arduous travel, exhaustion, insecurity, shock, isolation, stress, drugs, loneliness, alienation, paranoia and hypnosis. Applications include concentration or “re-education” camps, or recruiters for cults that target airports or bus terminals looking for transients with depressed memetic immunity.

Memplex: A set of mutually-assisting memes which have co-evolved a symbiotic relationship. Memplexes may be fairly small meme-clusters, such as all the constituent memes expressed in a poem or song that someone has memorized or repeatedly heard. More complex ones would include religious and political dogmas, social movements (like Eugenics in Interwar America), artistic styles, cultural traditions and customs, scientific paradigms, or discrete languages. Similar terms include meme-complex, and may range from current Party affiliation, all the way to one’s entire worldview (*Weltanschauung*) or belief-space. Example: *Nordicism* was a complex memplex at the paradigm level.

Meme-pool: The full range of existing active and dormant memes accessible to an individual or a given culture. Learning languages and traveling are methods of expanding one's meme pool, as are books and mass-media. Public education is a means of promulgating a large set of memes (both explicit and implicit) to a mass audience. Today the digital information contained by the Internet expands the potential meme-pool of both individuals and cultures faster than anyone or any single group can incorporate them. Compare to “belief-space” in previous entry.

Meme regulation: Anything that regulates the activities of memes, to affect meme expression and transmission. By analogy with gene regulation.

Meme warfare: A struggle for dominance between mutually exclusive memes or memplexes. A trivial example would be people choosing sides in a celebrity break-up and engaging in flame-wars on social media. A serious example is “Stalin’s Science Wars” (Pollock, 2006) in the late 1930s and after WW II, between Lysenkoists and Western genetics (Kohlman, 2011). The ultimate meme-war was Hitler’s Nationalist-Socialist crusade against ‘Jewish-Bolshevism’ (Operation Barbarossa).

Meme's eye view: Taking the perspective of the meme in cultural evolution rather than individuals or groups of hosts. This is an analogy with Dawkins’ ‘selfish-gene’ in biological evolution, as opposed to considering evolution from the perspective of the individual, group, or species. Memes were originally an abstract idea to explain this thesis, in turn leading to “The Selfish Meme” (1999).

Memetic drift: Memetic change as a result of random changes - as opposed to selection. By analogy with genetic drift in genes and populations over long periods of time.

Memetic engineering: One who consciously devises memes, through meme-splicing and memetic synthesis, with the intent of altering the attitudes and behavior of others. Writers of manifestos, political speeches or ads, and of course, copy writers for commercials are today's memetic engineers.

Memetic evolution: The evolution of memes in a society. *Synonym:* cultural evolution.

Memetic immunity: Resistance to memetic infections or the uncritical incorporation of hostile or rival memes. Memetic immunity can arise from education, indoctrination, skepticism, or even faith. As adults we normally develop mental filters to dangerous or ridiculous memes, such as the supposition that "Hillary Clinton is the Devil." However for true believers of existing co-memes about Hillary Clinton that have long circulated, the incorporated co-memes allows the target meme to penetrate the filters without being fully analyzed or checked for credibility. Testing on focus groups would have confirmed the effectiveness of the strategy on targeted supporters.

Memetic linkage: The tendency of 'nearby' memes (from a concept map or hierarchy) to be copied and inherited together; by analogy with the 'genetic linkage' of closely spaced genes on a chromosome. An example would be Trump linking Hillary appointing "Liberal judges" on the Supreme Court to threatened 2nd Amendment rights. This meme-cluster also employed the Goliath Effect to link the Liberal Establishment and its 'New World Order' (which doesn't allow for individual gun ownership) to Hillary Clinton.

Memotype (aka Phenotype): The individual expression of a meme, as an analogy to the body traits or behaviour of an organism is the physical/behavioral expression (phenotype) of the gene (genotype). Close synonym of sociotype or cultural manifestation of a meme or memplex.

Mimesis: Imitation, mimicry – a philosophical term, from ancient Greek and used as Dawkins' linguistic basis for meme.

Mutation: A change in which an existing meme takes on a slightly different form during incorporation, storage or retransmission. For example, when a popular brand-name evolves into an iconic image, or a catchphrase is personified as a 'poster-boy' (like the meme 'Prevent Forest Fires' evolving into an icon of Smoky the Bear), it can be said to have undergone a significant mutation.

Payload: Deliverable 'cargo' memes. Desired memes to be spread are attached to a symbiotic co-meme or any widely accepted meme in the target audience, and then spread via memetic hitchhiking. (See Infection strategy above and entry for Retromeme below.)

Population memetics: Population memetics is the study of the frequency of memes and their expression in a population, and how this changes under the influence of natural selection, memetic drift, mutation and meme flow. By analogy with population genetics.

Propaganda: Any purposeful communication that is aimed at influencing individuals or a community so as to promote acceptance or uptake of selected memes or a memplex.

Replicator: Term used by Dawkins to describe anything of which reliable copies can be made in a sequence. Applies to DNA/RNA, etc. in biological processes, or to memes in cultural transmission.

Replication strategy: Any memetic strategy used by a meme to encourage its host to repeat the meme to other people.

Retromeme: A meme which attempts to splice itself into an existing meme or memplex. The combination may then become linked and spread via memetic hitchhiking. Adaptation of retrovirus.

Selfish meme: Selfish meme theory holds that cultural evolution occurs through a process involving differential survival of competing memes. By analogy with Dawkins' concept of the selfish gene.

Seinfeld effect: Term for when a meme is believed to have begun from a certain source when it did not. It was only referencing an already existing meme, making it 'go viral.' A good example would be Trump's memetic appropriation of "America First" (originated in isolationist circles in 1920s America) and "The Silent Majority" (previously used by Richard Nixon)

Threat: The part of a successful memplex that encourages adherence and discourages violation or mutation (heresy). Example: 'Hell' is an effective threat co-memplex in some religious schemes.

Tipping point: Critical threshold beyond which a meme starts to spread rapidly. It may be reached by mutation, hitchhiking, recombination, etc. For instance, the tipping point for meme theory was the popularization of the Internet in the 1990s.

Tolerance: A meta-meme which allows for the peaceful coexistence of a wide variety of memes (and their phenotypes or sociotypes). In its purest form, tolerance allows its host to be repeatedly exposed to rival memes, without active infection. Tolerance is a central co-meme in a wide variety of schemes, particularly 'liberalism' and 'democracy.'

Trojan meme: Adapted from 'Trojan Horse' computer viruses. Refers to a scheme for bypassing any targeted host's meme-filters, by using sympathetic co-memes to be taken into a trusted zone.

Troll: Refers to a person who posts inflammatory, rude, or insulting posts on a social media forum for the purpose of creating controversy, or provoking replies. Sometimes hired by agencies or even foreign governments to influence memetic uptake or defend against hostile memes. (aka Memebot)

Vector: A medium, method, or vehicle for the transmission of memes. Almost any individual, group or communication medium can be a memetic vector. The Internet is the ultimate vector for memes.

Vaccine: a memetic vaccine against hostile or harmful memes, by analogy with vaccine. A vaccine confers memetic immunity against certain memes, allowing a person to be exposed without being infected. Common immunity-conferring memes are faith, skepticism and tolerance. Suicide prevention programs are an attempt to immunize vulnerable people against suicide memes.

Colour Code Key for Meme-Maps throughout this Dissertation

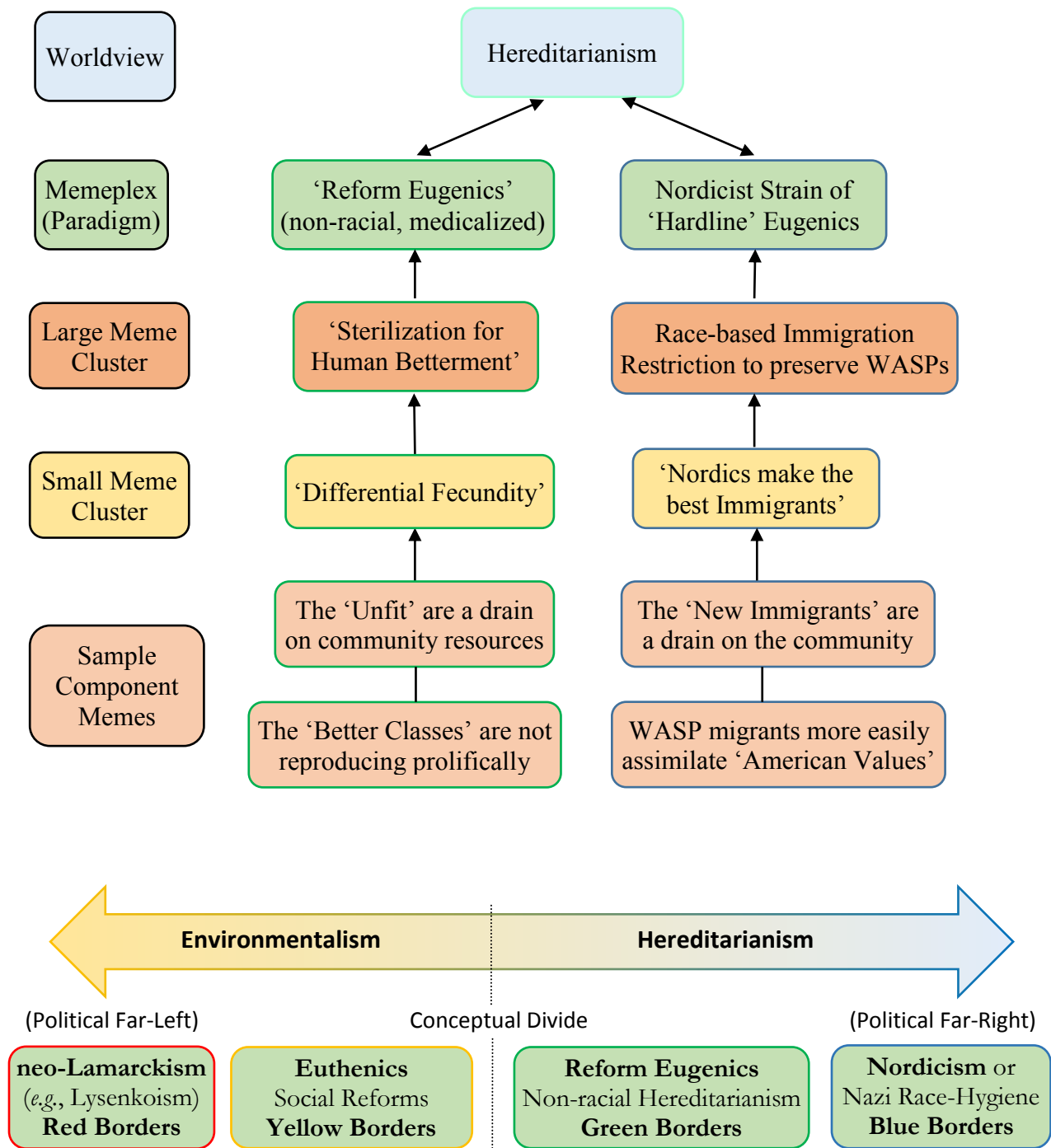
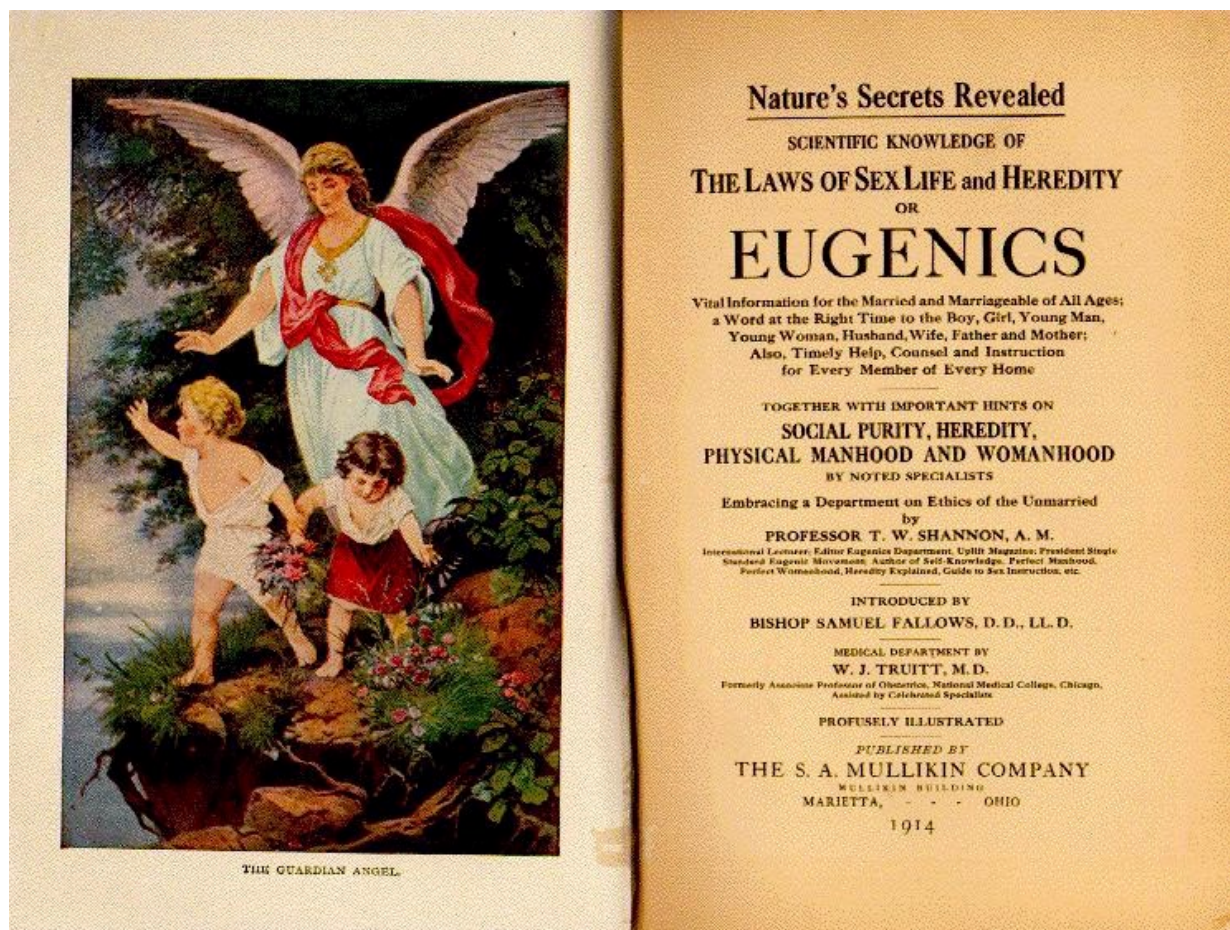


Figure A1-1: Colour-Code Key for Meme-Maps. In addition to the four main memeplexes of the above spectrum, purple borders are used in some meme-maps to connote memetic strategies or conceptual schemes used in eugenics education in Chapter III, IV and V.

Appendix II:

A Brief Historiography of Eugenics and Eugenics Education



Part A: A Brief Historiography of American Eugenics in the Progressive-era

Comprehensive histories of modern eugenics almost always begin with Sir Francis Galton (1822-1911) and the social-Darwinism prevalent in Victorian England, as the ‘tap-root’ that became the memetic template upon which enthusiastic eugenics societies around the world composed their variations. Since its original elucidation by Galton, the *Founding Father of Eugenics*, history played a central role in explaining, illustrating, and justifying eugenic themes, agendas and programs.¹²¹ For Galton’s *Hereditary Genius* (1869), he also pioneered *historiometry* (historical study of individual characteristics or general human progress, using quantitative statistical methods), which, like the myriad other methodologies used by eugenics, was passed on to his disciples (Woods, 1909, pp. 703-704).¹²² This was carried to extremes in one of the many “Genetic Studies of Genius” by psychologist Lewis M. Terman (1877-1956), of Stanford University. Terman and his graduate students estimated the I.Q. of hundreds of historical celebrities going back to Julius Caesar, judged by both the quantity and quality of the biographical data available, and published their pronouncements in Volume II of *Genetic Studies of Genius* (1926).¹²³ Galton, along with his protégé and paladin Karl Pearson (1857-1936)¹²⁴ bequeathed to the natural and social sciences a large corpus of quantitative research methods and statistical techniques that are still used today, often without the knowledge by their modern practitioners of their eugenic origins (Carlson, 2006, pp. 56-59).

Even before Galton’s synthesis of the ‘science of human betterment’, modern history and historiography were important pillars in the formulation of cultural and biological theories of race, going back at least to the great philosophes of ancient Greece. The racial theories and definitions that were to be used by eugenicists in America, Britain, Germany and beyond, owed their existence to an august Western tradition and a prodigious volume of racial history.¹²⁵ These historical memes were to interbreed with new applied natural and social sciences that also owed a huge debt to the traditions of natural history, philosophy and theology (Ede & Cormack, 2005).

¹²¹ For Galton’s propensity to count and measure anything, see Daniel Kevles, *In the Name of Eugenics* (1995), 7-8.

¹²² This short article includes a brief bibliography of historiometry as applied to eugenics.

¹²³ One of five volumes in the series edited by Terman. See Stephen Jay Gould’s *The Mismeasure of Man*. (1981, 1996), pages 213-221, for a critique of this purportedly exact science, betraying its statistical finagling and dubious assumptions by today’s standards. Terman estimated Galton’s I.Q. at 200. Terman’s *Stanford-Binet Revision* became one of the most common I.Q. tests for educational use.

¹²⁴ See Chapter IV for more on Pearson’s influence on eugenics, education, research methods, and for writing a new *Grammar of Science* (1900) for a new Age of Man. Pearson later penned a three-volume biography, *The Life, Letters and Labours of Francis Galton* (1914-24-30). He refused his own K.B.E. (Engs, 2005, pp. 174-176).

¹²⁵ One of the most comprehensive studies is Ivan Hannaford’s *Race: The History of an Idea in the West* (1996).

In America, the seminal ideas of Galton and other pioneers combined with pre-existing *Nativist* or *Nordic* biases and prior strains of scientific-racism, such as Samuel G. Morton and the *American School of Anthropology*.¹²⁶ In the first-half of the *American Century*, popular eugenics education for the burgeoning middle-classes and professionals, and formal courses for future generations who would inherit the onus of racial civic-duty, were seen as vital to the growth and success of the movement (Selden, 1999, pp. 22-30).¹²⁷

Popular eugenics education progressively pervaded America, becoming prominent in fairs, museum exhibitions, lectures, and even in church sermons (Rosen, 2004). During the interwar period, hundreds of colleges, universities, and normal schools offered formal eugenics courses to the tune of 376 in 1928 (Cravens, 1978, p. 53).¹²⁸ High schools and junior-colleges often embedded eugenics within civic-biology, home-economics, or social-hygiene courses. In Western Canada, eugenics also became popular, especially in Alberta, once immigration patterns switched away from primarily Nordic regions to Eastern or Southern Europe and the Asian Pacific-rim, in the immediate decades before and after World War I (Grant, 1933).¹²⁹

After the Nuremburg Trials revealed the overt racial-bias of American-style eugenics, organized eugenics went underground or was rebranded as *Physical Anthropology*, *Social Biology*, *Population Studies*, *Family Planning*, *Genetic Counseling*, etc., to avoid the links with the mass euthanasia and sterilization campaigns of Nazi race-hygiene programs that culminated in the Holocaust.¹³⁰ However, the transmission of liberal or neo-eugenic memes continued, often with its historical associations being sanitized or ignored entirely (Kevles, 1995).

¹²⁶ The infamous case of Samuel G. Morton (1799-1851), a prominent Philadelphia physician, collector of skulls and amateur anthropologist, is now considered one of the most embarrassing episodes in the history of American science. Morton amassed a personal collection of almost 1000 human skulls, from various races and parts of the world. His empirical measurement of the cranial capacity of those skulls, and the attempted correlation with racial intelligence, primarily by his supporters, brought Morton and this area of research to international fame. They are most remembered for their assertion that the various human races are different species, with separate origins (polygeny). Although the science and logical arguments they held as truths have been discredited, the underlying assertion that there is a physiological basis for the inherent inequality of human races is still alive today. See the chapter on Morton in Stephen Gould's *The Mismeasure of Man* (1996); and William Stanton's *The Leopard's Spots: Scientific Attitudes Toward Race in America 1815-59* (1960) for the full story of this earlier brand of scientific racism in America, and its tenacious persistence even in the face of overwhelming subsequent contrary evidence.

¹²⁷ See also Nicole Rafter (2006) in *Apes, Men and Teeth: Earnest A. Hooten and Eugenic Decay*, in *Popular Eugenics: National efficiency and American mass culture in the 1930s*, pp. 249-268, as well as Wendy Kline's and Michael Rembis' contributions to the same volume.

¹²⁸ Also see Selden, 1985, 1999 for a more complete genesis and evolution of formal eugenics education.

¹²⁹ For more on Canadian eugenics and especially eugenic sterilization in the Alberta context see Grekul (2008).

¹³⁰ For the launch and trajectories of Imperial German eugenics, race-hygiene, geo-medicine and their Nazi progeny, see Weindling (2000) *Epidemics and Genocide in Eastern Europe, 1890-1945*. For a broader view, including the notorious Soviet/Khmer/Serbian analogues, see Weitz (2003) *A Century of Genocide: Utopias of Race and Nation*.

Many of the leaders in the eugenics movement were influential scientists, as well as educators, administrators and health professionals. From the natural sciences, such as evolutionary biology and genetics; to the social sciences such as anthropology, psychology and sociology; to curriculum and educational policy, eugenics was based on the melding of a broad range of fields, whose ‘harmonious combination’ was foreseen as leading to scientifically-based societal efficiency and progress, and the eventual rise of “the Overman” (Bobbitt, 1909, p. 385).¹³¹ My doctoral research has explored this interdisciplinary *mélange*, from its foundational roots. See the ‘roots’ of the ‘Eugenics Tree’ in Figure A2-1 below.

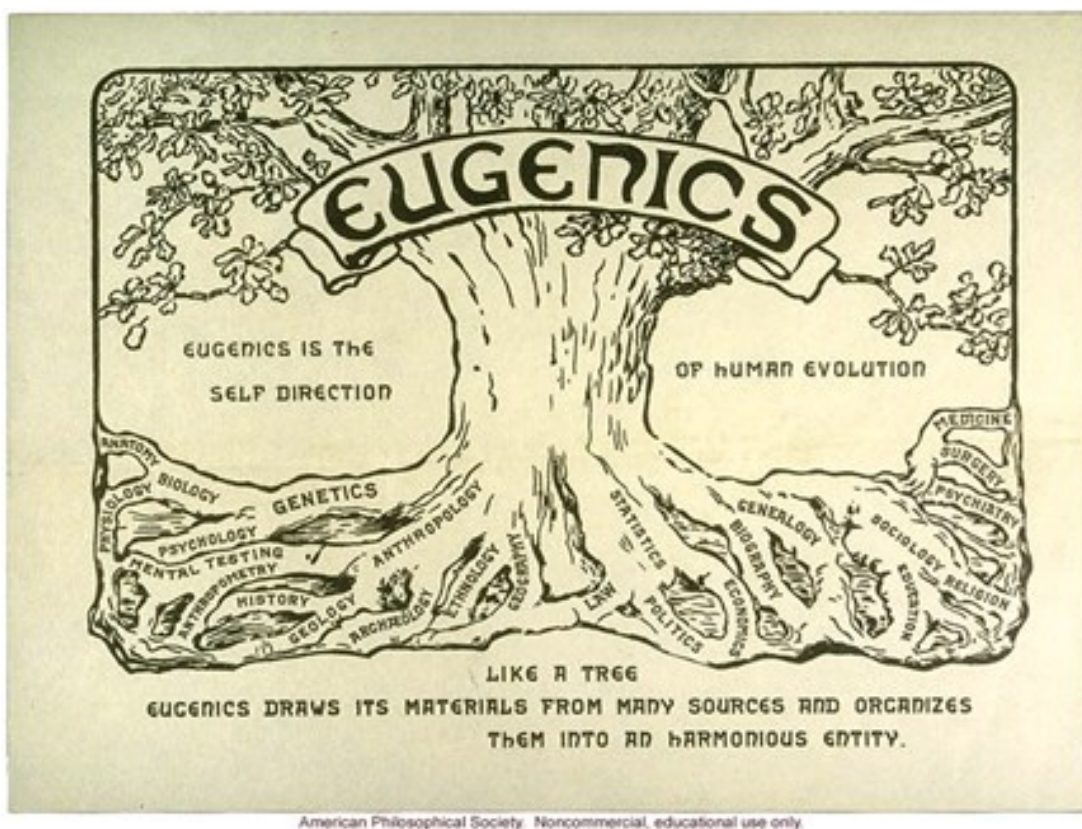


Figure A2-1: The ‘Eugenics Tree’ from a poster for the *Second International Congress of Eugenics*, held at the American Museum of Natural History in New York, September 22-28, 1921. The congress was presided-over by Henry F. Osborn, president of the museum, and one of the *Nordic/Nativist* leaders of the movement. This image was very popular and often reproduced to illustrate the interdisciplinary nature of eugenics. This eclectic notion even prompted the use of the term ‘niche’ to highlight the diverse contributions of researchers and scholars from many academic specialties, the roots of the eugenics tree. Those roots ran deep, and the eugenics tree survived periodic droughts, prunings and evolutions. Its progeny still survive under the shade of alternative aliases and empirical technologies whose eugenic origins have been forgotten or sanitized.

¹³¹ Bobbitt was a doctoral student of G. Stanley Hall at the turn of the 20th Century, during the formulation of the ‘Child Study’ movement. His later major work was *The Curriculum* (1928).

Just as various disciplines fed into the Progressive-era eugenics movements, the histories, critiques, and even neo-eugenic revivals, have come from an even more diverse range of experts and scholars; not surprising given the rapid expansion of academic specialization in the post-war university system. History was an important feeder discipline for eugenics, and many eugenics texts made extensive use of historical sources, going back to Plato and Classical Greece.¹³² An important example applied explicitly to eugenics that will be expanded in a later section is Madison Grant's influential, *The Passing of the Great Race* (1916) that even served as a secular 'bible' for others, including Hitler and Hans F.K. Gunther in Germany (Black, 2003, p. 263).

Much of the recent scholarly research has been focused on the American eugenics experience, perhaps best exemplified by historian of science Daniel J. Kevles' *In the Name of Eugenics* (1985, 1995), which also served as my formal introduction to the subject in Dr. Robert Wilson's STS 400 course. Not surprisingly, the Nazi race-hygiene programs and pogroms have also been the subject of much study, beginning with their roots in Imperial and Weimar Germany (Black, 2003; Weindling, 1989, 2000; Weitz, 2003). There has also been a concerted attempt to survey eugenics movements around the world, again mostly written by historians of science and/or medicine, such as Adams (1990).¹³³ But many local or ex-patriot historians, of all stripes, have written histories of eugenics in their homeland.¹³⁴ In addition there have been numerous important works written by a variety of social scientists, cultural and feminist historians that have explored the cultural impact and legacy of the movement.

Some historians have even specialized in the fragmented remnants of the movement, such as Planned Parenthood. Others have documented neo-eugenic advocates and organizations, such as Nobel laureate William Shockley's attempted eugenic revival in the 1960s, best exemplified by William Tucker's books on *The Pioneer Fund* and its funding of scientific racism (Tucker, 1994, 2002). One of these latter-day *Pioneer Fund* beneficiary efforts, Herrnstein & Murray's bestselling book, *The Bell Curve* (1994), prompted eugenics critics to revise their previous works (such as Gould, 1996), or to write new retorts (Fraser, 1995). In the education field, scholars such as Steven Selden (see subsequent historiography of eugenics education) and the late S.J. Gould have studied the curricular and educational penetrations, including the overt racial biases or influences, as well as the common empirical/statistical abuses of past practitioners.¹³⁵

¹³² A classic American example of racial history is William Z. Ripley's, *The Races of Europe* (1899).

¹² One recent example of such a regional survey is the edited collection by Marius Turda & Paul Weindling (2007), *Blood and Homeland: Eugenics and Racial Nationalism in Central and Southeast Europe, 1900-1940*.

¹³⁵ See Gould's *Mismeasure of Man* (1996), especially chaps. 5, 6 and appended essays on race and *The Bell Curve*.

The critical historiography of eugenics, after a slow start in the 1960s and 1970s (Haller, 1963; Cravens, 1978), gained momentum with the revival of interest in neo-eugenics as part of the rise of biotechnology and genetic engineering in the 1980s, culminating with the Human Genome Project. One of the many ironies involved in eugenics has been the formation of a eugenics museum and bioethics research institute at Cold Spring Harbor, New York, site of the former *Eugenics Record Office*. Once the headquarters of the American eugenics movement Cold Spring Harbor is now host to many scholars, including historians of science, and has its own press that has published numerous works on the eugenics movement and the history and impacts of scientific racism.¹³⁶

Another impetus has been the ‘end’ of the Cold War, especially after the break-up of the Soviet Union and the opening of archives, both in Russia and the various satellite states. These have yielded numerous books and other scholarly works on the connection of American eugenics and Nazi race-hygiene to the Holocaust, to ethnic-cleansing in Eastern Europe, and to Soviet-style analogues, such as *Lysenkoism* or Mao’s *Great Leap Forward*.¹³⁷ In addition, the evolution, increasing interdisciplinarity and ‘radical’ reshaping of history since the counterculture of the Vietnam and Watergate generation and its many off-shoots (human rights/disability rights, feminist movements, etc.) have triggered new investigations with novel approaches, orientations, and foci. Like eugenics itself, this interdisciplinary approach has yielded a huge corpus of scholarly work; one too broad to fully summarize in anything shorter than a book-length review.

This historiography will be a rather more general and cursory review of some exemplary works from these various categories identified above. One of the greatest problems one faces when trying to cover the broad history of eugenics is organization. While a chronological narrative may be a logical historian’s choice when covering one aspect of eugenics, or a specific period of the movement in a particular region, this approach breaks down when dealing with a macroscopic view of the broad subject. Another organizational approach might be to parse the subject by the various subject disciplines that fed eugenics, such as anthropology, genetics, medicine and public health, etc., and were reflexively influenced by it. Still another might be to cover the history of eugenics from the

¹³⁶ Good examples are Elof Axel Carlson, *The Unfit: History of a Bad Idea* (2001) and *Times of Triumph, Times of Doubt: Science and the Battle for the Public Trust* (2006); and Witkowski & Inglis (eds.), *Davenport’s Dream: 21st Century Reflections on Heredity and Eugenics* (2008). All are published by the Cold Spring Harbor Laboratory Press. One of the latest ironies regarding American eugenics was the forced resignation of Nobel laureate (1962) and DNA-guru, James D. Watson in late 2007, as chancellor of the Cold Spring Harbor Laboratory. This was after a spate of ill-advised quotes in the press and comments during public-speaking engagements that were interpreted as support for racist neo-eugenics or outdated racist/sexist tendencies. He has since wasted no opportunities to refute the charges and clear his name, and was given a *chancellor emeritus* title at CSHL after the furor subsided.

¹³⁷ A fine exemplar is Ethan Pollock’s *Stalin and the Soviet Science Wars* (2006). Also see Julian Huxley, *Heredity East and West: Lysenko and World Science* (1949) for a contemporary critique of this Soviet-analogue of eugenics.

viewpoint and research methods of a particular modern discipline or methodology, such as bio-ethics, subaltern ethnology, gender studies or social-psychology.

I have chosen to combine these approaches, in what I hope is an appropriate method for a short study. My brief historiography will be organized around four of the major works of American eugenics from the height of the progressive era, published over a four-year span just before World War I. The first, although the last published, is Madison Grant's *Passing of the Great Race* (1916), which certainly had the greatest geo-political impact of all, especially in Nazi Germany. This is perhaps because it is written by an amateur historian, rather than a scientist or medical specialist. The second, related work is *Old World in the New* (1914), by sociologist Edward A. Ross, his first book-length publication after his conversion to the cause of eugenics.

Next is Charles B. Davenport's *Heredity in Relation to Eugenics* (1911). This seminal work, by the recognized leader of the American eugenics movement used genetics, human geography, sociology and a blend of amateur folk-medicine and ethnology to make the case for eugenics as an academic field of study and applied science for the future, one of vital importance to the future progress and prosperity of America. Last will be Henry Goddard's *The Kallikak Family* (1912), which, along with his later efforts, was seminal in the fields of psychometrics and educational psychology; and in public health debates or policies, such as restricting immigration, segregation and sterilization of the 'unfit'. See Figure A2-2 on next page for an illustration of these societal uses of eugenics research. These foundational works were informed by a diverse range of American and European scholars, and then in turn guided or influenced new leaders as American eugenics reached its apex in the 1920s, softened in the 1930s to include environmental influences (*euthenics*), and was 'rebranded' or 'transmuted' in the aftermath of World War II.

In considering each of these major works, I will point to more recent related scholarship: critical histories, scientific refutations or sociological re-appraisals; and in the case of Henry Goddard's career and published works, his ideological and methodological heirs. Perhaps the greatest active legacy of eugenics is in the field of psychology (specifically psychometrics and aptitude testing) where the technologies and statistical techniques have been deeply embedded, and their origins almost forgotten.

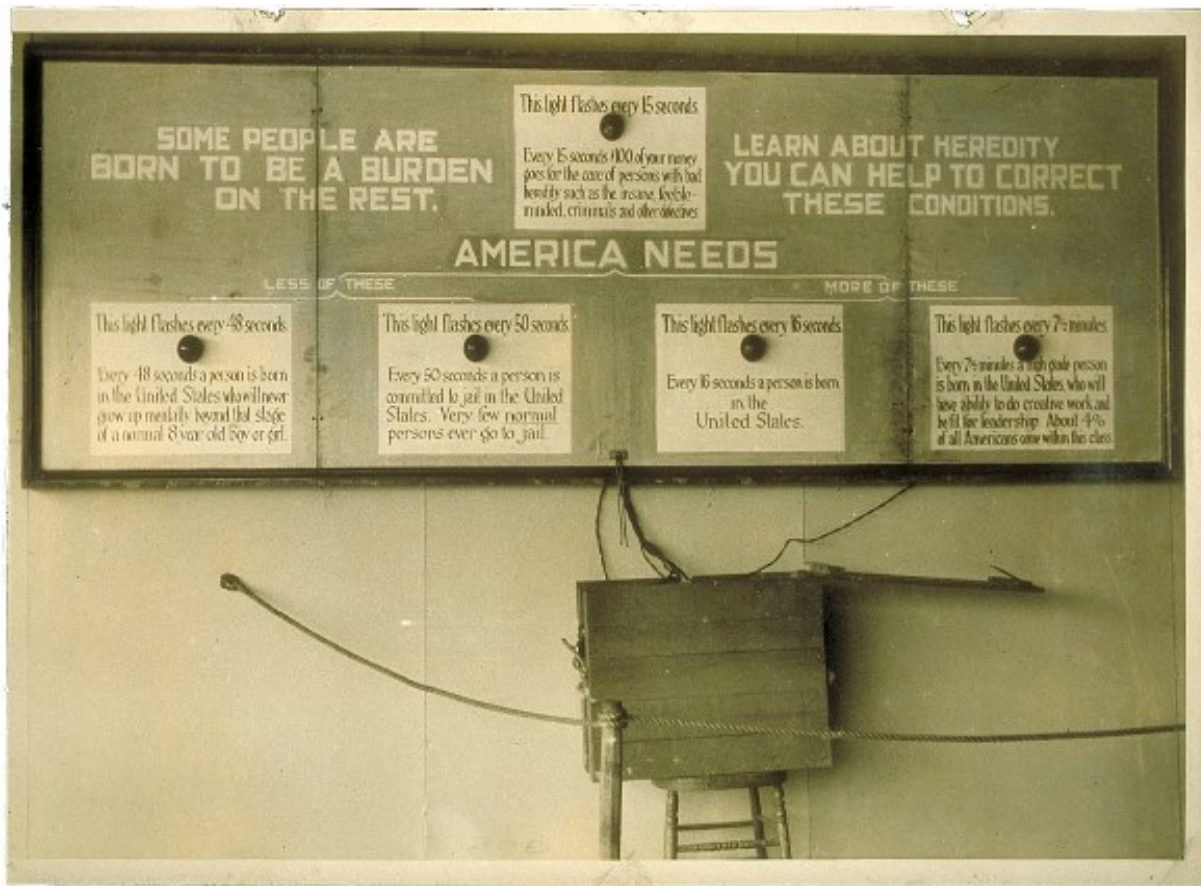


Figure A2-2: A display from the 1926 *Race Betterment Conference*. The conference was in Battle Creek, Michigan, the headquarters of John H. Kellogg's empire (of Kellogg's Corn-Flakes fame).

This is a fine example of a first-generation multimedia display, used to educate the public in the basics of eugenics. It denotes the main ecological strata in contemporary America, through the lens of eugenics and social hygiene, in other words, the major niches of American society.

On the left: the 'burdens to society' or 'racial degenerates' (the insane and feebleminded, the delinquents and criminals, and others requiring State care and the continued support of taxpayers). These are the niches targeted by 'negative eugenics' programs. These 'social problem groups' were often analogized as parasites, harming healthy society and consuming a disproportionate amount of resources versus their minimal perceived contributions or benefits.

On the right: the 'normals' and 'men of eminence and leadership ability'. Only four percent of the population is deemed worthy to lead the rest. While the normals were to be preserved as the working class and drones of society; the destiny of the eminent and eugenically superior is to form the leadership caste: politicians, lawyers, clerics (Protestants only please), as well as the senior administrators, scientists and medical professionals. This four percent would act as new aristocracy ushering in a new golden-age of American democracy. See the quotes by Goddard in the later section for the textual analogue of this display – perhaps even its source. This kind of semiotic translation into easily assimilated hereditarian concepts was a Hallmark of typical Progressive-era efforts at popular eugenics education.

Madison Grant – The Rise and *Passing of the Great Race*

Madison Grant (1865-1937, Columbia law degree 1890) was a stalwart of American eugenics and a close friend and advisor of Teddy Roosevelt (Engs, 2005, 102-103).¹³⁸ Grant also gained fame as a conservationist, leading the charge to establish several national parks and wilderness preserves. His most renowned work, *The Passing of the Great Race: or the Racial Basis of European History* (1916), argued for the preservation of America as a sort of ‘civilization preserve’ for the *Great Nordic Race*, advocating for immigration only from Anglo-Saxon regions of Europe, and only those who could demonstrate their desirable bloodlines. See Grant’s contents pages in Figure A2-3 on next page. He insisted that “the Laws of Nature require the obliteration of the unfit,” and completely rejects the “maudlin” notion of the Melting Pot:

We Americans must realize that the altruistic ideals which have controlled our social development during the past century and the maudlin sentimentalism that has made America “an asylum for the oppressed,” are sweeping the nation toward a racial abyss. If the Melting Pot is allowed to boil without control and we continue to follow our national motto and deliberately blind ourselves to “all distinctions of race, creed or color,” the type of native American of Colonial descent will become as extinct as the Athenian of the age of Pericles, and the Viking of the days of Rollo. (p. 263)

Grant attracted the notice of Adolf Hitler while the latter was in Landsberg prison writing *Mein Kampf*. After becoming *Fuhrer*, he wrote to Grant, thanking him for his momentous work, stating that the book was “his Bible” (Black, 2003, pp. 259, 273-277).¹³⁹ At the Nuremberg Trials in 1947, *Passing of the Great Race* was introduced into evidence by Dr. Karl Brandt, Hitler's personal physician and figurehead of the Nazi euthanasia program, in order to prove that the eugenic policies of the *Third Reich* were not ideologically unique or original to Nazi Germany. The library copy of *Passing* is a 1977 reprint of the 1918 revised, amplified edition, with original and updated preface by Henry Fairfield Osborn, president of the American Museum of Natural History. Osborn gives the book his imprimatur and highest praise. Indeed, large portions of *Passing* are verbatim transcriptions of his summaries and main points from *Men of the Old Stone Age* (1915). *Passing* went through four editions and thirteen printings by 1936, and became a sort of template for German race-hygiene texts.¹⁴⁰

¹³⁸ For an expose of American scientific-racism and its profound influence on Teddy Roosevelt, his presidency, and the American eugenics movement, see Dyer, *Theodore Roosevelt and the Idea of Race* (1980). Dyer credits Osborn and Grant as seminal influences on T.R.’s developing understanding of racial anthropology, history and progress.

¹³⁹ Hitler allegedly kept a copy of Grant’s book on his bedside table for private reading and study.

¹⁴⁰ For instance, Hans F.K. Gunther’s *Rassenkunde Europas* (1926), first translated into English by G.C. Wheeler as *The Racial Elements of European History* (1927). Gunther was a much more prolific author of eugenics than Osborn and Grant combined, but credits both as major influences in this text (Engs, 2005, 103-104).

The four-page bibliography lists a few genetics texts, by W.E. Castle, C.B. Davenport, and T.H. Morgan (all eugenicists at the time), and many historical works dating back to Plato. It is also informed by Continental anthropology sources, many of them identical to Osborn's, as well as the social-Darwinism of de Gobineau, Malthus, and Spencer. Osborn's 1916 preface is a thumbnail of *Passing* and a microcosm of the progressive-era eugenics movement at its height:

European history has been written in terms of nationality and language, but never before in terms of race; yet race has played a far larger part than either language or nationality in molding the destinies of men; race implies heredity, which implies all the moral, social and intellectual characteristics and traits that are the springs of politics and government... The author, never before a historian, has turned this historical sketch into the current of a great biological movement, which may be traced back to the teachings of Galton and Weismann... This movement has compelled us to recognize the superior force and stability of heredity, as being more enduring and potent than environment. This movement is also a reaction from the teaching of Hippolyte Taine among historians and of Herbert Spencer among biologists, because it proves that environment, and in the case of man education, have an immediate, apparent and temporary influence, while heredity has a deep, subtle and permanent influence on the actions of men. (p. vii)

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Figure A2-3: Contents pages for Madison Grant's *Passing of the Great Race* (1916). Note the 'harmonious blend' of anthropological, ecological, historical, political, racial, and sociological concerns.

The anthropological and archeological histories outlined in *Passing* are essentially a summary of Osborn's *Men of the Old Stone Age* (1915), interspersed with eugenic quips and assertions. For instance in the chapter on Eolithic man, on the origins of humanity (Osborn's *Java Man*), we find excerpts like this, arguing *against* the effectiveness of natural selection in civilized societies and *for* maintaining the *status quo* of Nordic dominance in America:

The progress of civilization becomes evident only when immense periods are studied and compared, but the lesson is always the same, namely, that race is everything. Without race there can be nothing except the slave wearing his master's clothes, stealing his master's proud name, adopting his master's tongue and living in the crumbling ruins of his master's palace... Americans may well pause and consider the fate of this country which they, and they alone, founded and nourished with their blood. The immigrant ditch diggers and the railroad navies were to our fathers what their slaves were to the Roman and the same transfer of political power from master to servant is taking place today. (p. 100)

Like Osborn, Grant places a great deal of scientific emphasis on cranial capacity and shape (*brachycephalic* – broad, round skulls and *dolichocephalic* – narrow, long skulls), not unlike their predecessor Samuel G. Morton in the previous century. These measures are essentially used as genetic markers of fitness or racial quality, and unlike eye or hair colour, are seen to be more enduring and of greater diagnostic value. Indeed, racial anthropology in Nazi Germany would be hailed as a reliable manner to determine the racial purity and biological worth of people. These techniques were taught to SS medical personnel, including the notorious Dr. Josef Mengele, by renowned academics in universities and the elite Kaiser Wilhelm Institutes (Weindling, 1989).¹⁴¹

The focus, as the contents pages indicate (see Figure A2-3), is on the migrations, racial qualities and characteristics for the Neolithic, Bronze and Iron Ages of the three main races of European history: the Alpine, Mediterranean and Nordic races. Not surprisingly, the *primary* focus is on the origin, expansions and contractions of the 'great Nordic race' in Europe, and (briefly) in the Americas and elsewhere. This was to be greatly expanded and amplified in his later *Conquest of a Continent* (1933), and other lesser works in-between. Grant largely mirrors de Gobineau's (1851) theories of racial inequality and rankings, but adds his own interpretations and emphases. Grant makes finer distinctions of these groups, especially the Nordics, who are divided into more than

¹⁴¹ Nordic race-hygiene was taught to all SS recruits, even in the Waffen-SS (combat SS) who formed a formidable branch of the German Wehrmacht. Concentration-camp and SS medical officers were thoroughly indoctrinated by experts in race-hygiene and racial anthropology at Order Castles that simulated medieval Teutonic fortresses. For a shorter synopsis, see Brandon & Lower (eds.) *The Shoah in Ukraine* (2008), for a program of the training in racial anthropology/hygiene of Nazi officials. Also see Vladimir Solonari, *Purifying the Nation: Population Exchange and Ethnic Cleansing in Nazi-allied Romania* (2010), as a counterpoint to the more 'efficient' and ardent Nazi machine.

half-a-dozen sub-racial groups, with the “Scotch of Viking ancestry” ranking near the top – not surprising – given his own heritage (pp. 167-178, 179-225).

Grant details the central role of the Nordic migrations (see Figure A2-4 on next page) and their profound influences on the great Western civilizations, especially Classical Greece and early Rome. It was Nordic conquerors and migrants that put the lustre on art, culture, democracy and philosophy, as well as their conquest of the surrounding regions, populated by lesser races. It was race-mixing and gradual absorption by the lower classes – the Alpines, Mediterraneans and others – that explains the decline and fall of these great civilizations. In short, the heights of Western history are due to Nordic blood and influence, while decline, decay and decadence are explained by the corrupting influence of Slavic Alpines (such as Attila the Hun), hordes of Mongoloid invaders (Mongols, Tartars, etc.) and the stifling fecundity of Mediterraneans. One of the more humorous moments in reading the text was provided by this telling footnote:

Procopius tells a significant story which illustrates the contrast in racial character between the natives and the barbarians. He relates that at the surrender of Ravenna in 540 A.D. by the Goths to the army of the Byzantines, “when the Gothic women saw how swarthy, small men of mean aspect had conquered their tall, robust, fair-skinned barbarians they were furious and spat in their husbands’ faces and cursed them for cowards. (p. 189)

One can also clearly discern the influence of Galton’s theories of the influence of men of genius and eminence throughout history, although it lacks Galton’s and Pearson’s adherence to academic tone, statistical detail and biometric minutiae, which perhaps partly explains Grant’s greater popularity and influence not only on American eugenics (including educational texts) but also on Hitler’s radical *Weltanschauung* and German race-hygiene programs. An example of the influence of Galton’s *Hereditary Genius* (1869), can be gleaned from this passage:

This genius producing type is slow breeding and there is real danger of its loss to mankind. Some idea of the value of these small strains can be gained from the recent statistics [by David Starr Jordan] which demonstrate that Massachusetts produces more than fifty times as much genius per hundred thousand whites as does Georgia, Alabama or Mississippi, although apparently the race, religion and environment, other than climatic conditions, are much the same, except for the numbing presence in the South of a large Negro population. (p. 99)

These racial themes came to dominate the American eugenics movement in the Progressive-era, and became a fundamental part of political debates, public exhibitions and legislation, echoed by educators, scientists, and sympathetic politicians. See Figure A2-5 on the next page for one result.

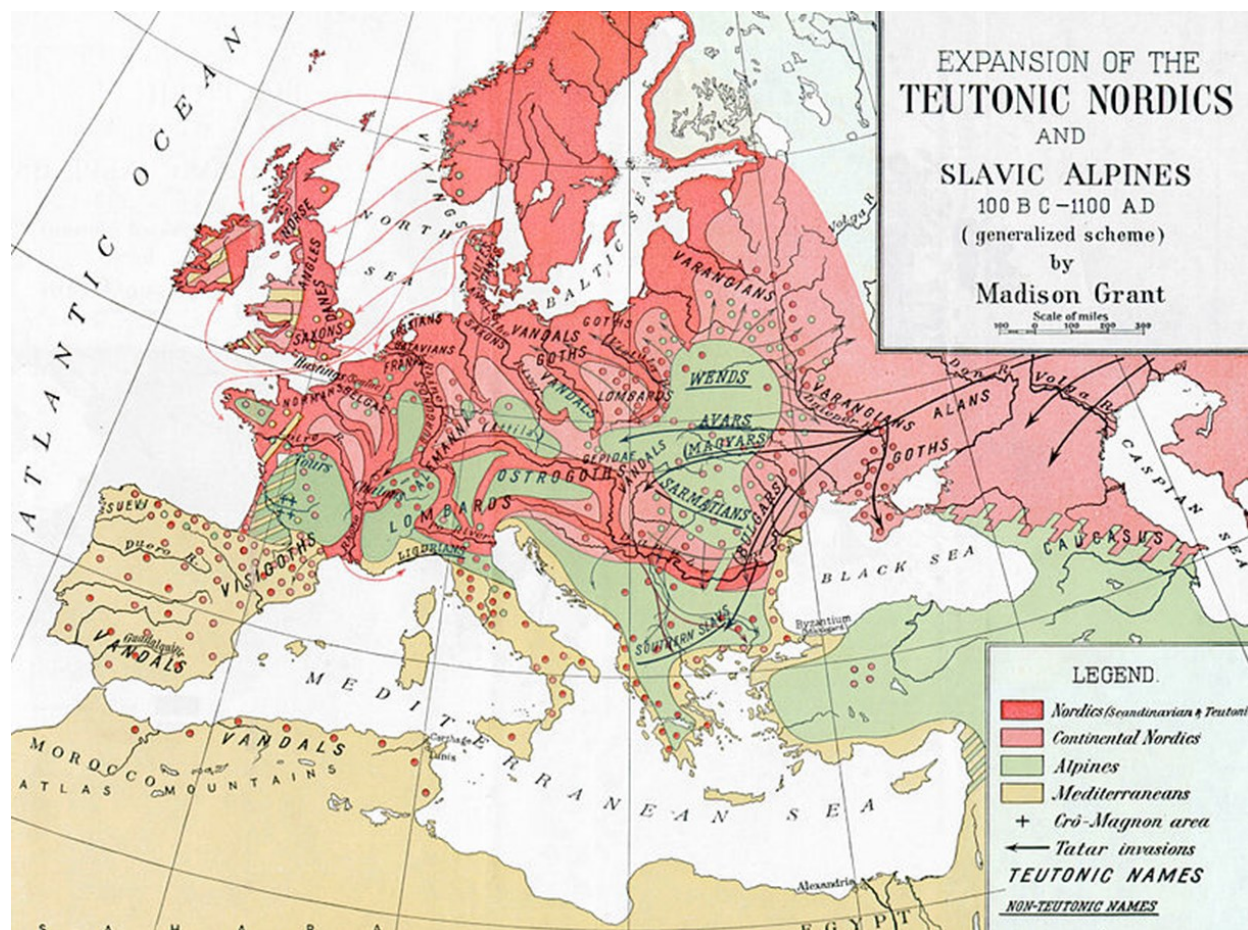


Figure A2-4: One of the elaborate colored fold-out maps showing the historical invasions of Asian races into Europe and the Middle East, in Madison Grant's *Passing of the Great Race* (1916).

Figure A2-5: A political cartoon illustrating the funneling effect of the 1921 immigration restriction quota system (see next section for details), but not alluding to the 'racial filtration.'

This precedent-setting legislation was to be amplified in the coming years, culminating with the 1924 Johnson-Reed Immigration Restriction Act. Madison Grant was chairman of the Selective Immigration Committee of the American Genetics Society (publishers of the *Journal of Heredity*) and one ancestor of the *American Eugenics Society (AES)*, incorporated in January, 1926 (Evans, 1931, p. 3).



E.A. Ross & Teddy Roosevelt - *Race Suicide* and *Immigration Restriction*

In addition to anthropologists, biologists and geneticists; social scientists significantly added to the scientific authority of eugenics. One of the most prestigious and prolific scholars was Edward Alsworth Ross (1866-1951), sociology professor and originator of the term *race-suicide*.¹⁴² Ross had already published several scholarly works by the time Galton announced the dawning of the science or secular religion of eugenics, including *Social Control* (1902), and *Foundations of Sociology* (1905). He was one of the charter members of the *Galton Society of America* (1918), the most exclusive of eugenics clubs that featured a very rigorous process for selection of members – much like the U.S. National Academy of Sciences or the British Royal Society (Engs, 2005, p. 126).¹⁴³

Ross's early work established his credentials as one of the most prominent American social scientists of his era, but it contained few overt notes of the eugenic overtones that his later works evinced. After his dismissal from Stanford in 1900, the tone and content of his works changed, becoming more characteristic of the *Nativist* faction of the eugenics movement in America. With *The Old World in the New* (1914), Ross explicitly begins to advocate for immigration restrictions against the “hordes of human refuse who swarm in upon us in this last decade or so.” See the contents pages in Figure A2-6 on the following page. These recent arrivals, unlike the Anglo-Saxon stocks of old, threatened to derail American progress and democracy, and result in ‘race-suicide’ of the *native-American* or *old-stock*.¹⁴⁴ Describing the “bulk of South-Italian immigrants to America,” Ross writes:

As grinding rusty-iron reveals the bright metal, so American competition brings to light the race-stuff in poverty-crushed immigrants. But not all this stuff is of value in a democracy like ours. Only a people endowed with a steady attention, a slow-fuse temper, and a persistent will can organize itself for success in the international rivalries to come. So far as the American people consents to incorporate with itself great numbers of wavering, impulsive, excitable persons, it must in the end resign itself to lower efficiency, to less democracy, or both. (p. 119)

Grant, Osborn and Ross joined other eugenics leaders and groups to form the *Immigration Restriction League* to lobby Congress and act as expert witnesses in committees. Their efforts were

¹⁴² E.A. Ross was also a confidant and advisor of Teddy Roosevelt. Although Ross coined ‘race-suicide’ in 1901, it was T.R. who largely popularized and politicized the term. Ross taught at Indiana, Cornell, Stanford, and Nebraska, before ending up at Madison, Wisconsin. See Dyer, *Theodore Roosevelt and the Idea of Race* (1980), 14-16, 143-168 for full exposés of Ross, race-suicide and America’s most racially-informed president.

¹⁴³ Charles Davenport, H.F. Osborn and Madison Grant were the primary founders of the Galton Society. Single men who wished to gain admission had to agree to have their fiancés vetted by the Society leadership before marriage.

¹⁴⁴ The term *native-American* or *old-stock* refers to WASP settlers who arrived during the Colonial period. For the most part, eugenicists ignored American Indians as they were already segregated on their reserves and stayed apart.

successful by 1921 when a quota system was established, limiting immigration from each nation of origin to three-percent of its representation in the U.S. population in the 1910 census.

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Figure A2-6: Contents pages from E.A. Ross's *Old World in the New* (1914). What one would now dismiss as racial stereotypes was then taken quite seriously by sociologists and ethnologists.

In 1924 the *Johnson-Reed Immigration Restriction Act* was passed (Engs, 2005, p. 126). This moved the base-year of the selective quota back to 1890, greatly favoring the earlier immigration pattern dominated by the Anglo-Saxons from north-western Europe (left side of above figure), and curtailing migration from southern and eastern Europe (right side of figure). See Figure A2-7 on following page. With the deepening of the Depression, Ross drifted away from the movement.¹⁴⁵

¹⁴⁵ Ironically, Ross was inspired by FDR's *New Deal*, and became the national chair of the ACLU from 1940-1950. This change of heart is documented in Ross's biography on the Website of the American Sociological Association. Ross was still listed on the Advisory Council of the *AES* in 1931, and a member of the Committee on Eugenics and Dysgenics of Birth Regulation (Evans, 1931, pp. viii, 10).



"HER SON"
\$4000 prize Statue by Miss Nellie Walker
Courtesy Chicago Art Institute

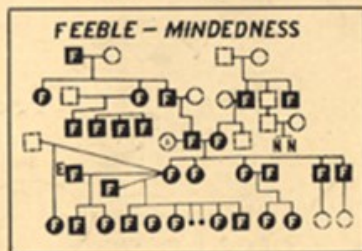
Who will be the Mothers of Coming America?

*The American Woman
is Rapidly Becoming Ugly*

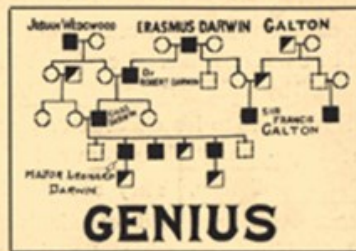
Prof. Ross has proved it. When the low immigrant is giving us *three babes* while the Daughter of the Revolution is giving us *one* it means the Gibson and Harrison Fisher Girl is vanishing. Her place is being taken by the low-browed, broad-faced, flat-chested woman of lower Europe. If this continues it means a progressive loss of racial excellence, intelligence and power.

Imbecility and Genius are both Inherited.

Only opportunity will bring out inborn genius, but imbecility **always** shows.



Pedigree collected by Dr. H. H. Goddard.
The black ones are all feeble-minded.



Means Fellow of Royal Society,
Means Eminent in Science, Pedigree collected by Mr. and
Mrs. Whetham of England.

Imbecility is increasing. Great men are decreasing

COIT BUREAU
Cleveland

MUTUAL BUREAU
Chicago

WHITE BUREAU
Boston

Figure A2-7: Advertisement by the *Human Betterment Foundation*. 'Prof. Ross' is sociologist E.A. Ross. The bottom-left pedigree chart is from Henry Goddard's *The Kallikak Family* (1912).

As the Great Depression took its toll on America, the overtly racist Nativist or Nordicist branch of American eugenics, as represented by Grant, Henry Osborn and Harry Laughlin, lost some of its influence in the movement (Engs, 2005, pp. 155-156, 162-163). Although many elder eugenicists expressed fervent support for the eugenic enthusiasm of Nazi Germany¹⁴⁶, as the storm clouds of war again formed over Europe, many of the younger leaders of the American movement distanced themselves from the Nordic supremacy thrust to focus on a more environmental and family-oriented program for eugenics.¹⁴⁷ Many of the old-guard remained true, however, even once America entered the war against Germany. A fascinating example can be seen in Professor Ivey F. Lewis's long and distinguished career at the University of Virginia from 1915 to 1953.¹⁴⁸ From this point on, however, the taint of Nazi race pogroms drove the rebranding and retooling of American eugenics in new directions, which will be explored further in the final section.

Before turning to the next section, I wish to mention a couple of other critical histories of eugenics that discuss the racist influences and societal impacts of the American eugenics movement, other than those already noted. One of the early examples (1963) is the recently (1997) reissued work *Race: The History of an Idea in America*, by the late Thomas Gossett, a professor of English at Wake Forest. His history of race in America details the formative theories and prime movers of racial thinking from even before the first American colonies were formed. His coverage of Grant, Osborn, Ross, *et al*, and the generations who came before and after them is remarkable, given his lack of any formal training in anthropology or biology. The other worthy exemplar is Wendy Kline's, *Building a Better Race: Gender, Sexuality, and Eugenics from the turn of the Century to the Baby Boom* (2001), a feminist critique of eugenic gender and education issues. Kline chronicles the propensity to segregate and/or sterilize young women who showed precocious or untoward interest in sexuality, as well as the sort of watered-down eugenics embedded in home economics and social-hygiene courses for girls and young women during the 1930s through to the early post-war years.¹⁴⁹

¹⁴⁶ See Rydell, Cogdell & Largent (2006) "The Nazi Eugenics Exhibit in the United States" in *Popular Eugenics: National Efficiency and American Mass Culture in the 1930s*, 359-384, for the engaging story of a technologically advanced and semiotically loaded exhibit of Nazi Eugenics that toured America in the 1930s.

¹⁴⁷ For example see Ellsworth Huntington, *Tomorrow's Children: The Goal of Eugenics* (1935), which is written as a 'catechism for eugenics' in the question and answer style of the popular Catholic *Baltimore Catechism*.

¹⁴⁸ Dorr (2000) "Assuring America's Place in the Sun." Lewis taught thousands of students the finer points of eugenics and Southern-style race-hygiene during his thirty-eight year tenure. He started a university chapter of the *AES*, and served as an advocate for both pieces of Virginia's 1924 eugenic legislation; one for compulsory sterilization of the feeble-minded; and the *Racial Integrity Act*, banning inter-racial marriage. See the next chapter for more details.

¹⁴⁹ See next chapter under 'Encouraging the Mothers of Tomorrow' for a more thorough presentation of eugenics education for girls and women, as well as additional sources.

Charles B. Davenport and Scientific Authority for American Eugenics

Some of the most influential leaders of American eugenics were professional biologists and science educators who lent their considerable reputations and credentials to the movement, and to related educational initiatives. American apostles of Galton's biometrics and Mendel's genetics joined with acolytes of evolutionary biology/anthropology/psychology. Collectively, they lent scientific authority to the proto-eugenical seedlings from the 'Clean-living Movement' that followed on the heels of the brutality and social-dislocation of the American Civil War (Engs, 2000, 2005). These reputedly precise and empirical sciences validated and legitimized eugenics as a rational and progressive social movement, just as Charles Darwin's scientific theories validated the pre-existing 'Social Darwinism' of Thomas Malthus and Herbert Spencer.

Capturing the imaginations of a precocious first-wave of doctoral students graduated from newly established research universities, like Clark, Harvard and Columbia, genetics and biometrics seemed to offer the same sort of mathematical certainty and predictive power to transform biological science and American society in the Progressive Era, as Newton and his 'clock-work universe' had done for physics and philosophy in European society during the Enlightenment.¹⁵⁰ For this new generation of American academics and professionals, proud descendants of Anglo-Saxon Protestant pioneer stock, the new fields of genetics and evolutionary biology/psychology seemed to offer the same sort of fertile land for professional colonization as their ancestors had found in the New World. These new sciences gave direction and legitimated the social agenda of the eugenics movement.

Kenneth Ludmerer (1972) states "that the three best known leaders of the American eugenics movement, Charles Davenport, Harry Laughlin, and Paul Popenoe, were all trained geneticists", and that "every member of the first editorial board of *Genetics* (1916)", which included Nobel laureates T.H. Morgan and Raymond Pearl, "participated in or gave support to the eugenics movement" during these early years (pp. 339-340). In analyzing the backgrounds of the 143 leading American eugenicists who contributed their names and brief quotes to the pamphlet *What I Think About Eugenics* (1919), published by a predecessor to the American Eugenics Society, Ludmerer notes "eight were trained in genetics" (p. 14). His professional breakdown yielded the following top-five: "'educator' first with 47, 'other scientists': 22, 'clergy': 19, 'professor (liberal arts)': 16, and 'physician': 10" (p. 16).

¹⁵⁰ Newton's legacy in the extended ancestry of the science of human betterment is put in context in Nisbet (1980), *History of the Idea of Progress*.

Backed by the authority and promise of these new scientific disciplines, the disciples of the eugenics movement quickly adopted the new hereditarian, social and statistical science concepts and research methods to rationalize the study of human betterment and race-hygiene. Newton's calculus and cosmology had dazzled the glitterati and educated public of his day, enabling scientific, industrial and social revolutions that fundamentally changed Europe. It was hoped that the modern sciences that girded eugenics could be similarly deployed to battle a host of social evils that were causing 'racial-degeneracy' in America. A perfect example of the professional and religious zeal of this fusion of 'cutting-edge science' with social reform of a puritanical flavour, can be gleaned from the collaboration of Charles B. Davenport and Harry H. Laughlin.¹⁵¹

Davenport became the premier American eugenicist, after establishing his credentials as a professional geneticist (Harvard Ph.D. in 1892) and a talented organizer. He was a popular instructor at Harvard, and established a summer-institute program for teaching biology teachers, at the picturesque site of Cold Spring Harbor, New York. Davenport was appointed director of the Station for Experimental Evolution at Cold Spring Harbor in 1904, funded by the Carnegie Institution of Washington (*CIW*). He also established the Eugenics Record Office (*ERO*) in the same locale (1910), which became the unofficial 'headquarters' of the American eugenics movement. The *ERO* secured generous funding from the wealthy widow of railroad tycoon E.H. Harriman, and then in 1919, from the *CIW*. In 1911, Davenport published the first edition of his *Heredity in Relation to Eugenics*, which became a staple authority for subsequent eugenics texts. See Figure A2-8 on next page for a vivid illustration of of Davenport's genetics applied to eugenics.

Harry H. Laughlin joined the *ERO* as its superintendent in 1910, serving as Davenport's right-hand until their retirement just before World War II (Witkowski, 2008, pp. 35-56). Laughlin had been a normal-school agriculture teacher and principal before pursuing graduate studies in biology at Princeton. From Cold Spring Harbor, Davenport and Laughlin directed the organization and growth of the American eugenics establishment, and travelled the globe as eugenic evangelists.¹⁵²

¹⁵¹ For a fuller ontogeny of Davenport and Laughlin's involvement in American eugenics see Cravens, *The Triumph of Evolution* (1978); and Witkowski & Inglis, *Davenport's Dream* (Cold Spring Harbor Laboratory Press, 2008).

¹⁵² Throughout his 29 year tenure at the *ERO*, Laughlin was involved in almost all the major eugenics organizations, including the *Galton Society*, *American Eugenics Society*, and J.H. Kellogg's *Race Betterment Foundation*. Laughlin was on the editorial boards of the *Eugenical News* and the journal *Eugenics*. He developed a model eugenic U.S. State sterilization law (1922) that was often copied almost verbatim, simply filling in the blanks he provided. One of these states was the new regime of Adolf Hitler, which enacted legislation in 1933 based directly on Laughlin's model. Laughlin testified before Congress as an expert for the Johnson-Reed *Immigration Restriction Act* of 1924, and at the precedent-setting case before the Supreme Court of *Buck vs. Bell* (1927) that upheld Virginia's state laws for compulsory sterilization (Engs, 2005, 140-141). For the formal evangelization of eugenics in American churches and religious groups see Rosen, *Preaching Eugenics: Religious Leaders & the American Eugenics Movement* (2004).

The *ERO* conducted pedigree studies such as “The Hill Folk: Report on a Rural Community of Defectives” (1912), and “Race Crossing in Jamaica” (1929) (Witkowski, 2008, p. 50). They oversaw experiments in plant and animal breeding, published many pamphlets, and established the *Eugenical News* in 1916, which served as the official newsletter of the *ERO* until 1939, when it was closed-down (Engs, 2005, 56).

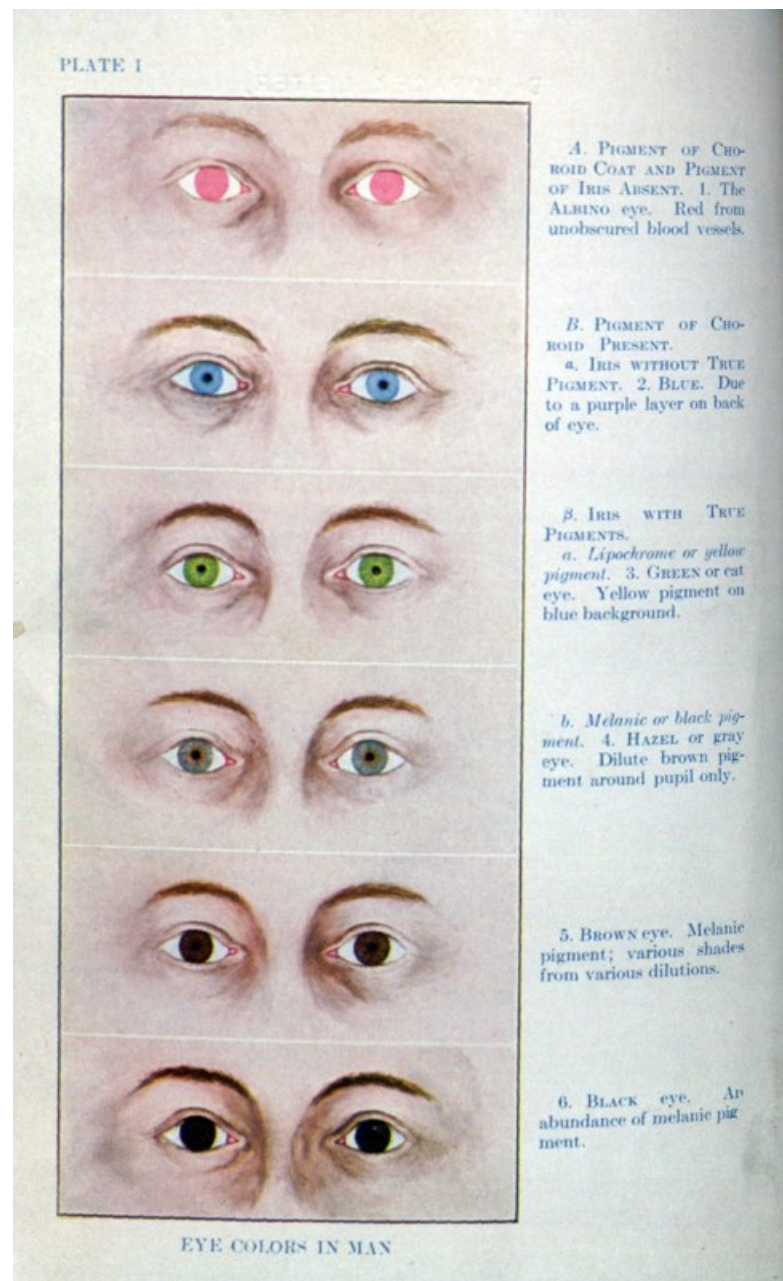


Figure A2-8: The stunning frontispiece of Davenport’s seminal *Heredity in Relation to Eugenics* (1911). Simple traits like eye or hair color were used as similes to the more problematic complex traits like feeble-mindedness or alcoholism, without explicit clarification of their complex multigenic nature.

Historian of science Daniel J. Kevles' (1995) comprehensive view of eugenics provides ample coverage of Davenport and Laughlin's eugenics empire and their political agendas at Cold Spring Harbor, as well as their eventual downfall as the U.S. State Department and Carnegie Institute's gaze fell upon them as America again prepared to take up arms against Germany. But, as mentioned in the introduction, some of the most interesting retrospectives and critiques originate from the new eugenics museum and scholarship programs of Cold Spring Harbor. The CSHL press has recently published scholarly works on the American eugenics movement and its cast of characters. One edited collection, *Davenport's Dream* (2008), focuses on Davenport's and Laughlin's activities from 1910 to 1939, when the Eugenics Records Office was closed down and they were forced to retire. The contributing authors run the gamut of modern biomedical, social sciences and historical fields, including the venerable James D. Watson. Watson ran afoul of his many critics during the time of its publication, and was forced to resign from directorship of the CSH laboratory for ill-considered eugenic and sexist public comments. The commemorative book also includes a reprint of Davenport's 1911 text in its entirety.

Another included author of this collection, Elof Axel Carlson, a trained geneticist, student and biographer of Nobel laureate and converted socialist and reform eugenicist Herman J. Muller, has also published a number of stand-alone books on the subject of eugenics and bioethics in the age of modern genetic engineering and biotechnologies. The first, *The Unfit: History of a Bad Idea* (2001) is a conventional history of negative eugenics, from Malthus to Nazi Germany and beyond. The latter work, *Times of Triumph, Times of Doubt: Science and the Battle for the Public Trust* (2006), consists of short readings in thematic sections covering such issues as the ethical foundations of pure and applied science, state sponsored racism and racial science, wartime lapses of ethics and moral behaviour by scientists, and the problems of state regulation of scientific discoveries and their human health applications. It is largely meant as a teaching resource, including discussion questions and subjects for additional student research, and would be ideal for an undergraduate Science-Technology-Society (STS) studies course. It includes comparisons of the 'banality of evil' and secular sins in the lives, philosophies and careers of Galton, Davenport and Laughlin, among others. It would doubtless make for much lively discussion and debate of the socio-scientific issues (SSIs) covered, in a way that no conventional 'positivistic' science class ever could. Cold Spring Harbor Laboratory also has an extensive history of eugenics section on their website, with numerous images, primary documents, news stories, and other eugenic detritus.

Henry Goddard: Using IQ Tests to Combat ‘Race-Suicide’ and Immigration of Subnormals

One of G. Stanley Hall’s most influential students was Henry H. Goddard, *Director of the Research Laboratory of the Training School for Feeble-minded Girls and Boys*, at Vineland, New Jersey.¹⁵³ In 1908, Goddard translated and modified Alfred Binet’s test to more reliably measure the mental age of the residents at Vineland, and later to test arriving immigrants at Ellis Island for the telltale signs of feeble-mindedness. In addition to coining the term *moron*¹⁵⁴ (Greek for foolish), Goddard also introduced the world to the ‘Kallikaks’ in 1912 – the pseudonym for a real extended family in New Jersey - with both a ‘Worthy-side’ and a ‘Degenerate-side’.¹⁵⁵ See Figure A2-9 on following page for an editorialized, semiotically-loaded pedigree. Goddard was trained in pedigree studies by Charles Davenport. Harry Laughlin supplied the trained eugenic field workers, mostly college-age women working as temporary summer employees, to conduct the extensive interviews. *The Kallikak Family* became a staple model of eugenic pedigree studies for decades. A later version was published in Germany (1934), which Germanicized both sides of the family portrait to local myths and memes (Smith, 1985, pp. 161-163).¹⁵⁶ Goddard had strong opinions on the innateness of distinct niches for humans, and preservation of the *status quo*. A glimpse of his rigid caste-like mentality is this quote from *Psychology of the Normal and Subnormal* (1919):

The people who are doing the drudgery are, as a rule, in their proper places. We must learn that there are great groups of men, laborers, who are but little above the child, who must be told what to do and shown how to do it; and who, if we would avoid disaster, must not be put into positions where they will have to act on their own initiative or their own judgment... There are only a few leaders, most must be followers... How can there be such a thing as social equality with this wide range of mental capacity? (p. 243)

Thus in Goddard’s view we have a hierarchical series of societal castes, that are both natural and essential to the harmonious human ecology of a community or a nation. He and this entire school of thought put great stock in maintaining and enforcing these arbitrary divisions.

¹⁵³ G. Stanley Hall founded the *American Journal of Psychology*, and in 1892 was appointed as the first president of the APA. Hall served as president of Clark University (Mass.) for 31 years, the oldest American all-graduate university. He was instrumental in the development of educational psychology. Hall’s *Pedagogical Seminary* became *The Pedagogical Seminary and Journal of Genetic Psychology* from 1928-1953). Hall was also co-founder of the *Journal of Race Development* (1910) dealing with colonial exploitation, especially industrial/vocational training of indigenous peoples in Africa and Asia. It was rebranded *Foreign Affairs* in 1922 (Selden, 1999, pp. 40-43).

¹⁵⁴ Goddard was especially concerned about the moron-class (high-level feeble-minded) as they did not show distinct physical traits, and could “pass for normal.” It was for ‘spotting morons’ that his new IQ test was particularly useful.

¹⁵⁵ *Kallikaks* is a composite of the Greek words for ‘beauty’ and ‘ugly or bad’. *Kallikaks* is now known to reference the *Edwards* family, as in the recently disgraced former S.C. Governor and 2004 Democratic V.P. candidate John Edwards. The *Edwards* family was often used as an ideal eugenic model, in books or articles. The *Kallos*-side family pedigree was also used as a ‘dysgenic’ staple in eugenics exhibits and texts. See Smith, *Minds Made Feeble*, 1985.

¹⁵⁶ The picture of the ‘Germanized’ *Die Familie Kallikak* (1934) is on p. 163.



Figure 13.4
The "effects" of good and bad heredity on the descendants of Martin Kallikak

Figure A2-9: A cartoonish depiction of the 'good and bad heredity' of the *Kallikak Family*. Notice the devilish and lascivious features of the 'unfit' brood, sinking downward versus the demure angelic features of the 'fit' lineage, floating towards heaven. Stephen J. Gould had the Smithsonian's photographic expert analyze a first edition of the *Kallikaks*. He determined that the mouths and eyes in the many photos of the 'degenerate side' had been altered to make them look more sinister. This graphic version of Goddard's pedigree chart of the Kallikak Family was used in various period biology textbooks, and as late as 1961 in Henry E. Garrett's *General Psychology*, published by the American Book Company, the same publisher of George W. Hunter's many civic-biology texts. After J. David Smith (1985) *Minds Made Feeble: The Myth and Legacy of the Kallikaks*, p. 171.

The idiot is not our greatest problem. He is indeed loathsome... Nevertheless, he lives his life and is done. He does not continue the race with a line of children like himself... It is the moron type that makes for us our great problem. The moron threatens racial health because he ranks highest among the undesirable and might, if not identified, be allowed to propagate and flourish. We all recognize the idiot and the imbecile and know what must be done; the scale must be broken just above the level of the moron. (p. 101)

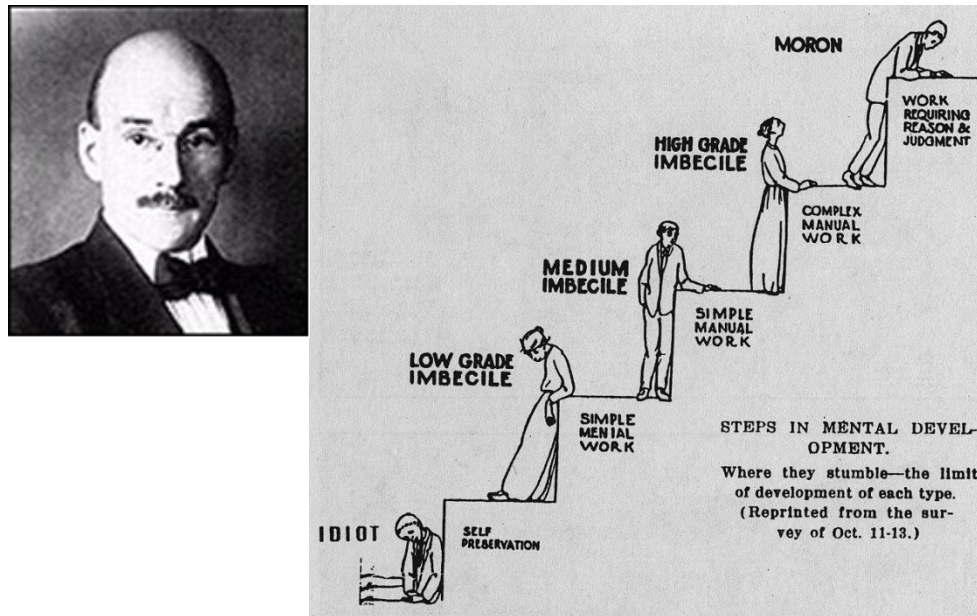


Figure A2-11: Where they Stumble. From Goddard (1919).

After standardizing his test on the small population at Vineland, Goddard took his test and eugenic field workers to Ellis Island, in New York Harbor. See Figure A2-12 below. Here his ideas became part of government immigration policy, and had profound effects on the fates of many would-be immigrants from Europe.¹⁵⁸

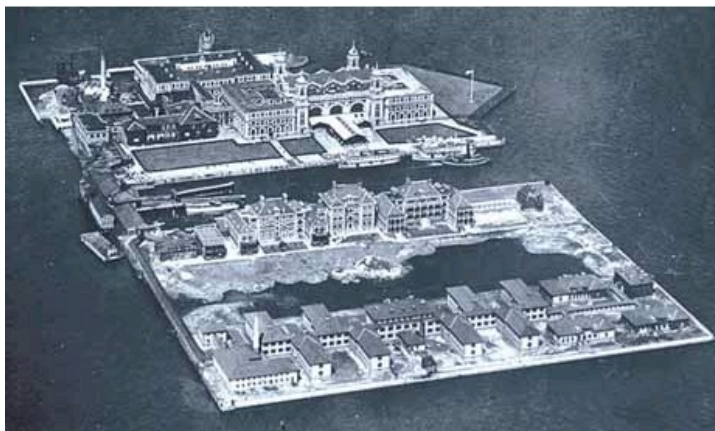


Figure A2-12: An aerial view of Ellis Island, circa 1915. This was the main entry point and processing station for ‘aliens’ (immigrants) entering America for many decades. It is now a museum and popular tourist attraction. For a fascinating tour, see *Forgotten Ellis Island* on the PBS program’s *Nova* Website.

¹⁵⁸ For a very comprehensive biography of Goddard, his work and eugenic entanglements, consult Leila Zenderland, *Measuring Minds: Henry Herbert Goddard and the Origins of Intelligence Testing* (1998).

Immigration of non-Nordics, mainly from eastern and southern Europe, was seen to threaten proper WASP society, and the continued progress and prosperity of the nation. Goddard was invited to use his test and trained eugenic field-workers to screen for the feeble-minded and mentally-defective among the hopeful immigrants at Ellis Island (Goddard, 1913, pp. 105-107). Goddard again relied on his cadre of trained eugenic field-workers, mostly female, recent college graduates, including his star-pupil, Miss Elizabeth Kite.¹⁵⁹ According to Goddard (1913), women had superior intuition in spotting the tell-tale signs of feeble-mindedness and racial degeneracy:

After a person has had considerable experience in this work, he gets a sense of what a feeble-minded person is so that he can tell one afar off. The people who are best at this work, and who I believe should do this work, are women. Women seem to have closer observation than men. It was quite impossible for others to see how these two young women could pick out the feeble-minded without the aid of a Binet test at all. (p. 106)

The results of his study were ‘shocking’, and were later instrumental in having greater restrictions placed on non-Anglo-Saxon immigrants, in the form of the Johnson-Reed Immigration Restriction Act of 1924, for which various pedigree charts from Goddard’s *Kallikak* study and his Ellis Island data were used on Capitol Hill as scientific evidence of the menace of the feeble-minded.¹⁶⁰ Goddard also created an extensive set of standardized facial recognition-cards, with model subjects that displayed the underlying dysgenic traits that were being screened against. See Figure X in chapter X for samples and further details. These picture-cards were used as an initial screening device. These defectives could then be pulled aside, and Goddard’s I.Q. Test could be administered as the scientific arbiter of their eugenic fitness, and thus alert immigration officials to those undesirable aliens who should be denied entry. As Gould chronicles in his *The Mismeasure of Man* (1981), most of these non-Nordic immigrants had been traumatized by their arduous journey across the Atlantic in 3rd-class or steerage. They had been cooped-up for weeks in the foul confines of the bowels of steamships, many were sick; and many had never even held a pencil before, let alone filled-out timed mental-tests in noisy, crowded waiting-rooms, administered by unfamiliar officials in uniforms. Many hopeful immigrants failed the tests miserably and faced deportation back to their country of origin.

¹⁵⁹ See Smith (1985) for a narrative of Miss Kite’s role in, and profound influence on Goddard’s work.

¹⁶⁰ Harry Laughlin, superintendent of the *ERO*, testified as an expert witness to Congress on the menace to America of rampant immigration of the unfit and racial undesirables, as did Madison Grant. Laughlin’s graphic presentations circled the rotunda of the Capitol Building and greatly aided in passage of restrictive laws (Smith, 1985, 137-138).

The U.S. Army Mental Tests of WW I

America's late participation in World War I (The U.S. did not declare war until April, 1917), gave the proponents of mental testing their greatest opportunity. Robert M. Yerkes, a professor of psychology at Harvard University since 1902, was commissioned as a Colonel, and appointed to head the Army Mental Testing Program, given to some 1.75 million recruits during general mobilization of the largest American draft to date. Yerkes and other members of the *Committee on the Psychological Examination of Recruits* (see Figure 14 on next page) used the opportunity to put psychology and mental testing in particular, on a firm empirical and theoretical footing, and thus to elevate their discipline to an accepted science (Gould, 1996, pp. 222-225).¹⁶¹ As Gould notes, the Army was largely indifferent to the program. Their lackadaisical handling of the testing regime belied the intrinsic value to the professional military at that time. Rather, the importance of the tests lay in their popular and political propaganda value, and their empirical significance as “a philosopher's stone of psychology: the copious, useful, and uniform body of numbers that would fuel a transition from dubious art to respected science” (Robert Yerkes, *Psychological Examining in the United States Army* (1921), quoted in Gould, 1996, p. 224).

Yerkes and his committee met at Goddard's Vineland School, from May-July 1917, to develop the first group intelligence tests. They developed two main instruments: the text-based *Alpha* Test for English literates, and the pictorial-based *Beta* Test, for illiterates and recent non-English speaking immigrants. After piloting and standardizing the tests, they were administered to some 1.75 million recruits, often in completely unsuitable conditions that today would invalidate the data (Kevles, 1968, pp. 565-581). After the armistice, a flurry of effort ensued to collate, analyze, and draw conclusions from the voluminous data. The resulting academic, political, and popular publications dramatically boosted the careers of the principals of the study, including Brigham, Goddard, Terman, Yerkes, and their assistants, technicians, and graduate students, many of whom had also volunteered for this military-scientific service during the war. One of the most accessible sources is Carl C. Brigham's *A Study of American Intelligence* (1923), which includes a forward by Colonel Yerkes. See Figure A2-13 for an image of the table of contents of this bombshell work. Brigham, a former student of Davenport at Harvard, went on to become the creator of the S.A.T.¹⁶²

¹⁶¹ Ironically Gould's chair at Harvard is still named after Louis Agassiz, a prominent 19th Century 'scientific racism' theorist and associate of S.G. Morton, both of whom are profiled and critiqued by Gould in his *Mismeasure of Man*.

¹⁶² The *Scholastic Aptitude Test* has become an industry unto itself, as well as a legendary icon of pop culture, featuring prominently in many young-adult oriented Sit-Coms, in college movies, etc.



Figure A2-13: Members of the *Committee on the Psychological Examination of Recruits* for the U.S. Army in World War I, taken in May, 1917 on the front steps of the *Training School for Feeble-minded Boys and Girls*, at Vineland, New Jersey. Most were prominent leaders in the *American Eugenics Society* (AES), the *Galton Society*, the *Immigration Restriction League* and/or the *American Psychological Association* (APA).

Back Row: Harry H. Laughlin (Superintendent of the *Eugenics Record Office*), G. Stanley Hall, Robert M. Yerkes, Carl C. Brigham, and Lewis M. Terman
 Front: Edgar A. Doll (Goddard's later successor at Vineland), Henry H. Goddard, Edward L. Thorndike.

The Army *Alpha* and *Beta* testing program was a pivotal moment in the history of psychology. The tests provided psychometricians with the first widespread group intelligence tests. Second, the publicity generated popularized intelligence testing in the public and private sectors. Third, the program provided vast amounts of data to serve as fuel for political controversies over 'shocking' racial differences in intelligence test scores and an asserted decline of America's "national intelligence". Some 1.75 million recruits, NCOs, and officers were tested, and the compiled data was the basis for C.C. Brigham's book, *A Study of American Intelligence* (1923).

Another modern reappraisal of the Army Mental Tests, in addition to Gould's *Mismeasure of Man*, can be found in "Psychological Work and the Nation: The Political Meaning of Intelligence" by Leila Zenderland, in Chapter 8 of *Measuring Minds* (1998). This work is a very comprehensive biography of Henry Goddard, and the origins of American intelligence testing. Her background in American cultural history and sociology of science makes a good counterpoint to Gould's expertise in natural history and paleontology.

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Figure A2-14: Contents page of Carl Brigham's *A Study of American Intelligence* (1923). It is a truly fascinating read, especially Section 10, which brings in noted experts of eugenics, including Francis Galton, Henry Goddard, Madison Grant, and E.A. Ross. Students of psychometrics should compare the justification of the reliability of the test results by Brigham, *et al*, with modern critiques by Kevles (1968) and Gould (1996).

These new scientific methods justified the political ambitions and legitimated the social agendas of the eugenics movement; such as immigration restriction and eugenic segregation or sterilization. Another sweeping success of the new I.Q. Tests was in establishing and embedding these new quantitative applied social sciences into the structure of the modern research university, as foreseen by Yerkes. Colonel R.M. Yerkes, two-time president of the American Psychological Association, distinguished Harvard professor, and director of the Army program, also advocated for their use throughout the American education system, along with his old colleagues Lewis Terman and Edward L. Thorndike (of *Columbia Teacher's College* fame), beginning in the inter-war period. See Figure A2-15 below. The tests were also recommended as a filter for immigration, especially the Army *Beta Test* for non-English immigrants, by the American Eugenic Society's (*AES*) *Committee on Selective Immigration*, chaired by Madison Grant. Yerkes felt using these 'scientific' mental measurements would benefit the eugenics cause in three important ways:

First, the use of these tests would aid them in arguing for the hereditary nature of intelligence, a key assumption of the movement. Second, the very act of administering the examinations would legitimate the tests. And third, it would give professional status to those who administered them. (Yerkes, 1921, quoted in Selden, 1999, p. 29)

Prepared under the auspices of the National Research Council

NATIONAL INTELLIGENCE TESTS

By M. E. HAGGERTY, L. M. TERMAN, E. L. THORNDIKE
G. M. WHIPPLE, and R. M. YERKES

THESE tests are the direct result of the application of the army testing methods to school needs. They were devised in order to supply group tests for the examination of school children that would embody the greater benefits derived from the Binet and similar tests.

The effectiveness of the army intelligence tests in problems of classification and diagnosis is a measure of the success that may be expected to attend the use of the National Intelligence Tests, which have been greatly improved in the light of army experiences.

Figure A2-15: Part of an advertisement for the national IQ tests, modified for school needs from the U.S. Army mental testing program of WW I. (After Gould, 1996, p. 208)

Today, with the aid of powerful new technologies, new tests and other diagnostic tools, the capabilities of social scientists and biometricians have been multiplied manifold. See Figure A2-16 below. As predicted by Yerkes, their legitimacy and professional status is seldom questioned, and often lauded by the technocrats who administer our modern society.¹⁶³ Goddard, in *Psychology of the Normal and Subnormal* (1919) posited his conception of democracy as a means to achieve a sort of meritocratic aristocracy, cogently critiqued by the late Neil Postman in *Technopoly* (1992). Postman laments the dysfunctional rise of a powerful technocracy, its bureaucratic apparatus and the invisible technological control mechanisms that operate in modern industrial society:

Democracy, means that the people rule by selecting the wisest, most intelligent, and most human to tell them what to do to be happy. Thus democracy is a method for arriving at a truly benevolent aristocracy. (Goddard, 1919, p. 237)

These scientific indicators today have an authority that is highly resistant to repudiation, based on the utility of science and technology in creating intelligible order out of the chaos of the turbulent political, economic, and cultural milieus in the age of Globalization and *Technopoly*. That these semiotic indices have political and cultural biases embedded in their very structures, is seldom elucidated, and only actively opposed by outsiders to the prevailing system.¹⁶⁴

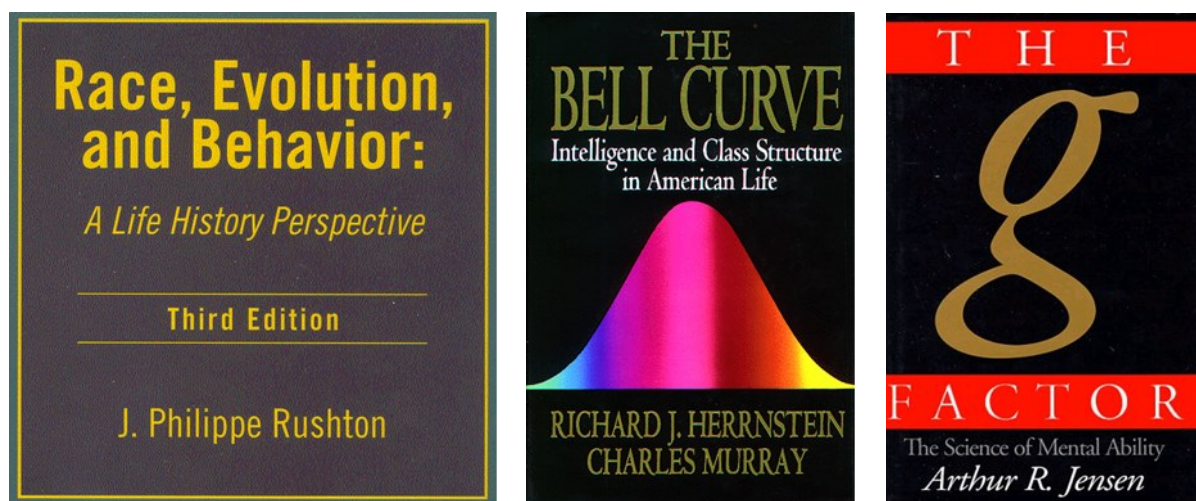


Figure A2-16: A small sampling of major works published by Henry Goddard's intellectual heirs.

¹⁶³ It is noteworthy that the Army *Alpha* and *Beta* Tests were the direct progenitors of the Army Mental Aptitude Tests employed in the massive longitudinal study that the authors of *The Bell Curve* (1994) used to argue for the emergence of a cognitive elite that dominates modern America. Goddard would be pleased that his democratic ideal was realized.

¹⁶⁴ See Miele, *Intelligence, Race and Genetics: Conversations with Arthur R. Jensen* (2002), for an extended dialogue with Arthur Jensen, regarding *Jensenism* and his claim of widespread acceptance of his methods, theories, and conclusions for a racial basis to IQ by the majority of experts in the field of psychometrics. Jensen also vigorously defends the Pioneer Fund's core mission: studying the racial basis and differences in intelligence and mental aptitude.

Rebranding, Latter-Day Eugenic Revivals and Futuristic Post/Trans-Human Directions

The horror of Nazi race-hygiene programs and the Holocaust served as a brake on eugenics in most democratic countries. However, by no means was that the end of all entrenched programs, or support from experts and scientists, despite some official histories that assert this as the end of the era. It may have marked the beginning of the end for *widespread* support by professionals and academics for hardline eugenics programs. There were, however, still established programs that continued such practices as forced sterilization of the ‘feebleminded’ for over three decades: 1971 in Alberta, Virginia in 1972, California in 1979, Oregon in 1981 (Engs, 2005, p. 205).

One of the post-Nuremberg Trial reactions of American eugenics, and its British equivalents, was to rebrand itself, and incorporate elements of an environmental program (*euthenics*) into the movement. This had already begun as the Great Depression wore on, but was accelerated during and after World War II. This can be seen in the efforts and works of two later American eugenic leaders, such as Yale’s Ellsworth Huntington¹⁶⁵ and Frederick Henry Osborn.¹⁶⁶ Both could best be described as pioneers of human geography, demographics and social biology. Both were prolific authors and influential leaders. Frederick Henry Osborn succeeded his uncle Henry as president of the American Museum of Natural History, was commissioned as a General in the U.S. Army to head the Morals Branch in WW II, and later served as an American delegate to the *United Nations Atomic Energy Commission*. Frederick was later appointed as the first president of the *Population Council* in 1954 by John Rockefeller III, serving until 1959. Osborn predicted that in the future, “Eugenic goals are most likely to be attained under another name than eugenics” (Osborn, *The Future of Human Heredity*, 1968, 104). Sir Frederick was correct, but he also underestimated the staying-power of hardline eugenics. Osborn wrote a nostalgic history of the *American Eugenic Society* in its rebranded journal, *Social Biology*, in 1974 (Engs, 2005, pp. 168-169).

This trend of relabeling organizations and retooling the agenda continued after World War II. Paul Popenoe’s *Human Betterment Foundation* – a pioneer eugenic sterilization organization – was rolled into *Planned Parenthood* after WWII, and he became a marriage counselor and a pioneer of the clinical science of genetic counseling.¹⁶⁷

¹⁶⁵ President of the *American Eugenics Society* during the 1930s through WWII (See Huntington, 1920, 1935, 1945).

¹⁶⁶ Henry F. Osborn’s nephew, he was *AES* president in the early post-war years (see F.H. Osborn, 1934, 1968, 1974).

¹⁶⁷ Paul Popenoe (1888-1979) co-author of *Applied Eugenics* (1918) the most-used eugenics textbook, was a prolific author & editor of the *Journal of Heredity* until WW I. He then served on the Surgeon General’s staff as director of Venereal Diseases Control section (Engs, 2005, pp. 54-57). Popenoe became executive director of the *American Social Hygiene Association*, and later the *Human Betterment Foundation*. His best-selling book, *Modern Marriage* (1925), was in print for decades. After WWII, he again served as an editor for the *Journal of Heredity* (Engs, 2005).

The *American Eugenics Society* became the *Society for the Study of Social Biology* in 1973, and its journal *Eugenics Quarterly* became *Social Biology* in 1969 (Engs, 2005, p. 7-8). See Figure A2-17 below. It is still published as *Biodemography and Social Biology*. In London, the *Galton Chair of Eugenics*, once occupied by Karl Pearson, became the *Galton Chair of Human Genetics* in 1954, and its publications were similarly renamed.¹⁶⁸ The venerable old *British Eugenics Education Society* became the *Galton Institute*, and its journal *The Eugenics Review* became the *Journal of Biosocial Science* in 1968 (Engs, 2005, pp. 84-85).

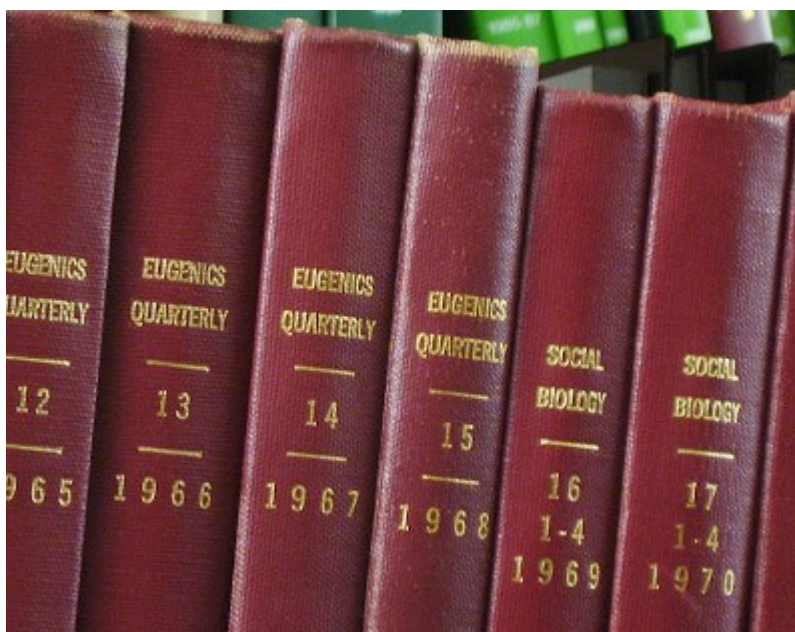


Figure A2-17: Can a eugenic rose with historical thorns, smell sweeter under a new name?

However, some academics, even prominent respected scientists, remained ardent supporters of hardline eugenics, even when the tide had turned against them. One of the most interesting and bizarre cases is that of American physicist and Nobel laureate (1962) William Shockley. Best known for his contribution to the development of the first transistor in 1947, he was later an engineering chair at Stanford University when he embarked on a late crusade for hardline eugenics. Shockley addressed a Nobel Conference in 1965 with a presentation on “Genetics and the Future of Man” (Tucker, *The Science and Politics of Racial Research*, 1994, pp. 183-184).

¹⁶⁸ See Diane B. Paul, *The Politics of Heredity* (1995) and *Controlling Heredity* (1998) for modern legacies of the progressive-era eugenics movement including modern human genetics, genetic counseling, and biomedicine.

After acknowledging his lack of formal training in the area, Shockley expressed his “long-held” concerns with both the quantity and quality of human beings in the modern world:

One of the greatest threats to the future was the ‘genetic deterioration’ of the human race...that improvements in medical technology, together with the abundance in American society were assuring to all the privilege of reproducing their kind, even those suffering from genetic defects that would not have allowed them to survive to the age of reproduction in a more primitive environment (Tucker, 1994, p. 184).

U.S. News and World Report interviewed Shockley, and published a lengthy feature article. It included themes echoing *Nativist* eugenics, such as fears of the “increasing reproduction of the inferior strains... especially in Blacks, the genetically least capable were producing the largest number of offspring” (Tucker, 1994, p. 185). A strong reaction from Shockley’s Stanford colleagues in the genetics department was spurred when the article was reprinted in the *Stanford M.D.*, the medical school’s alumni magazine. An open letter by all seven of the genetics department faculty, including Joshua Lederberg, also a Nobel laureate, repudiated Shockley’s statements as:

the kind of pseudo-scientific justification for class and race prejudice [that] that we would not ordinarily have cared to react to. However, Professor Shockley's standing as a Nobel laureate and as a colleague at Stanford, and now the appearance of his article with a label of Stanford medicine, creates a situation where our silence could leave the false impression that we share or acquiesce in this outlook, which we certainly do not ... [we] deplore the tone of his entire discussion about ‘bad heredity’. (Tucker, 1994, p. 185)

Shockley’s critics mockingly asked why he had not used Goddard’s old *Kallikak* study as part of his scientific documentation. Shockley did not disappoint, and later did just that. Shockley also appealed to the National Academy of Sciences (he was then a vice-president), making annual urgent “pleas for the study of racial aspects of the heredity-poverty-crime nexus” (Tucker, 1994, p. 186). He proposed a system of tax credits for ‘eugenic desirables’, similar to previous incarnations of eugenicists going back to Galton. With a more futuristic flair, Shockley also politically and ‘personally’ supported a super-genius sperm-bank, the so-called Genetic Repository of Genius, to make available to prospective progress-minded mothers, the procreative DNA of living Nobel laureates and eminent scientists (Kevles, 1995, pp. 262-263). On the negative side of Galton’s *Bell Curve*, Shockley also proposed cash incentives for young Americans with an I.Q. under 100, (to the tune of \$1000 per I.Q. point below) to be voluntarily sterilized, and payments to genetic bounty hunters who could deliver deserving candidates to undergo the procedure (Tucker, 2002).

Shockley also attacked his critics as being “undemocratic” and “totalitarian” in nature, and even proffered that “the lesson to be learned from Nazi history, was the value of free speech, not that eugenics is intolerable” (Tucker, 1994, p. 186). Shockley received generous funding from *The Pioneer Fund*, established in 1937. Founded by Texas textile-tycoon, philanthropist and ardent eugenics supporter Wickliffe Preston Draper, along with eugenicists Harry Laughlin and Frederick H. Osborn. Its main objective is to “provide grants for research into the study of human nature, heredity and eugenics” (Engs, 2005, p. 179). It largely replaced previous financial support from the Rockefeller Foundation and the Carnegie Institute of Washington. Shockley was also a popular speaker for white-supremacist groups, segregationists, or other reactionary groups and was even praised by right-wing mass media, including the *Wall Street Journal* (Tucker, 1994, pp. 193-195).

If this attempted old-time eugenic revival was limited to one embittered scientist, the nails could perhaps be driven into the coffin of hardline eugenics. The list goes on, however, notably with Arthur R. Jensen (Berkeley psychologist), his colleagues Hans Eysenck, R.B. Cattell (another second generation eugenicist), and the *International Association for the Advancement of Ethnology and Eugenics*; with continued financial support from the Pioneer Fund. The eugenics movement continues to this day, with such notables as *The Bell Curve* (1994) by Richard Herrnstein and Charles M. Murray; whose best-seller status prompted Stephen Jay Gould to expand and update his classic *Mismeasure of Man* in 1996. The list also includes the notorious J. Phillippe Rushton (See Figure A2-15), professor of psychology at the University of Western Ontario, who until his death in October 2012, was the most recent chairman of the Pioneer Fund.¹⁶⁹ While mainstream academia and the ‘liberal’ press may view them as embarrassing anachronisms, they continue to publish and attract a great deal of publicity and support from certain right-wing elements of society.

With the re-emergence of various forms of neo-Nazis, the Klan, and other white-supremacist groups, the end of racial eugenics is nowhere in sight. Under pseudonyms eugenics is still a key component in the export of Western science and technologies to the developing world (from abortion, birth-control and sterilization; to theories, models and statistical techniques dating back to Galton and Pearson (Tucker, 2002, pp. 285-291). This is not even to mention the neo-eugenic elements of biotechnology that are embedded in ventures like the Human Genome Project, and similar ‘Big-Science’ initiatives, corporate spin-offs, and societal memes.

¹⁶⁹ The newest chair of the Pioneer Fund is R. Travis Osborne (born October 20, 1913), a professor emeritus of psychology and specialist in psychometrics and twin-studies, at the University of Georgia.

And then there is the World-Wide-Web. A quick search of ‘modern eugenics’ or ‘future eugenics’ exposes a truly mind-boggling plethora of sites, articles, books, images and organizations. By yet another semiotic gauge, the future health of eugenics, by whatever name, is rosy, simply extrapolating from the ubiquitous prevalence of eugenic memes and themes in many science-fiction storylines; from the original *Star Trek* series, through all its sequels, to *Star Wars*, *Dr. Who* and many other popular franchises.¹⁷⁰ See Figure A2-18 and footnote 50 below. Eugenics in its myriad forms may just survive as a popular meme longer than any current human race, or its sequels. Whether or not Francis Galton or his progressive-era apostles would approve, the new forms and dissemination technologies of today’s mass-media have publicized eugenic memes more effectively and prodigiously than Galton and all his legacy societies could have even dreamt.



Figure A2-18: Ricardo Montalban as ‘Khan’ in the original *Star Trek* series (1967), and then in the 1982 feature-film, *The Wrath of Khan*. Note both are signed; very valuable eugenic relics.

¹⁷⁰ My first exposure to the meme of eugenics was compliments of the original *Star Trek* series. In the episode *Space Seed*, a younger Ricardo Montalban starred as *Khan*, the leader of a band of genetically-enhanced supermen, rescued from a century-old derelict spaceship (the *Botany Bay*) by the *Enterprise* crew. In short-order, Khan and his supermen attempted to commandeer the ship for their own sinister purposes, betraying their contempt for mere ordinary humans. Captain Kirk and the crew saved the day and dropped-off the mutineers on the nearest habitable planet. Twenty years later the embittered survivors of this group of eugenic *übermenshen* again played the antagonists for Admiral Kirk and the *Enterprise* in *Star Trek: The Wrath of Khan*, featuring an older, more bitter, but remarkably fit Ricardo Montalban. The subject of future eugenics programs and trans/post-humans became recurring motifs in later *Star Trek* franchises. Other long-running Sci-Fi franchises have continued to flog the eugenics theme. Although they have been explicitly intended as cautionary tales (almost always), each new version has excited new legions of fans to the possibilities of eugenic and trans-human biotechnology, with actress Jerri Ryan’s ‘Borg-Babe’ *Seven-of-Nine* as the quintessential example, inspiring more rabid fan-worship than almost any character in sci-fi. More recent movies, like *GATTACA* (1997), have explored these memes without any explicit mention of past eugenics programs. That is disturbing to me.

Part B: A Brief Historiography of Eugenics Education (1909-1948)

Introduction

“If”...wrote John Franklin Bobbitt in his short article, “Practical Eugenics” of 1909, in the hallowed pages of *The Pedagogical Seminary*¹, “only children of sound, sane parentage should be born, then our most difficult problems of child-training would be solved, most of the evils that pursue humanity would be banished, and the race raised to higher altitudes in its journey toward the kingdom of the Over-man” (Bobbitt, 1909, p. 385).¹⁷¹

The American Eugenics movement has been dismissed by apologists as a short-lived, racist, reactionary, and pseudo-scientific aberration that was already sputtering for breath long before the collapse of the Third Reich. Indeed, many official histories of biology, various social-science disciplines, and education have been sanitized to expunge or at least trivialize the involvement of a host of important prophets, disciples, and dupes in the eugenics movement. It is also common to divorce the research and statistical methods developed in the service of eugenics from their inspiration and original application to Galton’s secular religion of human betterment. See Figure A2-19 on the following page for a stylized general example of this methodological application, and Figure A2-20 for a specific example of the human consequences of this eugenical research regime. It is only in the last few decades that a new generation of scholars has begun to fully examine and illuminate the breadth and depth of the eugenics movement, its devotees, their actions and influence within their professions or academic disciplines, and in society at large. This includes new research into the penetration of eugenics into educational thought, curriculum, courses and texts.

¹⁷¹ *The Pedagogical Seminary*, (which became *The Pedagogical Seminary and Journal of Genetic Psychology* from 1928-1953) was edited for many years by G. Stanley Hall, then President of Clark University, and Professor of Psychology and Education. He was also the first president of the APA, and one of the few who have had multiple terms as its head (three in Hall’s case). Hall is probably best known for being the founder of ‘Child Study’, then a new strand of curriculum studies. Several of his students, in addition to Bobbitt, became centrally involved in the Eugenics movement (Selden, 1999, pp. 42-43).



Figure A2-19: A cartoon illustrating the ‘new method’ of separating the eugenic wheat from the dysgenic chaff by the scientist/education practitioner of the progressive-era. Several of the authors of the ‘*grammar of science*’ textbooks on Ms. Education’s desk will be examined in this chapter, profiling the historiography of eugenics education.



Figure A2-20: A photo of ‘Deborah Kallikak’ as a young woman, with ‘Henry the Cat’ – named after her famous minder, Henry Goddard. Deborah was the poster-child of eugenic segregation and a staple character in eugenics education lore and civic-biology texts. From the age of eight, she lived at the *Vineland Training School for Feeble-minded Boys and Girls* in New Jersey, until her death at age 89. See Smith (1985), *Minds Made Feeble* for the tragic tale of her institutional life.

This recent scholarship has opened many hidden doors, to reveal a panoply of overlapping interests, academic programs, organizations and influential individuals that fatefully intersected and synergistically recombined to create a powerful social movement that persisted throughout the first half of the twentieth-century, and whose legacy continues to this day. For many people in the fields of education, the biological, medical and social sciences, even a casual knowledge of the eugenics movement - its scientific underpinnings and the socio-political consequences - conjures many dark images. State-sanctioned racism, forced segregation, coerced and compulsory sterilization, and ultimately the horrors of the Nazi-prescribed extermination of the physically disabled, mentally ill, and a host of social lepers, whose brutally efficient elimination was also a dress-rehearsal for the larger Holocaust that followed.

Eugenics continues to have important consequences for today's generation. The New Millennium has its own analogous biological and/or medical research programs, social policy and new legislation, and ongoing educational impacts arising from the current incarnations of genetic, biometric and psychometric sciences and their related technologies. These current programs and agendas need to be informed by a clearer history of this previous incarnation of reliance on incomplete sciences and their applied technologies, before their potential future use for the elimination of perceived societal ills, the continued oppression of the usual suspects, and the inheritance of the status quo by the next generation of the "Over-man."¹⁷² One need only look to Herrnstein and Murray's *The Bell Curve* (1994), and the public and professional furor it renewed, to realize the persistence of eugenics in the *Zeitgeist* of today, and the futuristic visions of science fiction. Even without explicit attention to the festering sores of race, class, and gender discrimination; the biometric, psychometric, statistical, pedagogical and curricular detritus of eugenics remains, out-of-plain-sight, but *not* out-of-mind for those willing to dig in the dirt.

This appendix examines the inculcation and enculturation of eugenics in the curriculum and classrooms of American schools and colleges and in polite popular culture, starting in the so-called *Progressive Era*¹⁷³, encompassing the period from 1908 to the aftermath of World War II, particularly the Nuremburg Trials in the shattered remnants of Nazi Germany. This chapter is *not* intended to be a detailed examination of the history and continued usage of intelligence tests in education, or the

¹⁷² Refers back to the opening quote by J.F. Bobbitt (1909, p. 385) at the beginning of this section (Part B).

¹⁷³ The *Progressive-era* has not been definitively limited, but sometimes postulated as 1890-1920. I would argue that for the American eugenics movement its start may be postponed to 1908 when the movement was first organized as the *Eugenics Section of the American Breeders Association*, and extended in time to Black Friday, the fateful stock-market crash that catalyzed the Great Depression. Its progressive momentum carried it into the 1930s and beyond.

ongoing debate of IQ vs. Race that was re-stirred to a boil by *The Bell Curve*, or by the many works of Arthur R. Jensen, beginning with his very controversial 1969 article in the *Harvard Educational Review*. The interested reader is directed to two subsequent edited collections: *The Bell Curve Wars* (Fraser ed., 1995), and *Intelligence, Genes, and Success: Scientists Respond to The Bell Curve*. (Devlin, *et al*, eds., 1997), or to Stephen Jay Gould's revised and expanded *The Mismeasure of Man* (1996). In addition, Clyde Chitty's *Eugenics, Race and Intelligence in Education* (2007), covers the British experience of eugenics and IQ testing in education from Galton and Pearson to the present.

This chapter is intended as a brief primer of the prime movers, the quintessential themes, and the cultural penetration of eugenics education in influential public forums, as well as the formal inclusion of eugenics in school and college curricula, from the time American eugenics education was first organized under the banner of the American Breeders Association, through to the end of World War II, after which mainstream American eugenics was gradually suppressed and driven underground, or at least rebranded with fresh euphemisms. It also includes a short introduction to some of the eugenics textbooks employed and the major themes explored, and concludes with a brief description of a modern exemplar of education *about* eugenics, rather than *for* eugenics.

In the first decades of the American Century, eugenicists knew they needed to recruit a coterie of medical professionals, business, educational, and social leaders, as well as the politicians and philanthropists who held the purse strings. And, they needed to 'educate' the public and the progressive generations who would populate their brave new world. To this end, the American Eugenics Society (AES) formed over a dozen subcommittees, some specializing in tackling the social problems most pressing to the leadership, such as immigration restriction or crime and delinquency; others tasked with evangelizing eugenics among different sectors of society. See Figure A2-21 below for a partial list of these committees. Among these was the Popular Education Committee, tasked with education of the public; and the Formal Education Committee, charged with the "incorporation of eugenics as an integral part of various appropriate courses throughout the school system, in the elementary grades through high school, as well as the encouragement of special courses in colleges and universities" (Evans, 1931, p. x).

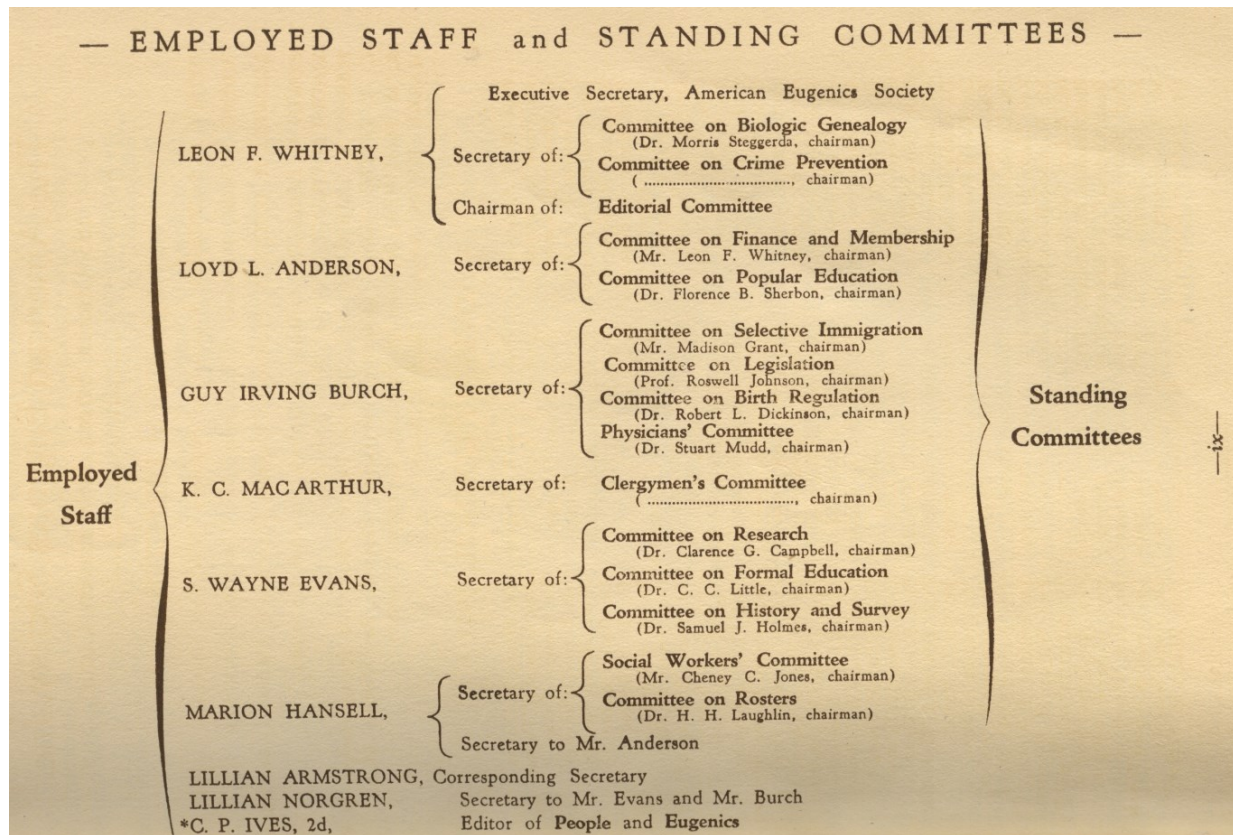


Figure A2-21: A chart of the standing committees for the *AES*, with their Society chairs and hired staff assignments for each (Evans, 1931, p. ix).

Education was always somewhat problematic for eugenicists, particularly those of the hard-hereditarian school of thought. From the early writings of Galton, through the Great Depression, the value of education in determining success in life was always minimized in relation to hereditary endowment. Many, such as Galton's faithful paladin Karl Pearson, denied the possibility of education or social reforms over-riding the effects of bad heredity. For Pearson, writing in *The Grammar of Science* (1900, pp. 26-27), "No degenerate and feeble stock will ever be converted into healthy and sound stock by the accumulated effects of education, good laws, and sanitary surroundings."¹⁷⁴ See Figure A2-22 on the next page for a more extended excerpt of this grammar of science.

For Paul Popenoe and Roswell Johnson, writing in the 1933 edition of *Applied Eugenics*, "not more than 5% of the differences in intelligence of children (as measured by the Intelligence Quotient) are due to differences in their schooling" (p. 3).¹⁷⁵ On the other hand, these authors attribute "75 to

¹⁷⁴ This text went through numerous editions from 1892 to as late as 1957. See Figure 25 on next page for a more extended explication of the implications of the *Hereditary Genius* of Weismann and Francis Galton.

¹⁷⁵ The study quoted by Popenoe and Johnson (1933) was conducted by J.D. Heilman, and presented in the 27th Yearbook of the National Society for the Study of Education, Part II, 1928, pp. 35-65.

80% to heredity” and “home environment accounts for probably 17% of the differences in this study” (p. 3). Thus education was seen as benefitting only those whose genetic make-up could reasonably profit from the training and schooling they received. This lack of enthusiasm did not extend to eugenics education, especially for women and those men who would become the professionals, scientists and leaders of the next generation of American technocrats and aristocrats. Thus eugenics education was always aimed at the upper strata of society, where it could be of enormous benefit in reformulating society along rational, eugenically sound lines. Or, as Johnson and Popanoe stated, in terms that resonate in the wake of the Occupy Movement, “something like 1% of the population of the country is as likely to produce a man of genius as is all the rest of the population put together, – the other 99%” (p. 14).

we will assume for the time being Weismann’s main conclusion to be correct. One of the chief features of his theory is the non-inheritance by the offspring of characteristics acquired by the parents in the course of life. Thus good or bad habits acquired by the father or mother in their lifetime are not inherited by their children. The effects of special training or of education on the parents have no direct influence on the child before birth. The parents are merely trustees who hand down their commingled stocks to their offspring. From a bad stock can come only bad offspring, and if a member of such a stock is, owing to special training and education, an exception to his family, his offspring will still be born with the old taint.² Now this conclusion of Weismann’s—if it be valid, and all we can say at present is that the arguments in favour of it are remarkably strong—radically affects our judgment on the moral conduct of the individual, and on the duties of the state and society towards their degenerate members. No degenerate and feeble stock will ever be converted into healthy and sound stock by the accumulated effects of education, good laws, and

¹ His theory of the “continuity of the germ plasm” is in many respects open to question, but his conclusion as to acquired characteristics being uninherited stands on firmer ground. See Weismann, *Essays on Heredity and Kindred Biological Problems*, Oxford, 1889. A good criticism will be found in C. L. Morgan’s *Animal Life and Intelligence*, chap. v.; a summary in W. P. Ball’s *Are the Effects of Use and Disuse Inherited?* The reader should also consult P. Geddes and J. A. Thomson, *The Evolution of Sex*, and a long discussion in *Nature*, vols. xl. and xli. (*sub indice*, Weismann, *Heredity*).

² Class, poverty, localisation do much to approximately isolate stock, to aggregate the unfit even in modern civilisation. The mingling of good and bad stock due to dispersion is not to be commended, for it degenerates the good as much as it improves the bad. What we need is a check to the fertility of the inferior stocks, and this can only arise with new social habits and new conceptions of the social and the anti-social in conduct.

Figure A2-22: Karl Pearson in *The Grammar of Science* (1900, p. 26), on the merely temporary value of education, versus the permanent effects of heredity – an encapsulation of the prevailing progressive-era hereditarian *Weltanschauung* endemic to most American eugenicists and many educators.

Eugenics Education for a Progressive Public

Wherever a significant eugenics movement arose, it was quickly realized that education of the general public and the next generation of citizens, would be a vital component for any large-scale success, in what was recognized as a multigenerational endeavor. Even in Soviet Russia, the fledgling eugenics movement considered the educational forum as a method to spread the secular gospel of ‘Bolshevik Eugenics’. As Mark Adams highlights in “Russian Eugenics: 1900-1940”:

Like discipline builders elsewhere, the founders of Soviet eugenics felt a tension between reformist zeal and academic and professional caution... As for education of the public, most eugenicists endorsed the publication of popular works, and the establishment of new courses in universities and medical schools, although teaching eugenics to women in secondary schools provoked considerable resistance (Adams, 1990, p. 172).

In America, Galton’s eugenical seeds found more fertile political soil than the harsh Soviet steppes, where the capricious whims of Stalin and his cronies could doom a budding eugenicist or human geneticist to extinction or frozen-storage in Siberia (Adams, 1990, 182-198).¹⁷⁶ And in America of course, everything was bigger and grander. Eugenics exhibitions at state fairs, national events, and on display in museums were staples throughout the interwar period. These exhibits introduced the burgeoning American middle-class concerned with the social perils that eugenics promised to ameliorate, and the potential for an unbridled future of progress. *Better Baby* and *Fitter Family* contests pointed the way upward (*positive eugenics*). The need for *negative eugenics* was bluntly illustrated by dire warnings of *race-suicide* through the dysgenic action of *racial-poisons* such as alcohol, tuberculosis, venereal diseases and feeble-mindedness; all leading to racial degeneracy through a sort of neo-Lamarckian inheritance of acquired characteristics. Indeed, in America, as in the Soviet Union where it later reached ridiculous heights of absurdity, many early eugenicists retained Lamarckian concepts long after scientists had embraced the contrary theories of August Weismann and Gregor Mendel.¹⁷⁷

¹⁷⁶ The Soviet Union’s official adoption of ‘Michurinism’ (a Russian-brand of neo-Lamarckian inheritance of acquired characteristics), under the leadership of Stalin and Trofim Lysenko was to have very serious, and sometimes fatal consequences for Russian geneticists and eugenicists. Rejecting Mendel’s and other western geneticists theories as ‘Imperialist’ and ‘revisionist’, Lysenko (with the personal blessing of Josef Stalin) led a pogrom against many Soviet scientists who subscribed to Western scientific ideas and methods. Beginning in the 1930s, Lysenko promoted ‘Michurinism’ as a more Marxist-compatible and proletariat-friendly doctrine of inheritance and biological improvement. This movement was to have many dire consequences for Soviet agriculture, biological science, particularly for those Russian scientists and their students who dared to oppose it, especially in the Great Purges of 1937-40. After Stalin’s death in 1953, Lysenko and his disciples were gradually isolated and exposed as political opportunists and scientific charlatans. By then, several fields of Soviet biological science had been set-back by four decades (Kohlman, 2011).

¹⁷⁷ Teddy Roosevelt remained a committed neo-Lamarckian throughout his life, despite the conversion attempts of his eugenic advisors, such as E.A. Ross, H.F. Osborn, and Madison Grant. See Dyer (1980) for T.R.’s racial education.

Public exhibitions of eugenics in America followed a popular tradition established in 1915, when the Race Betterment Foundation, headed by John H. Kellogg, of breakfast-cereal fame, organized an elaborate display at San Francisco's Panama-Pacific International Exhibition, which received millions of visitors. Organizers included Stanford University chancellor David Starr Jordan, and Harvard University president emeritus Charles W. Eliot. The "exhibit offered a brief for enacting eugenics-based legislation that would support sterilization of 'defectives' and limit immigration to Northern Europeans" (Currell and Cogdell eds., 2006, p. 362). Parts of this exhibit were later used by eugenics experts, such as Harry H. Laughlin, who testified to 'educate' American congressmen on Capitol Hill, before the passage of the Johnson-Reed Immigration Restriction Act of 1924. This Act limited hopeful migrants from non-Nordic countries to their pre-1890 levels, greatly favoring the eugenically-approved stock from Anglo-Saxon nations. The law was not repealed until 1952, although some provisions persisted to 1965 (Engs, 2005, p. 126).

Eugenics displays sponsored by various American eugenics and social-hygiene associations were staples at many public events, often held in strategic conjunction with eugenics-related legislative hearings, votes or public referendums. A striking example is provided in "The Nazi Eugenics Exhibit in the United States, 1934-43" in a recent edited collection *Popular Eugenics: National Efficiency and American Mass Culture in the 1930s* (Currell and Cogdell, 2006, pp. 359-378). It includes provocative, well-illustrated chapters on eugenics in popular culture (including movies, novels, art), a sensational court-case that received international press coverage, and the incorporation of eugenics into sex education for girls. In addition there is a fascinating chapter devoted to a eugenics exhibit funded by the American Public Health Association, and prepared by the Deutsches Hygiene Museum of Dresden, circa 1933, shortly after the Nazi Party had gained control and passed its own compulsory sterilization law, which many American eugenicists applauded for its scope and authority.¹⁷⁸ Titled "Eugenics in the New Germany", it featured a number of pedigree charts for famous Germans, such as J.S. Bach, selected for their particular genius and showing how their offspring inherited their special talents and traits. Next, presented in stark contrast, are the dire economic and social imperatives for

¹⁷⁸ Laughlin's downfall began in 1935 when the CIW investigated Laughlin over his embarrassing support for eugenic sterilization in Nazi Germany. Laughlin caused further official embarrassment when he was awarded an honorary doctorate from the University of Heidelberg in 1937. He was forced to retire from Cold Spring Harbor around the same time CB Davenport formally retired. Ironically, Laughlin suffered from epilepsy, one of the dysgenic traits that the Nazis began to eliminate in 1939, the first mass use of Zyklon B and a training ground and technological pilot program for industrial genocide. Laughlin died a year before the War ended. (See Weindling, 1989 for the complete and truly frightful story of German race-hygiene and American influence).

the efficient sterilization of the mentally unfit, habitual criminals, homosexuals and other ‘sexual perverts’; all in state-of-the-art full-colour illuminated panels and 3-D models.

The exhibit arrived in California, which led all states in eugenic sterilization procedures, in the summer of 1934. The exhibit occupied 3000 square-feet in the Pasadena Civic Auditorium and was heralded by newspaper and radio coverage. It toured several large cities for several months before moving-on to Oregon, where the state legislature was currently considering expanding its own eugenic sterilization act, to include the kind of compulsory provisions adopted in the Third Reich and in California. After additional stops the display found a more permanent home at the Buffalo Museum of Science, until, with the outbreak of war in Europe, it was moved to storage, and finally destroyed in 1943, “when it had become a distinct liability for the museum” (Currell and Cogdell, 2006, 379). See Figure A2-23 below for a 1920s American analogue of this display, which toured public exhibitions educating the public in the basics of eugenics.

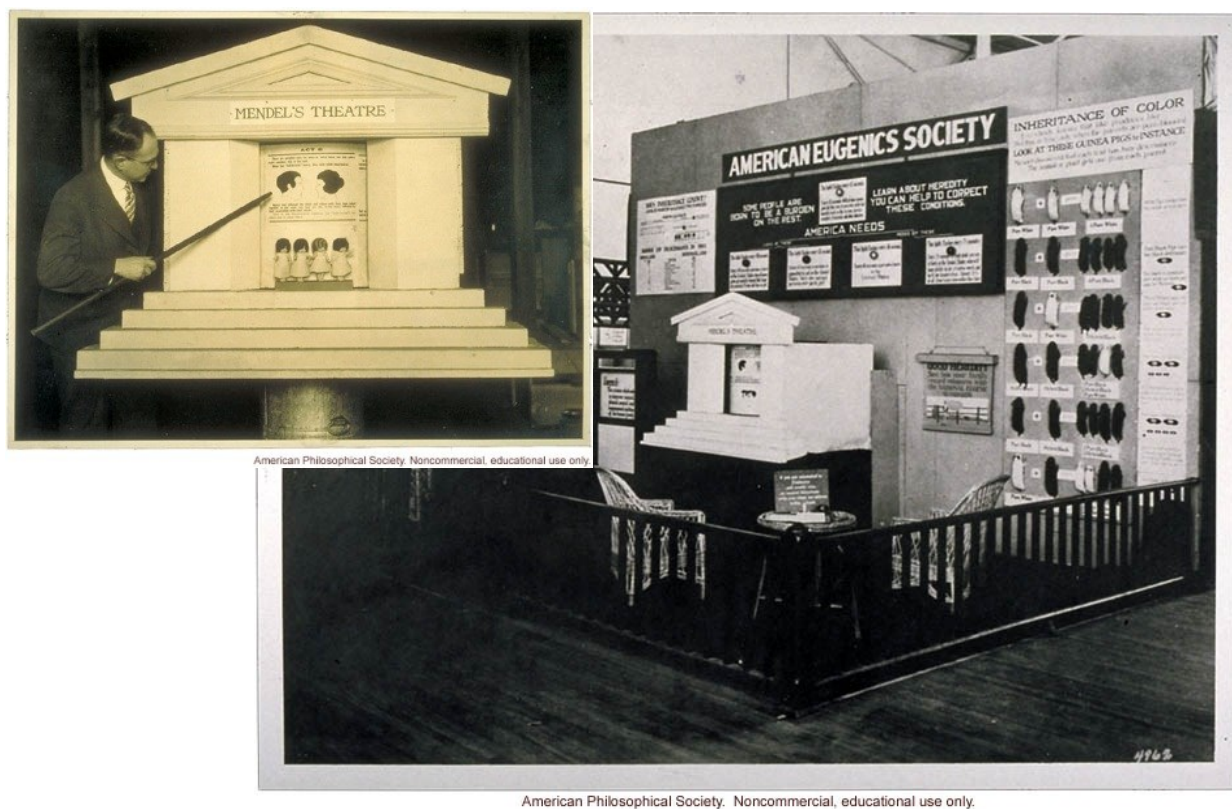


Figure A2-23: An example of an *American Eugenics Society* contribution to a display of popular eugenics. This image is from the 1926 Sesquicentennial Exposition in Philadelphia, featuring Mendel's Theater (in inset being demonstrated by geneticist and educator Leon F. Whitney of the *AES*), guinea pig coat color on right, and ‘America Needs’ at the top center. See Fig. 1 (p. 6) of previous chapter for the enlarged image of this multimedia version of the *AES*'s *Grammar of [Eugenic] Science*, as inherited from Galton's ‘hereditary genius’ and adapted by Pearson.

Public lectures and presentations to civic groups, political bodies, and professional associations were popular throughout the interwar period, as were promotional pamphlets and books, newspaper and magazine articles, and even church sermons. The extent to which the eugenics movement generated a fervent quasi-religious following is illustrated by its capturing the heart and minds of church-goers and their faithful shepherds. In *Preaching Eugenics* (2004), Christine Rosen provides a vignette of the religious appeal of popular eugenics:

In 1926 hundreds of Osgood's fellow clerics, representing nearly every Protestant denomination, as well as several Reform rabbis, preached eugenics across the country... The preachers spoke vividly of the powerful force of heredity and urged their congregations to put the tenets of this new science to the test in their own communities. Their efforts were part of a "eugenics sermon contest" sponsored by the country's preeminent eugenics organization, the American Eugenics Society, but the impulse to link organized religion with eugenics was much broader than a single contest could capture. (p. 4)

This evangelical fervor was sometimes also extended to professional groups across America. A particularly relevant example is the eugenical crusade conducted by Dr. Helen Putnam and the National Education Association's Committee on Racial Well-Being, profiled by Steven Selden in William F. Pinar's *Contemporary Curriculum Discourses* (1988, 50-65). Putnam was a distinguished pioneer in the field of public health, especially in efforts to reduce infant mortality, and a former president of the American Academy of Medicine. Beginning in 1916 she presented annual reports to the national conference of the NEA, as chair of the Committee on Racial Well-Being, established in 1916 (Selden, 1988, 60). Her first report, entitled "The New Ideal in Education: Better Parents of Better Children" reflected "an intriguing mix of pacifism, anti-capitalism, anti-individualism and biological determinism". Like her clerical brethren preaching to the pews, Putnam advocated a tough love, guided by conservative religious dogma, for American society and education: "If humanity is to survive, individualism and nationalism must conform to the laws of racial well-being" (p. 62).

Interpreting the laws of racial well-being, the committee employed Charles Davenport and other influential eugenicists, who served on an advisory committee, and acted as judges for disbursing honoraria and scholarships for the study of special excellence. At the 1921 conference, Putnam implored gathered educators to a higher calling: "It is as much the duty of educators to assure through educational procedures that individuals shall be well-born as that they are well-reared" (cited in Selden, 1988, p. 62). See Figures A2-24 and A2-25 on the following page for two diverse strategies for accomplishing this goal of racial well-being in the popular education arena.

Figure A2-24: Appearing first at the 1908 Louisiana State Fair, 'Better Baby Contests' combined physical with crude intelligence measures. They became a staple of eugenic displays at state fairs and exhibitions around the country until well into the Depression years. Note the medical professionals garbed in the white robes of scientific authority. Much like what would become the standard for 'Fitter Family Contests', measurements were based on a standardized score card. This 'scientific approach' was a new take on the already popular baby contests that were more geared toward pageantry and beauty than physical health.

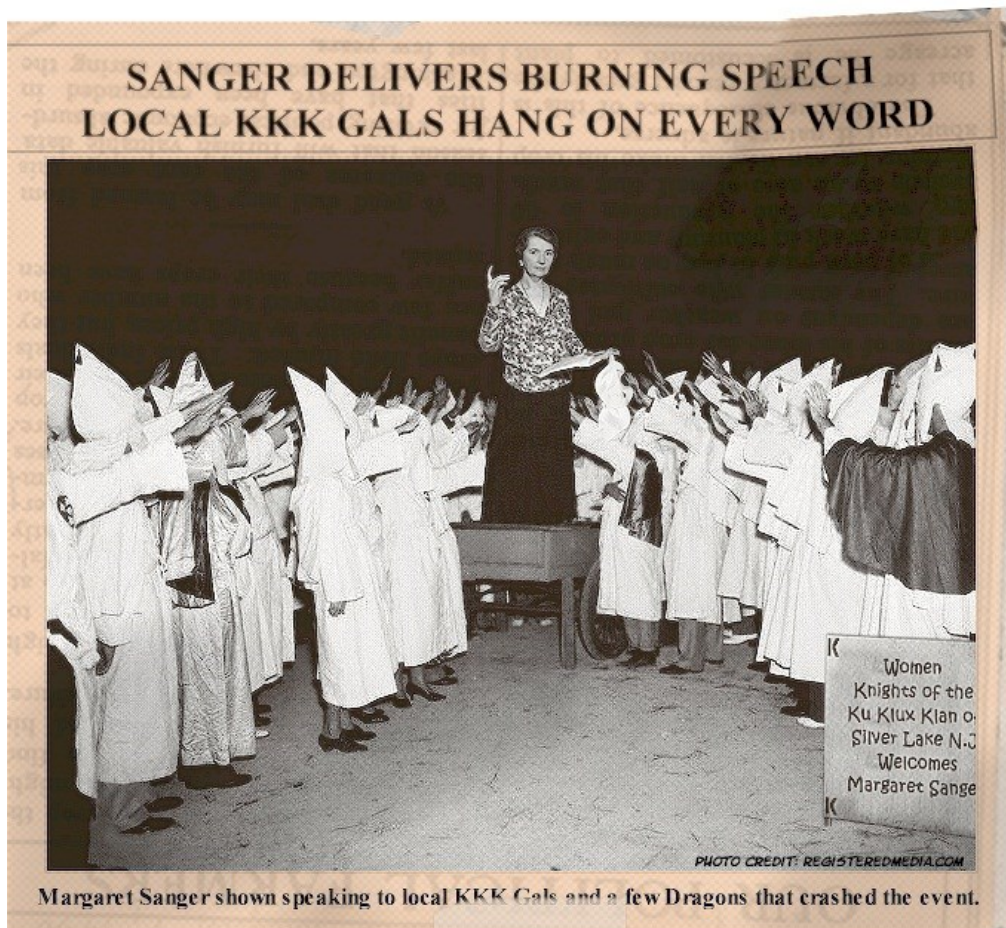


Figure A2-25: Birth-control and eugenics advocate Margaret Sanger giving a 'burning speech' to the assembled racial well-being enthusiasts of the 'KKK Gals,' in New Jersey in the 1930s.

Eugenical Curricular and Educational Leaders

The history of eugenics in curriculum and its teaching in schools is gradually being rediscovered as a new generation of scholars reveals evidence that had been forgotten, suppressed and hidden. One of the leaders in this field is Professor Steven Selden of the University of Maryland, who has written a comprehensive book, and numerous journal articles on the incorporation of eugenics into curriculum, textbooks, and educational programs in America. Selden's book, *Inheriting Shame: The Story of Eugenics and Racism in America* (1999), profiles the involvement of American educational leaders in the eugenics movement, and their efforts to incorporate eugenics into curriculum and formal education programs.

Several leaders of the early American eugenics movement had distinguished careers in the new field of curriculum theory, such as John F. Bobbitt, G. Stanley Hall and Edward L. Thorndike; or were deans and presidents of major colleges and universities, such as Harvard's Charles W. Eliot and Stanford's David Starr Jordan. Eliot, Jordan, and Thorndike were prominent members of all three of America's premier eugenics organizations: The Galton Society, The American Eugenics Society, and the Race Betterment Foundation (Selden, 1999).

J.F. Bobbitt, who went on to fame as a progressive advocate of child- and curriculum-study including *The Curriculum* (1918), wrote an early American eugenics article with profound educational implications. In "Practical Eugenics" (1909), in G. Stanley Hall's educational journal *Pedagogical Seminary*, Bobbitt implored the American public and their leaders to curb the "rampant immigration" of non-Anglo-Saxon Europeans, and argued that "little could be done for the child of worm eaten stock" (Selden, 1999, p. 41). Bobbitt dramatically warned that two sinister processes were at work in America. The first was the "drying up of the highest, purest tributaries to the stream of heredity" referring to the decreasing birthrate of the native Anglo-Saxon stock (Bobbitt, 1909, p. 388).¹⁷⁹ The second was the "rising flood in the muddy, undesirable streams" referring to the large differential in birthrates of the more recent influx of non-Anglo, non-Nordic immigrants from Southern and Eastern Europe, as well as the slaves brought to America before the Civil War. Bobbitt also lamented the dysgenic effect of charities and social workers working against the laws of evolution and nature:

Where 'survival of the fittest had previously ensured that society's best would continue, we are now faced with civilization's retrogressive policies. Our schools and our charities supply crutches to the weak in mind and morals [and thus] corrupt the streams of heredity which all admit are sufficiently turbid (Bobbitt, 1909, p. 387).

¹⁷⁹ The term 'native-American' refers to 'old-stock' Anglo-Saxons who came during colonial times. For the most part, eugenicists ignored American Indians as they were already segregated on their reserves apart from WASP society.

David Starr Jordan nurtured Leland Stanford Junior College into one of America's largest and most prestigious private universities. He was also a prolific writer in the eugenics field, decrying the dysgenic effects of war, venereal diseases, and alcohol, and championing eugenic segregation and sterilization of the feeble-minded, as well as immigration and marriage restriction laws (Engs, 2005). His books included *The Blood of the Nation* (1902), and *The Heredity of Richard Roe* (1911). Likewise, Edward Thorndike, a pillar at Columbia's Teacher's College, found time not only to serve on the advisory and editorial boards of these eugenic organizations, but also promoted their agenda in his more mainstream works, including what is perhaps his magnum opus, *Human Learning* (1931). Steven Selden chooses a quote from the book to open the chapter "Popularizing Eugenics" in *Inheriting Shame* (1999, p. 39):

We have much to learn from eugenics, but even now we know enough to urge us to provide the intellect of man with higher and purer sources than the muddy streams of the past. It is our duty to improve the original inborn ability of man to learn. There is no better way of improving civilization than by improving man's own nature.

The list of eugenically-minded educationists also includes influential professors, such as Stanford's Lewis M Terman (co-developer of the Stanford-Binet I.Q. Test and the U.S. Army Alpha and Beta tests, along with Harvard's Robert M Yerkes), and administrators of juvenile detention facilities and 'training schools for the feeble-minded,' such as Vineland's Henry H. Goddard. Goddard, Terman, and J. McKeen Cattell were all former students of G Stanley Hall.

It was Goddard who coined the term 'moron' to indicate a higher-functioning category of the feeble-minded, especially worrisome to many eugenicists, as "these people could otherwise pass for normal" (Kevles, 1995, 77-79). It was their potential promise to conclusively detect the feeble-minded that led Goddard to experiment with and 'Americanize' the Binet intelligence tests, in 1908-1911. Goddard wrote many eugenical tracts, but it was his portrait of an extended family of "degenerates" and feeble-minded "paupers and ne'er-do-wells" that became a template for a virtual slew of family pedigree studies, publicly exposing the decline of the germ-plasm quality of the American public. Goddard used a Greek pseudonym for a real family living in New Jersey not far from the Vineland Training School for Feeble-minded Boys and Girls, where he was director of a new laboratory for the study of mental-deficiency. *The Kalikak Family: A Study in the Inheritability of Feeble-mindedness* (1912) was featured prominently in subsequent textbooks and eugenics courses (including examples listed in later sections of this paper), and was offered as scientific proof for the 'menace of the feeble-minded' at state and federal hearings for immigration restriction, compulsory sterilization, and other social-

hygiene issues. The many family pedigree charts showed the inheritance of feeble-mindedness, sexual immorality, alcoholism, criminality, and insanity in the ‘bastard-family’ of Martin Kallikak after his “unholy union with a feeble-minded bar-girl” during the American Revolutionary War. All these inherited social-evils were portrayed as simple Mendelian recessive-traits, in the same manner as wrinkled seeds in Mendel’s corn plants or white-eyes in a fruit-fly. For Goddard, the results of this groundbreaking study clearly showed that feeble-mindedness and its attendant social-evils were “transmitted as regularly and surely as color of hair and eyes” (Kevles, 1995, p. 79). See Figure A2-26 for a graphic representation of Goddard’s family portrait, in a 1934 German translation.



Figure A2-26: A portion of a lavishly revised Kallikak Family pictorial taken from a 1934 German translation (*Die Familie Kallikak*) of Goddard’s 1912 classic. This picture includes English translations of the German terminology. For the American ‘civic-biology’ equivalent see p. 171 of Smith (1985). For a complete, unadulterated image of the 1934 German version see p. 163 of J. David Smith’s *Minds Made Feeble: The Myth and Legacy of the Kallikaks* (1985). The semiotic message has been translated as well. A 1935 Nazi-approved race-hygiene textbook altered the caricatures of the ‘Kakos-side’ of the family to resemble the Polish Jews accused of encroaching into the borderlands of the Reich, especially into the vast farmlands of East Prussia, Silesia and Posen.

Like several of his renowned students, G. Stanley Hall's involvement in the eugenics movement had profound implications for education.¹⁸⁰ As Kliebard (1986, p. 47) notes, Hall believed that:

nature not only fixed the stages through which all human beings passed, but determined the limits of human educability and, hence, the nature of the social hierarchy. A strong believer in hereditary determinism, Hall advocated differential instruction based on native endowment and even separate schools for “dullards” in the elementary grades.

Of course, the mental tests developed by the likes of Goddard, Laughlin, Terman, Thorndike and Yerkes, all members of the AES, were to be important instruments in differentiating the dysgenic ‘dullards’ from the ‘eugenic gold’. Yerkes, as a former president of the American Psychological Association, Harvard professor, and director of the Army Mental Testing Program, was a powerful advocate for their use throughout the education system. They were also recommended as a filter for immigration, by the AES Committee on Selective Immigration. It was felt that using these new scientific mental measurements would benefit the eugenicists’ cause in three important ways:

First, the use of these tests would aid them in arguing for the hereditary nature of intelligence, a key assumption of the movement. Second, the very act of administering the examinations would legitimate the tests. And third, it would give professional status to those who administered them (Selden, 1999, p. 29).

These pioneering wizards of biometry and psychometrics were proved to be right on all counts, even if few people today are aware of their eugenic origins. The military’s continued dalliance with intelligence/aptitude testing and their widespread use in education continued to justify racial discrimination and preferential treatment for established elites long after their cultural biases were exposed. Brigham, Goddard, Terman, Thorndike and Yerkes were active for years, advocating for and publishing articles and books with eugenic advice and methods for progressive education. Goddard in particular, was especially prolific in authoring educational texts, such as *School Training of Defective Children* (1923). This is not particularly surprising, considering his upbringing in rural Quaker schools in Maine, and his first career as a teacher in Quaker schools and junior colleges (Zenderland, 1998).¹⁸¹

¹⁸⁰ Ironically, another of Hall’s former students, John Dewey, after an early dalliance with eugenics, became one of its greatest resisters in educational academia.

¹⁸¹ Goddard’s mother found her true calling as a Quaker preacher following the death of her husband when Henry was eight years-old. She was often away from home preaching the Quaker gospel, leaving Henry in the care of relatives or the church’s boarding schools where he received his primary and secondary education. I wonder if Henry identified his mother with Martin Kallikak’s ‘worthy Quakeress wife.’ See Smith (1985, p. 171) for a graphic depiction.

Eugenics in the Classroom

The inclusion of formal eugenics instruction in schools and colleges was more problematic than many disciples had envisioned. In some American states or Canadian provinces, for instance with majority Catholic or large immigrant populations, politicians and elected officials barred the gate to any overt inclusion of eugenics, especially at the high school level. There was also sometimes considerable resistance on the part of school administrators, parents and whole communities. Elsewhere, however, attempts at eugenics education found fertile ground. Several states of the American South for instance, especially those states where racial segregation was already the law of the land, quickly made eugenics a much desired field of study.

By 1914, Harvard, Columbia, Cornell, Brown, Wisconsin, Virginia, Northwestern and Clark all offered courses devoted to eugenics. In 1912, Roswell H. Johnson began a eugenics course at the University of Pittsburgh, and a large number of textbooks began to appear, including Johnson's own *Applied Eugenics* (1918), co-authored with Paul B. Popenoe, then the chief editor of the *Journal of Heredity* (Haller, 1963). At the post-secondary level, the number of American colleges and universities offering separate eugenics courses grew from 44 in 1914, to 376 in 1928, when some 20,000 students were enrolled (Cravens, 1978, p. 53).

In addition to discrete courses, eugenics was often incorporated into introductory biology or *civic biology* courses, where they were to influence even larger numbers of the next generation's business and professional leaders. This had been foreseen by the American Eugenics Society, whose Committee on Formal Education, had not only espoused the diffusion of eugenics across the curriculum, from the elementary school through college levels, but even prescribed an early form of inquiry-learning to make the instruction more effective:

Sensitive to charges that eugenics was a pseudoscience, [the AES Committee on Formal Education] recommended that information on human biology be made by "method of direct scientific observation rather than by methods of secondhand or hearsay evidence". As the committee's leadership instructed, "by thus substituting direct observation and measurement, both physical and mental, for indirect and uncertain methods, we shall be laying a permanent foundation for the type of research required before eugenics can be accepted on a par with other experimental sciences" (Selden, 1999, p. 29).

The most common method of 'direct scientific observation' employed was the study of pedigree charts, as popularized by Davenport, Goddard, and other eugenicists, illustrating the inheritance of feeble-mindedness and other social-ills in simple Mendelian fashion, and thus experimentally confirming the danger of race-mixing, and the threat of race-suicide by the

uncontrolled reproduction of undesirables. Selden (1985) provides a revealing analysis of the penetration of eugenics into the college curriculum and its incorporation into biology textbooks, in his article “Education Policy and Biological Science: Genetics, Eugenics, and the College Textbook c. 1908-1931”. He describes the success of the AES Committee on Formal Education in infiltrating its agenda into the colleges of the nation, where the ‘cream of the American germ-plasm’ could be exposed to the eugenic gospel:

Whether as proponents of, or apologists for, a racially biased or class-structured social order the [eugenics] movement and its supporters were successful in educating young people to the hereditarian truths of eugenics. They save a central role for schooling in their vision of progressive human improvement that encompassed both the content of the curriculum and the form of educational institutions. It was a vision that required popularization and curricular implementation. The history of eugenics and American education suggests that these tasks were carried out simultaneously, and in many cases by the same cast of characters (Selden, 1985, p. 38).

Citing the intimate links between eugenics and education in the lead article of the first issue of the AES journal, *Eugenics: the Journal of Race-betterment* (1928), author Clarence C Little,¹⁸² a Harvard-trained biologist and then-president of the University of Michigan, offered hope to those progressives in education looking for a more scientific and professional basis for their discipline:

Described as two “new sciences’ eugenics and education were judged as interdependent based on education’s need for a scientific basis and eugenics ability to supply it. “Education” the article charged “has long felt the need for an adequate body of scientific data to provide for it the foundation necessary to any properly established profession” (Cited in Selden, 1985, p. 39).

Who were these ‘cast of characters’ that supplied the texts for these new scientific courses? Selden cites the top three used as coming from Charles Davenport (1911), Princeton’s Edwin G. Conklin (1915), and *Applied Eugenics* by Roswell Johnson and Paul Popanoe (1918), all charter members of the AES and other American eugenic organizations (Selden, 1985, p. 42). Conklin’s *Heredity and Environment in the Development of Man* went through six editions through 1965, while Popanoe and Johnson’s practical tome went through eight English editions through 1949, plus a 1922 Japanese version! See Figure A2-27 on next page for the contents page of the original (1918) version of *Applied Eugenics*. Thus the insiders, who formed the AES and its committee on formal education,

¹⁸² Little left his position at Michigan due to his outspokenness in favor of eugenics, birth control, and euthanasia. In 1929 he became managing director of the American Cancer Society and later served as President of the American Eugenics Society. From 1954 to 1969, he was the Scientific Director of the Scientific Advisory Board of the Council for Tobacco Research. In 1959 he refuted his earlier assertion, made as director of the ACS, that inhaling smoke particles is unhealthy, and stated that smoking does not cause lung cancer and is at most a minor contributing factor.

managed to get their own gospels of American eugenics into the classrooms and libraries of the nation. They were also joined by many other disciples.

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Figure A2-27: Contents of Popenoe & Johnson's very popular text *Applied Eugenics* (1918 edition).

Civic Biology at Eugenics High

Like their college counterparts, the first foray into eugenics for most high school students was usually in biology class. Selden (1999) includes a chapter that analyzes the content of the 41 high school biology textbooks, published between 1914 and 1948, that are found in the collection at the National Institute of Education Library in Washington. Over 87% of the texts included eugenics as a topic, and just over 70% “recommended eugenics as a genuine science” (Selden, 1999, p. 64). Goddard’s *The Kallikaks* (1912) family study from was mentioned in 60% of the texts studied and they often included reproductions of his pedigree charts. See previous Figure A2-26 for the Germanized pictorial version. Even though positive eugenics was emphasized in these texts, many authors still presented immigration-restriction and segregation/sterilization as public policy options. The appended ‘recommended sources for further reading or study’ pointed students to the same sources that supplied the college market and directed the eugenics movement.

The iron-man evangelist of eugenics in high school biology texts was Dr. George W. Hunter, lecturer of methods of education in science at Claremont College in California, who produced no less than six eugenic volumes over 27 years. Hunter created the market with *A Civic Biology: Presented in Problems* (1914), updated in 1926. It was followed by *Problems in Biology* (1931), *Biology: The Story of Living Things* (1937), and culminated in 1941 with *Life Science: A Social Biology* (Selden, 1999, 70-76).¹⁸³ Hunter and his *Civic Biology* became minor celebrities during the ‘Scopes Monkey Trial’, when it was revealed that high school biology teacher John Scopes used this text in his class (Clark, 2001, 1276). It is interesting to note that it was the coverage of human evolution, not eugenics, which was the pertinent issue in that notorious trial.

Although the treatment of eugenics varied over time, the same messages and sources were used throughout the period, despite considerable contrary evidence from new genetic research that discredited the oversimplified Mendelian rules of inheritance for the complex traits that remained the staple of eugenics literature. In his treatment of the possibilities of eugenics in solving social biology problems, Hunter (1941) did not shy away from sensitive topics:

To make matters worse, the feeble-minded are breeding much faster than the mentally fit. To meet this situation, it is necessary to have some physical control, thus preventing this kind of person from breeding. Two methods, one segregation into separate institutions for males and females, the other sterilization...are possible practices. A third is by practicing [positive] eugenics, by having those of good physical constitutions and mental ability marry and have many children. (p. 767)

¹⁸³ Hunter also co-authored the very ‘progressive’ *Science in our World of Progress* (1935), a civic-science text aimed at the junior high market, volume 3 of the ‘March of Science’ series, which features several eugenic-themed chapters.

Even as America was being reluctantly drawn into the war already raging in Europe, Hunter raised the eugenic possibilities of war: “a good biologist would...[send] the mentally unfit to be killed off and [keep] the biologically fit at home to continue the race” (cited in Selden, 1999, p. 76). Other authors continued to include eugenics as topics for chapters even after the war had ended, such as Zoology chair (1911-1945) Michael F. Guyer of the University of Wisconsin (a colleague of E.A. Ross for many years). Guyer introduced eugenics in chapter one of his *Animal Biology* (1948).¹⁸⁴ Despite the tame title, this text offered typical advice on human improvement that might have been found in German race-hygiene texts of the previous decade, or in Madison Grant’s *Passing of the Great Race* (1916), such as these bits of progressive-era eugenic wisdom:

Certain hereditary types are more valuable to society and the race than others... in many family strains the seeds of derangement and disability have become so firmly established that they menace the remainder of the population (Guyer, 1948, p. 552).

[A]t present the less able fourth of our population is reproducing approximately one-half the next generation. The greatest danger to any democracy is that its abler members and less prolific types shall be swamped by the overproduction of inferior strains. This has been the fate of past civilizations – why not America. (p. 556).

By the 1930s most American geneticists had professionally, though seldom publicly repudiated the claims of eugenics with regard to simple Mendelian inheritance of such traits as feeble-mindedness, sexual-immorality, and criminality. However, the eugenic biology texts did not keep-up with current research. As Selden concludes from his analysis of civic-biology texts:

Whether by consequence of what one might call a “dissemination lag” or by intention, the majority of the books did not report the conceptual and empirical changes under way in biology at the time... Indeed, most of these books reflected social attitudes and political theories rather than a clear rendering of scientific data... [and instead show a] commitment to a hierarchical and corporate social order that assigned individuals social locations based on their [perceived] hereditary worth that preceded and informed their discussion of human possibilities (Selden, 1999, p. 82).

This dissemination lag is evident in the latter works of both Hunter and Guyer. Selden notes that these books were not usually overtly racist, but instead allowed the evidence to speak for itself, much as the AES Committee on Formal Education had recommended. While this may have been generally true for many of the texts Selden examined in his survey, it does not apply to these two prolific authors, even after the racial excesses of American eugenics had allegedly been reformed.

¹⁸⁴ Guyer also authored *Being Well Born* (1916, 1926), a eugenics text used in high schools and colleges for decades.

For instance, in George William Hunter's (1937) *Biology: The Story of Living Things*, the issue of race still plays a prominent role, even if the title is rather innocuous and would not be out-of-place in a current textbook. Co-written with Herbert Eugene Walter, Professor of Biology at Brown University, and a George William Hunter III, Assistant Professor of Biology at Wesleyan University, it is described as an "ecological approach to a study of general biology" (vii). In Chapter XXIII entitled "That Animal, Man (Anthropology)" (pp. 130- 156), readers are served with a treatise on "the process of becoming human" (p. 131). After being introduced to our primate cousins, from Robert M. Yerkes primate research, the authors move to the origins of man in Java Man, Heidelberg Man, Piltdown Man,¹⁸⁵ jokingly referred to as "Charles Darwin's Neighbor" (p. 556), Peking Man, The Neanderthals (posited as a separate lineage to humans), and finally the "wild-horse and reindeer hunters", the *Aurignacians* and *Cromagnons*. Reading this sequence, I was struck by the eerie similarity to Henry F. Osborn's *Men of the Old Stone Age* (1915). Sure enough, it is listed as a primary reference and in the suggested readings section at the end of the chapter.

Consistent with the elder Osborn's *Nordicist* racial worldview, Hunter *et al*, next devote six pages to the races of man, and students are instructed that "The science of *Ethnology* is concerned with sorting out different races by means of an analysis of their several characteristics" (p. 559). In a long paragraph on the "*White race*", we are told it is "divided into at least four sub-races, namely the Mediterranean, Armenoid, Alpine and Nordic."

Individuals of the *Mediterranean sub-race* are typically short, slender, olive-skinned, narrow nosed, and long-headed. They include various peoples of the Mediterranean coasts, Spaniards, Portuguese, Greeks, Cretans, some Italians, Persians, Berbers, Arabs, Phoenicians, most Egyptians, and some Irish and Welsh. The *Armenoid sub-race*, characterized frequently by a prominent convex nose, have, in many instances, a decided flair for commerce... They include Armenians, Turks, some Persians, and Jews. The *Alpine sub-race* is made up for the most part of stocky, round-headed people, including many Russians, Greeks, Swiss, North Italians, South Germans, Balkans, Czechs, Poles and French. The members of the *Nordic sub-race* are characteristically tall, fair-haired, and blue eyed with narrow, fine-featured faces and well-developed chins. They include Scandinavians, North Germans, Netherlanders, Flemings, many English, Scotch and some [European] Russians. (pp. 561-562)

¹⁸⁵ Piltdown Man or *Eoanthropus dawsoni*, was discovered to have been a hoax in 1953. Discovered in Sussex in 1912, and consisting of the lower jaw of an orangutan and the skull of a fully modern human, the find was hotly contested for years, but Osborn for one accepted the find as genuine in all his anthropology publications until his death. The Piltdown specimen fit nicely with Osborn's theory of racial degeneration of the original Mediterranean race that settled England in pre-Roman antiquity. For more details see Kohlman (2012). *The Anthropology of Eugenics in Progressive America*. *Alberta Science Education Journal*, 42(2), 32-53.

After these descriptions of the races of man, the authors introduce the ethnological tools and measurements for sorting humanity, in a section entitled “Passing Muster” (p. 563). Students are also directed to “a compact pocket manual, entitled *Essentials of Anthropometry*,” published by the American Museum of Natural History.¹⁸⁶ Diagrams showing critical skull measurements and a photo of cranial calipers used by physical anthropologists for racial studies are illustrated and explained. This may not be overtly *racist*, but it is certainly overtly *racial*. The final unit, “Man as a Conqueror,” begins with chapters on ecology of plants and animals as well as their breeding by man and the harm caused by diseases, parasites and invasive species.

The short final chapter: “The Next Million Years” (pp. 637-643), serves-up a program on “Human betterment”, the “Biological background of eugenics”, and “The moral at the end of the tale.” The ‘suggested readings’ by prominent eugenicists, include books by Major Leonard Darwin (*What is Eugenics?*, 1929), Samuel J. Holmes (*Human Genetics & its Social Import*, 1936), Ellsworth Huntington (*Tomorrow’s Children*, 1935), Popenoe and Johnson (*Applied Eugenics*, 1933), Albert Wiggam (*Fruit of the Family Tree*, 1931). Hunter even provides the address of the Eugenics Record Office at Cold Spring Harbor “for information of all sorts about eugenics” (pp. 642-643).

As with Hunter and Son, so too is the case with Michael Guyer. In *Speaking of Man* (1942), even as the ‘Final Solution’ was being implemented in Nazi-occupied Europe, we have these words of eugenic wisdom the opening chapter, entitled “Biology and the Happy Life”:

Yet war, grave as it is, is probably not as serious a menace as the racial deterioration which is occurring in various civilized countries through the disproportionate increase of defective and undesirable strains. No government can rise far above the level of abilities of its constituents... In brief, it is a biological problem. The greatest danger of any nation is that its abler and less prolific types will be swamped by the overproduction of less able strains. We have so eased the rigors of social and physical environment that inferior stocks are not only holding their own but some of them are increasing faster than desirable ones, and unless we can institute an intelligent selection in place of the natural selection which we are thwarting, the prospect for our nation—for civilization as a whole, indeed— is, to put it mildly, far from encouraging. (p. 9)

One has to wonder what the trajectory of American eugenics and its educational derivations might have been, had the post-war anti-Nazi backlash not eventually squelched the movement, at least temporarily. Another critical dimension of eugenics education that posed a persistent and perplexing problem for American eugenicists and their educational agents was the delicate problem of eugenics education for girls and women, which is the next waypoint in this eugenical saga.

¹⁸⁶ Henry F. and Frederick H. Osborn’s domain in New York City (Site of the 2nd International Eugenics Congress).

Encouraging the ‘Mother of Tomorrow’¹⁸⁷

Although the leadership of American eugenics organizations was predominantly professional, middle-class, middle-aged, white-men, eugenics had its fair-share of support from women, mostly in the form of loose alliances with various social-movements. The Birth-control and Temperance movements, as well as other contemporary ‘feminist’ social-hygiene organizations tentatively supported eugenics, and vice-versa, in a somewhat tenuous symbiotic mutualism. One of the fundamental goals of eugenics was to re-establish the primacy of prolific motherhood among the “fitter classes” of women, especially female college graduates, while negating the problematic modern diversions of extensive career and educational ambitions. The Janus-face was to suppress the reproduction of the feeble-minded ‘moron-girls’ and ‘women-adrift’ – whose alleged precocity was equaled only by their mythic fecundity – and to combat the so-called ‘racial-poisons’ of alcohol, tuberculosis, venereal diseases, and other vices that afflicted the ‘less desirable’ groups of American women. As Wendy Kline asserts in her introduction to *Building a Better Race* (2001):

Eugenicists promoted two opposing models of womanhood that suggested the importance of gender to eugenics ideology: the “mother of tomorrow” and the “moron girl.” The mother of tomorrow represented the [eugenic] procreative potential of white middle-class women, while the moron symbolized the [dysgenic] danger of female sexuality unleashed. Together these models, which carried great symbolic weight in the eugenics movement, demonstrated that the eugenic definition of womanhood was double-edged: it portrayed women as responsible not only for racial progress but also for racial destruction (p. 15).

Teddy Roosevelt placed the blame for *race-suicide* on white-womanhood. Women of “good stock” who chose not to have children, were “race criminals”, and jeopardized the continuance of the American empire, since “no race has any chance to win a great place unless it consists of good breeders as well as good fighters” (Kline, 2001, p. 15). No segment of American femininity seemed to offer as much eugenic promise of being ‘good breeders’ as those who comprised the population of women’s colleges, and those few universities that equally accepted women as students, outside of the traditionally female schools and faculties, such as nursing and teaching. This dysgenic problem of the ‘differential birth-rate’ between the ‘fit and unfit’ members of the white-race was to preoccupy eugenic think-tanks for decades, from the time of Teddy Roosevelt’s warning of race-suicide in the first decade of the 1900s, through to the last-hurrah of organized American eugenics in the baby-boom years. See Figure A2-7 of previous section for the graphic description of race suicide and the threat of unfit mothers in American society.

¹⁸⁷ For a ‘graphic analogue’ of this term see Figure A2-7 on page 391.

Edward L. Thorndike, among others, lamented this differential-birthrate in 1903. By 1915, in “Education and Race Suicide,” Robert Sprague charged that women’s colleges were “drawing off the best blood of the American stock and sinking it in a dry desert of sterile intellectuality and paralytic culture” (Sprague, 1915, p. 160). University of Pittsburg professor (and *Applied Eugenics* co-author) Roswell H. Johnson warned that the “extraordinary inadequacy of the reproductivity of these [womens’] college graduates can hardly be taken too seriously” (Vigue, 1987, p. 52). Johnson’s former co-author Paul Popenoe, sermonized in 1926 that it was “little less than a crime to advise girls to wait until they are 30 or more to marry, in order to get a better preparation... for a career rather than marriage” (cited in Rembis, 2006, p. 103).

According to Popenoe, there was “probably not one such case in a hundred where the advice is really justified; but the girl, misled by the vanity of her parents and the praise of incompetent teachers who want a pupil... spends great amounts of time and money in training only to find later that there is no career for her, or, if there is, that she would have preferred a family”. Eugenists insisted that parents should help their daughters fulfill their biological destiny and become good wives and mothers; anything less would be a tragic waste of time and effort. (p. 103)

Vigue details the growing concern, explanatory theories, and suggested remedies for the ongoing problem of the problematic differential birth-rate in “Eugenics and the Education of Women in the United States.” At the ‘Race Betterment’ exhibit at the 1915 San Francisco Pan-Pacific Exhibition, and continuing with the popular ‘Better Baby’ and ‘Fitter Family’ contests of the 1920s and 30s, eugenists tried to promote the image of the ‘mother of tomorrow.’ Simultaneously they attempted to counter the combined threats of the extreme-fecundity of the ‘moron-girl’, the individuality and unchaperoned sexuality of the ‘woman adrift’ (perhaps best portrayed by the ‘flapper-girl’ of the 1920s), and the barren-spinster destiny of students at Bryn Mawr, Vassar, and Wellesley colleges.

The growth of eugenic policies after World War I was beginning to have the desired effect of limiting the reproduction of those “better-off never to have been born,” to paraphrase Supreme Court justice Oliver Wendell Holmes’ judgment in the 1926 *Buck v Bell* case. However positive eugenics goals proved more elusive, and depended heavily on re-orienting the education of women more interested in Greek classics, French poetry, or Freudian psychology. Roswell Johnson bemoaned the “stubborn resistance of these colleges to the introduction of education for domestic efficiency”... the enforced separation of the sexes, and charged that their failure to produce “girls trained to be efficient wives and mothers is one of the causes of the low marriage rate and late time of marriage... all of which was “contrary to the interests of society and the race” (cited in Vigue, 1987, p. 53).

Eugenicists began to see some hopeful progress on this front when women's colleges and co-educational institutions began to offer eugenics courses aimed at young women, as part of their offerings in biology, home economics¹⁸⁸, and sociology programs, as well as high-school courses that groomed potential 'mothers of tomorrow'. The peak of eugenic education for women did not occur until the 1930s, when the impacts and social-dislocations of the Great Depression fostered a new focus on the family, traditional morality and gender roles. A host of new eugenic texts aimed to redress the perceived problems. In a chapter from *Popular Eugenics* (2006) entitled "Explaining Sexual Life to Your Daughter" (named after the chapter-title of a popular Depression-era book *Eugenics and Sex Harmony*, first published in 1933) author Michael Rembis outlines the growth of eugenic literature and education programs aimed at young women. The topic was also featured in the 'eugenic catechism' *Tomorrow's Children*, written by Yale's Ellsworth Huntington (1935), then-president of the AES. Like the well-known Baltimore Catechism, it is written in question-and-answer format. Echoing the depression socialism of Roosevelt's 'New-Deal' policies, as well as Francis Galton's analogous Victorian-era scheme, Huntington recommended a sliding scale of economic incentives, in the form of direct-subsidies and tax-credits, for eugenically desirable parents to have larger families.

Taking a cue from Paul Popenoe's earlier (1926) treatise on eugenic marriage, one of the first educationists to respond to this dire need for women's eugenics was North Carolina professor Earnest R. Groves, a member of the Advisory Council of the AES (See Figure 3). His pioneering course, and popular book, *Preparation for Marriage*, introduced in 1936, linked the science and sociology of eugenics to mate selection and marriage. These new initiatives, as noted by Kline (2001, 2006) and Rembis (2006), signaled a newfound emphasis on family, environment and upbringing, while retaining hereditarian priorities, and a growing desire to distance American eugenics from the overtly racist tone of the Nazi race-hygiene programs that were alienating many liberals and moderates at home:

Proponents of eugenic education focused their campaign largely on young women, particularly those attending college... [agreeing] with Paul Popenoe's assertion that sex "played a somewhat larger part in the life of woman than of man" and "if there is to be any difference in emphasis, women should have a more thorough preparation for family life than do men." The result, at least in part, was the creation during the 1930s of college-level courses that were aimed primarily at women and specifically dealt with marriage, family and eugenics, as well as concerted efforts to inculcate eugenic ideals in young women and girls, in their homes, grammar schools, and high schools (Rembis, 2006, p. 103).

¹⁸⁸ I find it interesting that the term 'Home Economics' has been replaced by 'Human Ecology' at this university, especially considering this faculty taught a sort of 'civic human ecology' during the height of our eugenics program.

Proselytizing Professors of Eugenics

For educators who wish to learn more of the prophets of eugenics in formal education, two recent case-studies offer an enlightening revelation of personalities, professional careers and the impact of eugenics instruction at the college level. A recent example is the almost-comical story of Harvard University's physical anthropology professor, Earnest A. Hooton (1887-1954), in Nicole Rafter's "Apes, Men, and Teeth" contribution to *Popular Eugenics* (2006). Like a surprising number of American eugenicists, Hooton's parents were a Methodist minister father, and a schoolteacher mother, but unlike the very 'upper-crust', they were recent immigrants, from England and Canada, respectively. Hooton earned his first doctorate at Wisconsin (Madison), before travelling to University College, Oxford, as a Rhodes scholar, earning advanced degrees in anthropology and anatomy, in 1912 and 1913. Hooton's interest and early scholarly work in pure physical anthropology gave way as time passed to a greater passion for eugenics, and he began researching, for instance, the hypothetical hereditary-link between crime and poor dental-health.

Hooton had a career-long (1913-1954 at Harvard) fascination with tooth-decay as a metaphor for the genetic deterioration of the races of humanity. One example of his creative 'genius' for allegorizing the eugenic downfall of humanity can be extracted from this short piece of dental doggerel verse, regarding the hereditary woes of 'Rhodesian Man', discovered in Africa in 1921, of whom Hooton lectured extensively in his class:¹⁸⁹

It is the guy, Rhodesiensis with whom our tooth decay commences:
Caries, abscesses, gingivitis, Otitus media and arthritis.
I hardly think a brute so crude could blame his teeth on processed food.
Perhaps dental degeneration started with germinal mutation.
(Rafter, 2006, p. 256)

Hooton's 1937 opus: *Apes, Men, and Morons* cracked best-seller lists in the Great Depression. See Figure A2-28 on following page for a picture of Hooton with one of his anthropoid specimens, and his popular appeal in American society. His professional influence lived-on through the discipleship of his former students, with "three nearly identical introductory anthropology courses being taught at Columbia, Wisconsin, and Michigan, all by former students of Hooton, and apparently all based on notes taken in Hooton's popular class" (Rafter, 2006, p. 252). He became something of a celebrity and

¹⁸⁹ Henry F. Osborn, as the dean of eugenical American physical anthropologists completely rejected the African origin of modern humans. Instead, he postulated that primitive humans from Asia entered Africa and 'degenerated' into the black races, while those who entered Europe evolved into the Aurignacians and Cromagnons of the *Old Stone Age* (1915). See Kohlman (2011, 35-39) for more on Osborn's denials of any African origin of modern humans in Europe.

his influence became national even before his popular book hit bookstands. Nicole Rafter describes a career that many ambitious academics would give their eye-teeth for:

Hooton became an early example of the professional media star, his activities reported by the *New York Times* and other newspapers and his work profiled by magazines such as *Life*, *Look*, *Newsweek*, and *Time*. A witty and stimulating speaker he participated in radio debates, delivered distinguished lecture series, and addressed Harvard clubs, eugenic groups, and dental associations. In addition, Hooton wrote for general-interest magazines such as the *Atlantic Monthly* and *Collier's* and for specialized dental journals, developing a pop eugenics form of essay that linked evolution – including the evolution of teeth – to eugenics. (p. 252).

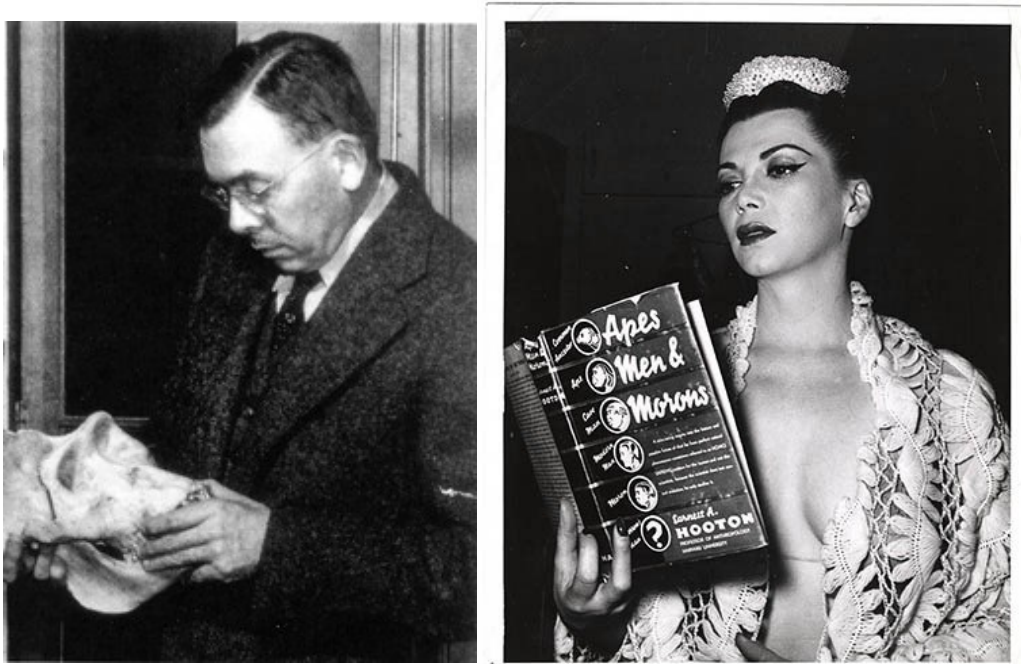


Figure A2-28: Left: Ernest A. Hooton with one of his dental-challenged specimens of racial deterioration, in a scene out of *Hamlet*. Is something rotten in the State, or at Harvard? Right: Showgirl Sherry Britton catching-up on her eugenic reading with Hooton's 1937 bestselling popular text on evolution, bad breeding and its implications for America.

College Eugenics Education, Southern Style

If the story of E.A. Hooton provokes thoughts of *The Nutty Professor*, the second case-study may be more evocative of *The Boys from Brazil*, starring the late great Gregory Peck as a latter-day Angel of Death: Dr. Josef Mengele. Gregory Michael Dorr (2000) profiles biology professor Ivey Foreman Lewis' long and distinguished career at the University of Virginia from 1915 to 1953, in "Assuring America's Place in the Sun". It is an in-depth study based on official/personal papers and

correspondence, lecture notes, course outlines and reading lists; even 27 students' term-papers. Foreman taught thousands of students the finer points of eugenics and Southern-style race-hygiene during his thirty-eight year tenure. He also started a university chapter of the AES, and served as an advocate for both pieces of Virginia's 1924 eugenic legislation; one mandating compulsory sterilization for the feeble-minded and the *Racial Integrity Act*, banning inter-racial marriage (Dorr, 2000, p. 265). That same year (1924) Foreman made a speech to graduating Virginia students that was first reported by the *New York Times*, and then reprinted in the *Virginia Teacher*:

The one clear message that biological investigation has brought as its gift to the thought of the twentieth century is that the idea of environment molding something out of nothing is sheer nonsense. This disproved theory of the creative environment has been put forth in siren tones until the idea of the great melting pot, into which one can put the refuse of three continents and draw out good, sound American citizens has reached wide acceptance. It is simply and perilously false... The purity of the white race in America which we regard as a basal necessity for the maintenance of the heritage we have received risks destruction (Dorr, 2000, p. 272).

Foreman seems to be have been a very popular professor among his many students, some of whom continued to correspond with him years after graduation. He also served as an important advisor and confidant to university president Edwin Alderman. Alderman described Foreman in glowing terms "He is a gentleman by birth and breeding, and a cultivated gentleman." Dorr notes that Foreman managed to arrange the hiring of three avid eugenicists to faculty positions, and to block the appointments of others, who did not share his strong hereditarian views (Dorr, 2000, pp. 268-272). Foreman eventually rose to the position of dean of the College of Arts and Sciences at Virginia, and travelled throughout the state speaking to educators, including the Roanoke Teachers Association in 1937; waxing on the thorny subject of inherent inequalities between human beings:

There is a lot of sap-headed thinking...mostly based on the silly notion that all men are brothers and therefore alike in their potentialities. Actually there is no biological principle better established than that of the inequality of races, and yet sociologists, especially the Jewish ones, are loud and effective in their denial of any racial differences, even saying that there is no such thing as race. They deride and laugh to scorn such books as Madison Grant's "Passing of the Great Race" (cited in Dorr, 2000, 273).

In Foreman's 'Evolution and Heredity' course, Darwin's *Origin of Species* and Popenoe and Johnson's *Applied Eugenics* were the two most common books on Foreman's reading lists, but as Dorr documents, Foreman also revered some of America's most virulently racist authors, such as Lothrop Stoddard, Virginia's own Earnest Sevier Cox, and the aforementioned Madison Grant. With such titles between them as *White America*, *Teutonic Unity*, *The Rising Tide of Color Against White World-*

Supremacy, and *Revolt Against Civilization*, they would not be out-of-place in any cultivated contemporary Ku Klux Klansman's personal library. See Figure A2-29 below for an illustration of the impact these hardline American eugenicists had on the Nazi race-hygiene movement.

Foreman had already been a member of the American Association for the Advancement of Science (AAAS) before beginning his teaching career at Virginia. When he officially retired from this august organization in 1951, he had risen to the post of a vice-president. He made history when the organization refused to publish his racist and anti-Semitic retirement address, entitled "Biological Principles and National Policy" in its official journal *Science* (Dorr, 2000, p. 290). His collection of private papers at Virginia includes heartfelt letters of support from former students and well-wishers after this perceived slight at the end of his distinguished career. One letter in particular is quoted by Dorr for its ominous connection to the defeated Nazi regime in Germany that Lewis admired for its strict and comprehensive race-hygiene and eugenic policies:

James A. Tignor wrote "the German and his kindred races alone seem still to be dependable, honest, reliable and willing to work... The Gestapo [*sic* – should be the SS] was the only revolt of the fit people and I can well visualize it, if things keep on this way, as preferable. Enough is enough! Keep up the fight" (cited in Dorr, 2000, p. 291).

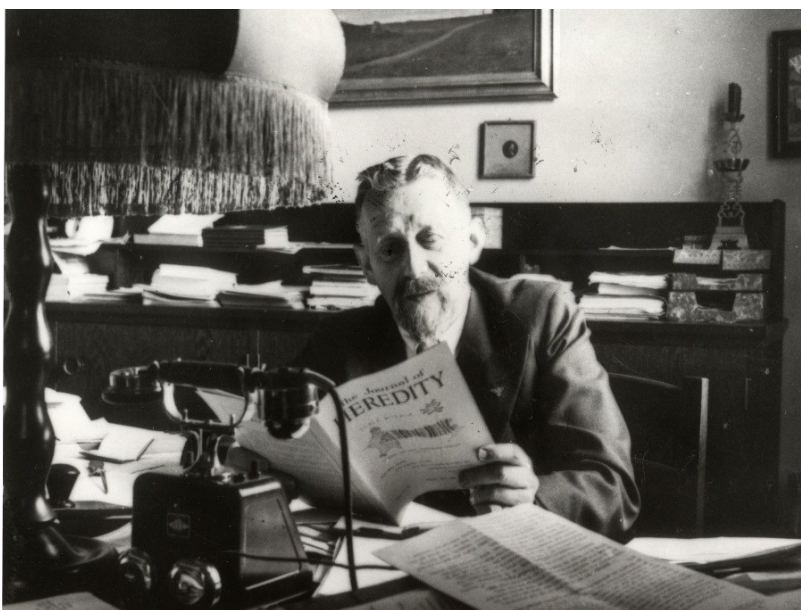
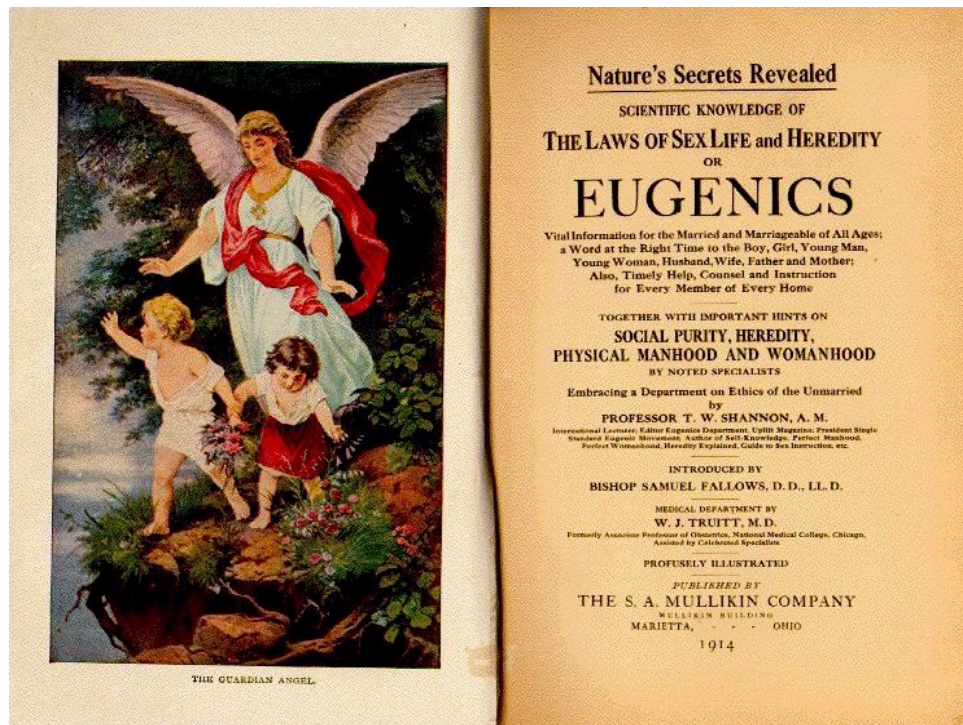


Figure A2-29: Professor of German eugenics and race-hygiene, Dr. Eugen Fischer reading a copy of the American *Journal of Heredity* in his office at Berlin-Dahlem. Fischer was one of a handful of veteran academic devotees of Teutonic eugenics who were recruited by the Nazi state to oversee and administer their State science-religion. Fischer served on the German Heredity Courts, providing judgments on the fitness for life of numerous *mindervertig* (inferior or useless). Over 200,000 were referred to be exterminated in the 'T-4' euthanasia pogrom, beginning in the Fall of 1939.

Appendix III for Evangelizing EUGENICS

Additional Reviews of *Today and Tomorrow* Volumes



Reviews are arranged in chronological order of publishing year, as listed below:

- | | |
|---|---------------|
| 1. Crookshank, F.G. (1924, 1931). <i>The Mongol in our Midst.</i> | Pages 438-449 |
| 2. Schiller, F.C.S. (1924). <i>Tantalus, or the Future of Man.</i> | Pages 450-462 |
| 3. Haldane, J.B.S. (1925). <i>Callinicus, a Defense of Chemical Warfare.</i> | Pages 463-471 |
| 4. Ludovici, A.M. (1925). <i>Lysistrata, or Womans Future and the Future Woman.</i> | Pages 472-493 |
| 5. Russell, D. (1925). <i>Hypatia, or Woman and Knowledge.</i> | Pages 494-515 |
| 6. Blacker, C.P. (1926). <i>Birth Control and the State.</i> | Pages 516-528 |
| 7 Brain, W.R. (1927). <i>Galatea, or the Future of Darwinism.</i> | Pages 529-543 |
| 8. MacFie, R.C. (1928). <i>Metanthropos, or the Body of the Future.</i> | Pages 544-567 |
| 9. Keith, A. (1931). <i>Ethnos; or the Problem of Race.</i> | Pages 568-590 |

The Racial Anthropology of F. G. Crookshank's *The Mongol in our Midst*, in the *To-day and To-morrow* Series

F. G. Crookshank's *The Mongol in our Midst: a Study of Man and his Three Faces* (1924), was the third volume published in the *To-day and To-morrow* series of books. In this radical anthropological-medical work, Dr. Crookshank (1873-1933) examines the many curious homologies (anatomical or physiological similarities) between members of the Mongol Race (true Orientals), the so-called Mongolian Imbeciles (people with Down's Syndrome or Trisomy 21 in today's terminology), and those 'normal people' with 'Mongoloid characters' who form a 'Mongoloid sub-type' within the white population of Britain or elsewhere. It also suggests a special anthropological kinship between the gorilla and the Negro, the chimpanzee and Semites, and the orangutan and Orientals. It is also an important milestone in the 'medicalization of eugenics' and a not-quite last-hurrah of scientific racism, before its long "retreat" (Barkan, 1992), along with hardline eugenics and Nordic racial anthropology. It is one of the few popular expressions of the Nordic-strain of Continental Racial Anthropology in mainstream British eugenics, and thus unique in the series. See Figure A3-1 below:

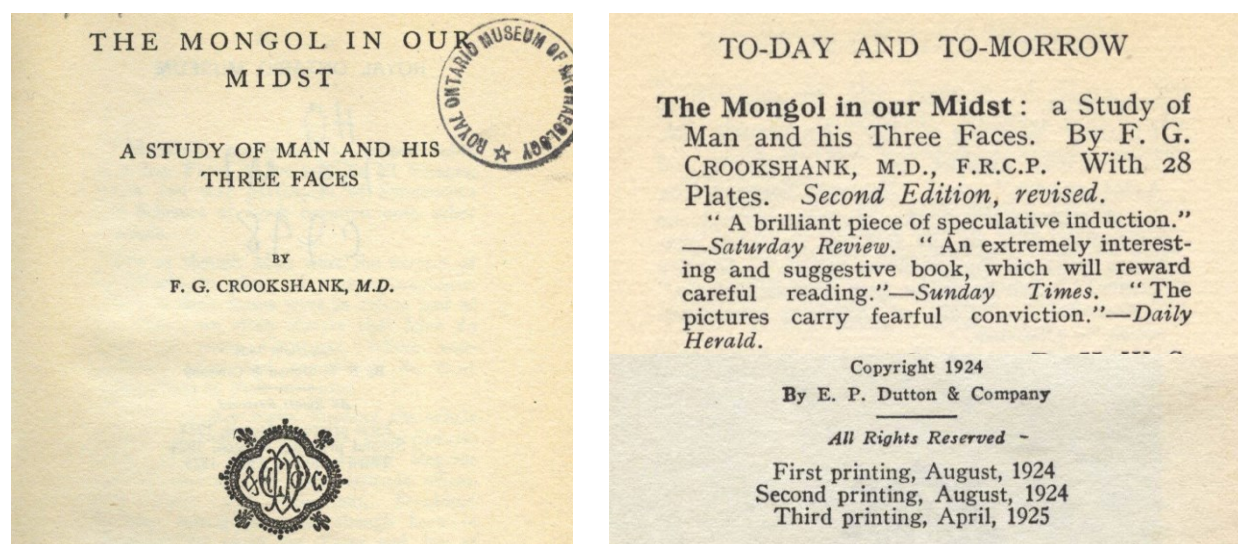


Figure A3-1: Title page and excerpts of critical reviews of *Mongol in our Midst* (1924) used in the advertising for the *To-day and To-morrow* series. It went through several initial printings, three editions, including a greatly expanded third (1931) with many photographs, and a German translation (1928).

Mongol is a remarkable departure from most of the series, for a number of reasons. First at 123 pages of text, plus the author's note and extended quotes by Dante and Sir Thomas Browne, it is the longest in the series, and almost unique in the inclusion of an additional 30 picture-plates. Crookshank is the only author in the series to provide an extended reference list (ten pages) at the end, referencing

academic sources from anthropology, archeology, ethnology and medicine; including several entries for Sir Arthur Keith (author of *Ethnos, or the Future of the Race*, 1931), as well as Doctors J. and R. L. Langdon-Down (father and son) who first characterized ‘Mongolism’ as a congenital disorder. It is also notable for its 1931 expansion to a full-length book (550 pages) by the same publisher, as well as a German translation (1928) that had dire consequences for ‘Mongoloid Imbeciles’ in the Nazi ‘T-4’ euthanasia campaign. But most atypical of all, the focus throughout this “brilliant piece of speculative induction” (see promotional review in Figure 1) is on man’s anthropological and racial origins in antiquity, and its implications for to-day, rather than a speculative forecast of the future (which Crookshank explicitly avoided). It should also be clearly stated that Crookshank maintains a rigorous scientific-medical detachment throughout; there is no overt eugenic evangelizing, or blatant advocacy for social-engineering. In this, *Mongol in our Midst* is more reminiscent of H. F. Osborn’s *Men of the old Stone Age* (1915), in its academic-tone and anthropological focus, as opposed to Madison Grant’s more partisan racial-history: *Passing of the Great Race* (1916), but still has the same Nordacist underpinnings.

The inclusion of numerous photograph plates is also reminiscent of contemporary anthropology or medical textbooks. These images added to this tone of medical-scientific authority; and for many layman readers not well-versed in anthropology, genetics, or physiology, these photos may have been the primary means for interpreting Crookshank’s “speculative inductions.” See Figure A3-2 below.

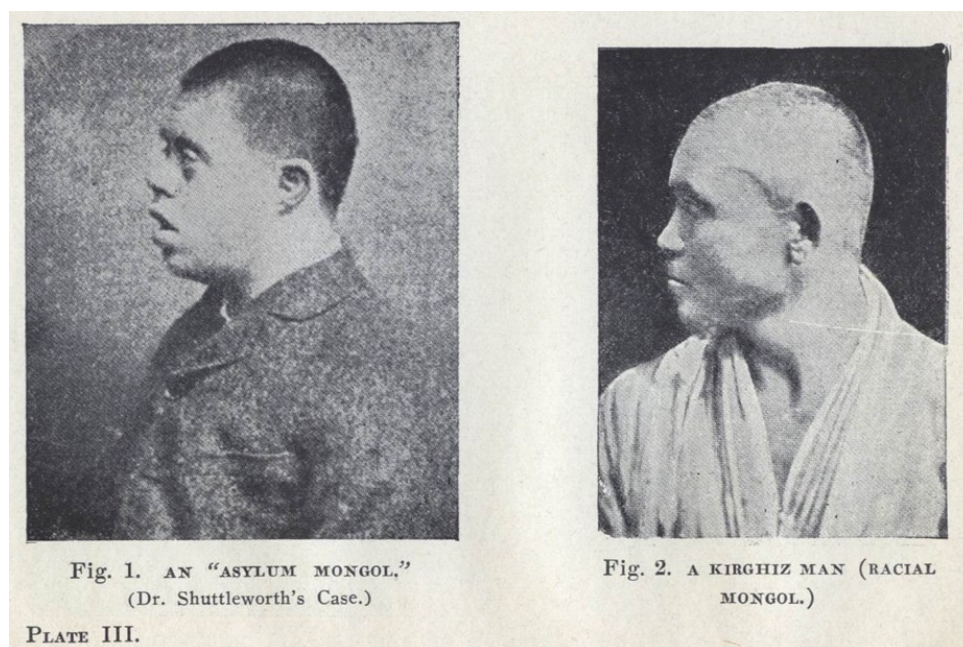


Figure A3-2: Similarities between a famous “Mongolian imbecile” and a “Racial Mongol” (p. 16). Images like this helped to “carry the fearful conviction” (see review excerpts in Figure A3-1) of Crookshank’s racial-hereditarian thesis for the existence of an “atavistic Mongoloid subtype” within the white population of the West to educated layman readers of *To-day and To-morrow*.

Mongol in our Midst was divided into three main parts: Narrative, Descriptive and Explicative; followed by the extensive reference list, as befitting an academic work in medical pathology or racial anthropology, rather than popular education or entertainment. Crookshank began his 'Narrative' by recapitulating Robert Chambers' *Vestiges of the History of Creation* (1844), in which the Negro was placed "at the foot of the ladder" of human creation, the Caucasian "at the top," and "the Mongol in between" (p. 2). Crookshank noted that Chambers was "then a monogenist," and was the anthropological inspiration for Darwin:

Anticipating the doctrine now known as that of recapitulation by the individual of the history of the race, [Chambers] maintained that a Caucasian foetus represents the Negro stage, and a Caucasian infant the Mongol stage of human evolution... in support of that theory he alleged a very striking fact to which altogether insufficient attention has been paid by anthropologists and ethnologists... He said that parents too nearly related tend to produce offspring of the Mongolian type—that is, *persons who in maturity still are a kind of children* [emphasis in original]. (p. 3)

The rest of the book is essentially a secular argument and scientific 'proof' for that evolutionary history, although Crookshank also made liberal use of biblical references to Ham, Japheth and Shem and other Old Testament characters and traditional allegories when it is helpful to his thesis. Crookshank also noted that Dr. Langdon Down (Sr.) suggested the classification of idiots and imbeciles by their "ethnic characters." Crookshank regretted the "recent tendency to deny" (p. 5) the racial resemblance of these unfortunates to focus on the mental retardation, and insisted it was the racial similarities or origins that were key to understanding Mongolism and other forms of congenital disorders, such as Cretinism and Acromegaly (which are hormonal rather than genetic conditions). Crookshank reviewed many other medical and scientific pioneers of these cases, before adding his own classification scheme for the 'Mongols in our Midst.' Note these categories are for "native Mongoloids"—not "racial Mongols."

- I. The "Infirmity Mongol" – feeble infants who often die shortly after birth in public hospitals and workhouses from "pure inanition or respiratory disease... They are even more simian than Mongolian." (p. 9)
- II. The "Hospital Mongol" – young children who are chronically sick, are "obviously mentally backward" and who often die, or who surviving, fall even "more into arrears." (p. 10)
- III. The "Asylum Mongol" – aged seven to fourteen who represent "the classical case of Mongolian imbeciles in the sense of Dr. Langdon-Down." (p. 10, 11)
- IV. The "School Mongol" – school children who betray the classic stigmata of Mongolism but who are not so backward as to be placed in special institutions. "These children, though not imbecile, are yet often difficult. They are 'odd,' yet lovable: they may enjoy a reputation as 'comics': they may be quite industrious, but they never achieve full success." (p. 11) See Figure A3-3 on next page for an example of the "School Mongol" alongside another "racial Mongol"

V. The “Mongol expatriate” – adults who in the ‘low-grade’ form almost always have “some simian stigmata... rank among life’s failures”... “knavish solicitors; ineffectual women, even in vice... they remain a race apart.” (p. 12, 13)

VI. Mongol ‘Carriers’ – adults who are not easily recognized as Mongols, but who carry one or more “*indicia* of racial Mongolism” in head shape, susceptibility to certain diseases, and who present a threat to society as potential parents of other, more obvious types. Crookshank states it is these individuals (who could otherwise ‘pass for normal’) that the physician is “most in need of the help that comparative psychology and anthropology can give him.” (p. 13)



Figure A3-3: Plate IV showing a British “School Mongol” alongside a true “Racial Mongol.” (p. 20) It is interesting to note that in these portraits Crookshank paired racial Mongols with Orangs, but never Caucasian Mongoloids with Orangs. Other photos paired gorillas with Negroes, or chimpanzees with Semites (both Jews and Arabs). See this racial ‘anthropomorphism’ in Figure 4 on the next page.

Crookshank’s ‘Narrative’ then turned to an extended ethnological survey of other races that do or do not show cases of Mongol imbecility [Caucasians (often), Mongols (less often), Semites (rarely), and Negroes and people from the Indian subcontinent (almost never)]. He devoted several pages to anecdotal evidence supporting these racial generalizations. He later introduced his associated pre-anthropological simian linkages: the Negro with the gorilla, the Semite with the chimpanzee, and the Mongol with the orangutan (See Figure A3-4 on next page). The Caucasian, although presumably more removed from any direct simian linkage, is nonetheless still tainted by the racial ancestry and admixture with the Mongol and his simian forebears: “We may recognize this group without prejudice to theory in respect of its origins” (p. 16).

Crookshank dutifully admitted that several medical experts have maligned his racial theories as “superficial, accidental, and in no wise essential” (p. 25). But he also summoned many academic supporters to gird his own speculations, including this contemporary example:

Sera has asserted certain homologies between the Mongolian races and the Orangs to be so ‘perfect’ as to warrant us in affirming between these *il piú stretto legame filetico*.¹⁰³ Now the characters that are homologous for the Mongolian races and the Orangs are obviously present in our native ‘Mongoloids.’ How then, can they be devoid of significance or merely superficial? (p. 26)



Figure A3-4: Plate XI: The simian origins of the characteristic sitting-postures of Negros (Fig. 1) and Mongols (Fig. 2). Inset: Fig. 1 from Plate XIII: Two Negroes in their natural ‘racial’ sitting-posture.

The middle section of the book, *Descriptive*, is the longest, and the most scientifically and technically demanding for readers, especially for a 1920s, British middle-class audience; who were more likely to have a liberal-arts education, than graduate training in anthropology or anatomy & physiology from a medical school. Like Darwin did for non-humans in his contentious *Origin of Species* (1859), Crookshank presented a blizzard of correlations, scientific-medical observations, persuasive photos, and racial speculation on the anatomical homologies between simians and their paired races; including between the Orangs and the pathological Mongoloids.

Like Madison Grant's use of H. F. Osborn's anthropology to 'prove' his Nordacist racial theories, Crookshank mixed copious amounts of hard empirical science with extensive racial speculation, and weaved an origin story and racial assessment for each of the "Three Faces of Man" that would correlate very well with the Nordacist worldview of Osborn and Grant (See Figure A3-5 below). This deluge of 'scientific evidence' would have been very persuasive for the casual science-buff of the 1920s-1940s, even more-so for the university student reading the revised and amplified edition of 1931. This evidence is only betrayed as "superficial, accidental, and in no wise essential" for to-day's reader, by the great advances in biology (especially medical genetics), that have radically changed our understanding of Down's syndrome and other chromosomal disorders and genetic conditions. But these advances would have to wait for the first few decades after World War II, by which time racial anthropology (and its applied-science cousin, racial-hygiene) had been condemned to the same pseudo-scientific status as 'hardline' eugenics. But at the time of their writing, there is little doubt the Weltanschauung (or cultural worldview) of most readers of *To-day and To-morrow* would have had little cognitive conflict with many of Crookshank's racial assertions and conclusions.



Figure A3-5: Plate XXVI: Two photos of women representing two of the many subdivisions of the Caucasian race (or *HOMO Europaeus*) proposed by Crookshank; with the 'pure Nordic' type the only one to not be infused by simian blood through admixture with other races. (p. 108)

Finally, in the last section of the book, ‘Explicative,’ Crookshank marshaled the young science of genetics to help explain the transmission of Mongoloid traits, and the cause of Mongolian Imbecility.¹⁹⁰ For this, Crookshank used the simple-Mendelian genetics of DeVries and Morgan, who were more popular in American eugenics circles, rather the mathematically complex and statistically imposing Biometrics of fellow British pioneers Francis Galton and Karl Pearson. But there were no Punnett-squares or pedigree charts presented; only a simple narrative of passing on the taint of Mongolism, in the same way American eugenicists had already applied for popular education on the transmission of Feeble-mindedness, criminality and sexual licentiousness. After this, Crookshank firmly asserted his polygenic thesis for the racial origins of the “Three Faces of Man,” and his atavistic theory for the appearance of primitive traits, like Mongolism, as they are inherited in the modern germ-plasm of To-day and To-morrow:

At the end, then, we are driven to declare that Vogt was very nearly right, when he... maintained his twin theses: those of *polygeny* in respect of the human race, and atavism in respect of many imbeciles.¹⁰⁰ As Gobineau said: we have, all round us to-day, representatives of all past and present racial types.³ Most profitably, we may reduce these types to three; Semite, Mongol, and Negro. They are reflected for us in the Chimpanzee, the Orang, and the Gorilla.

And, after all, Langdon-Down’s brilliant observation, that an ethnic classification of imbeciles [exists], still stands. (p. 110, 111)

After all this focus on science and medical explanations, Crookshank returned to the Bible, the world of art, and classic literature to bring his treatise to a close. He cited the Noachian story of Ham, Shem and Japheth, borrowed from Disraeli to interpret the “ape and the angel” in DaVinci’s “great conception” of the Three Faces of Man in his “Louvre version of the Virgin on the Rocks” (Plate XXVIII), and again referenced Dante and Sir Thomas Browne (from the extended quotes on the facing-page after the frontispiece). He finally closed by quoting Carl Jung:

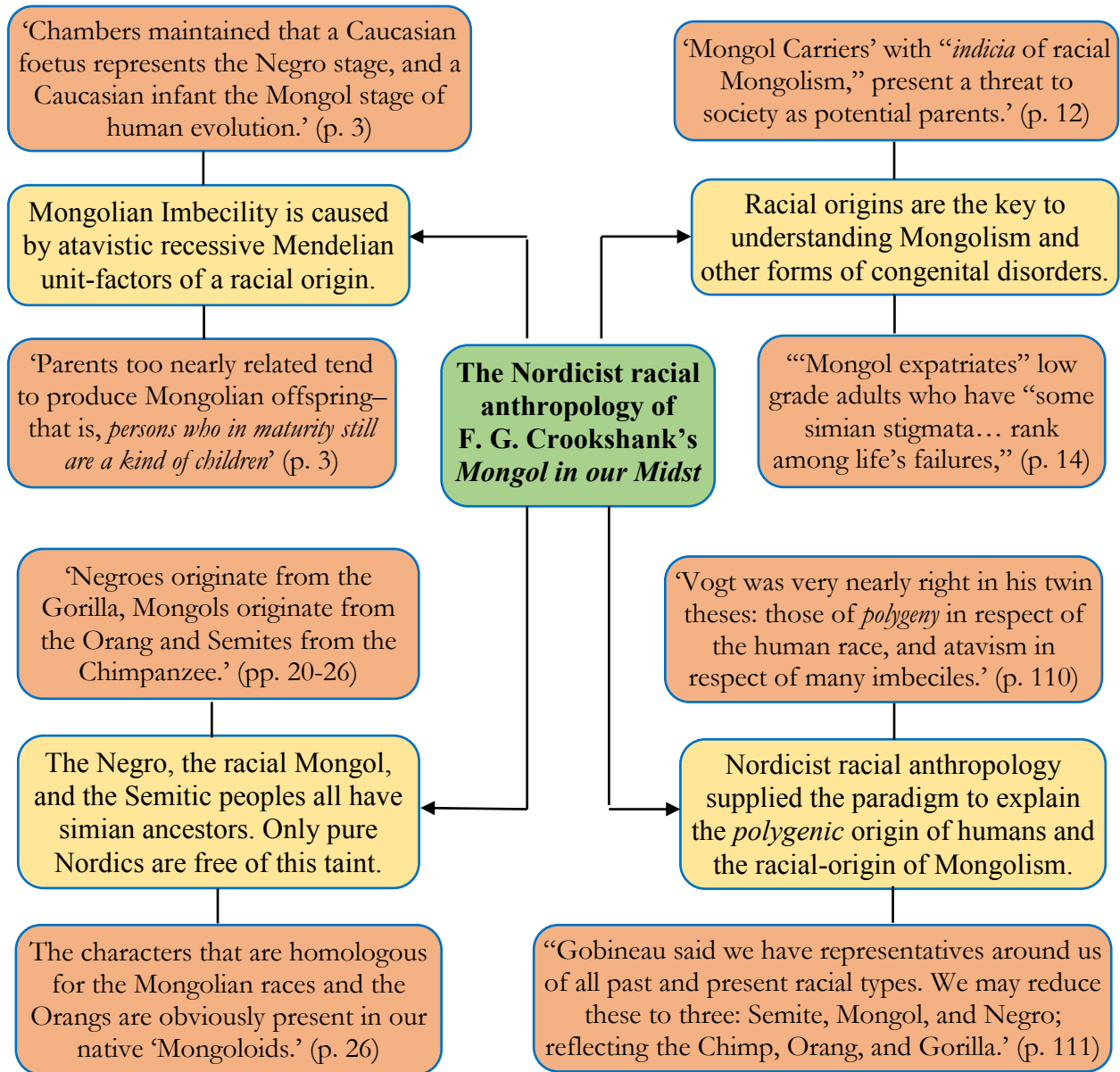
The problem of the Three Faces is then no new one. Dante, da Vinci, Sir Thomas Browne: each solved it in his own fashion. How – if ever – will the question be finally answered by Science?

For as Jung has lately reminded us, whatever we strive to fathom with our intellect alone will end in paradox and relativity, if, indeed it be honest work and not a mere *petitio principii* in the interests of convenience. (p. 113)

¹⁹⁰ See the final segment of the “A Trio of Representative *Eugenics* Education Articles” section in Appendix IV for an American hereditarian (but non-racial) analogue to Crookshank’s racial-hereditarian theory of Mongolism.

A partial meme-map for Crookshank's racial-hereditarian paradigm for the racial cause of Mongolism and the primate-origins for the non-Nordic races is shown below in Figure A3-6:

Partial Meme-map of Crookshank's Nordacist Racial-Hereditarian Paradigm



Color Code: Meme clusters Memes or small clusters (Blue borders - Nordacist paradigm)

Figure A3-6: A partial meme-map showing key memes and clusters in Crookshank's racial anthropology paradigm (memeplex) to explain the origins of 'native-Mongols' and the non-Nordic races of man. Nordacist racial anthropology was one of the last 'scientific' incarnations of *polygeny* (the theory positing separate origins for the main human races), which was extended by Crookshank to support the notion of the pre-human simian origins for the three non-Caucasian races.

Contemporary Reviews, Appraisals, and Racial Facsimiles

Not surprisingly, Crookshank's radical work generated a number of reviews in British and American anthropological and medical journals, as well as some general science periodicals, including the prestigious American journal *Nature*. The review in *Nature* from October 1924 (p. 605), by an anonymous reviewer, is short enough to be included here in its entirety, as shown in Figure 6 below:

The Mongol in our Midst: a Study of Man and his Three Faces. By Dr. F. G. Crookshank. Pp. 128+29 plates. (London: Kegan Paul and Co., Ltd.; New York: E. P. Dutton and Co., 1924.) 2s. 6d. net.

DR. CROOKSHANK argues with much skill in favour of his view that in the not uncommon occurrence of Mongoloid characters in Western Europeans, of which the extreme example is the so-called Mongoloid imbecile, there is something more than a fortuitous resemblance to the racial Mongol. He adduces a large number of homologies between these abnormal cases and the Mongol races, emphasising in particular the peculiar method of sitting with the legs in the horizontal position familiar in the statues of Buddha, which seems natural to the Mongoloid imbecile, and maintains that they point to the atavistic character of this peculiarity.

Mr. H. Peake has argued in favour of the introduction of a Mongoloid strain in Northern Europe in prehistoric times, and it is by no means impossible that some infiltration of Mongol blood may have followed from the racial invasions of Eastern Europe. Dr. Crookshank, however, presses his theory further and seeks to connect the Mongols with the orang, setting them against the group in which he places other races—with dementia præcox as the corresponding form of mental disease—and the chimpanzee and gorilla. It is this part of his theory which has been most strongly criticised, for, as he shows, it involved the adoption of Klaatsch's theory of two distinct parent types, one for orang and Mongols on one hand, and one for gorilla and negro on the other—a theory which has not found favour among anthropologists generally.

Figure A3-7: Review of *Mongol in our Midst*, by anonymous *Nature* reviewer in October 1924 (p. 605).

Judging by this review, and another in the *American Journal of Physical Anthropology*, the biggest critique of Crookshank's hypotheses was his atavistic postulation of a polygenic origin for mankind, harkening back to Samuel G. Morton (1799-1851) and the 'American School of Anthropology' in the middle of the 19th Century (Gould, 1981). By 1924, American anthropology was well on its way to environmentalist reform under the influence of Franz Boas (1858-1942) and his school; after a long power-struggle with the older Nordacist-dominated generation of H. F. Osborn and his strict hereditarian school (Spiro, 2009). Osborn, Madison Grant and other American Nordacists were much more sympathetic to a polygenic view, in which there was little or no common ancestry between their preferred Nordic race, and the 'coloured' races of Africa, Arabia, and Asia. Indeed, some of these old-stock Americans were still arguing that the four major racial groups qualify as separate species, as did the earlier disciples of Samuel Morton, especially in the South. Depending on which side of the ongoing racial-origin debate a particular reviewer was on, they were more or less sympathetic to Crookshank's atavistic views.

One representative of the post-Nordacist "reform eugenics" (Kevles, 1985) school of thought that reviewed the original version of *The Mongol in our Midst* for the American sociology journal *Social Forces*, is Dr. F. H. Hankins. Hankins went-on to write *The Racial Basis of Civilization: A Critique of the*

Nordic Doctrine (1926), and eventually became the president of the American Sociological Society in 1938. Although he offered muted praise for the initial volumes of the *To-day and To-morrow* series, he left little doubt as to his negative appraisal of Crookshank's outmoded racial ideas. The first and last paragraphs of his review are shown in Figure A3-8 below:

THE MONGOL IN OUR MIDST: A STUDY OF MAN AND HIS THREE FACES. By F. G. Crookshank. New York: E. P. Dutton and Company, 1924, 123 pp. \$1.50.

Another volume in the series begun very auspiciously by Haldane's *Daedalus* and Russell's *Icarus*. Not less unique but less amusing and much less convincing than those unconvincing volumes. It is in many respects, however, of greater interest to the student of racial matters, who has a taste for speculation. The thesis is that there are really three fundamental human types, the white, the yellow and the black, related respectively to the chimpanzee, the orang, and the gorilla. Suggestive of Klaatsch, but going a step further. The aim of the book is to prove the thesis by showing that the best explanation of the occurrence of Mongolian idiocy among European peoples is the intermixture therewith of Mongolian blood. This expresses itself more or less frequently in an atavistic reversion which results in the production of idiots and imbeciles who greatly resemble the orang, and also the Mongolian in physical traits. A vast array of homologies between this type of defective and the orang is deduced, frequently on very slim evidence,

pean? In view of the vast accumulation of both historical and anthropological evidence there can be little doubt of a considerable mixture of round-headed elements in the European stocks. But it takes a strong belief in the inherent superiority of the white man to argue that this intermixture is best evidenced by the occasional occurrence of a particular form of idiocy. Moreover, if Mongolian idiots represent a reversion to very ancient ancestral stock, why are they usually the last child in a numerous family or the first child in a small one, and why are their brothers and sisters as a rule devoid of all suggestion of Mongolism?

As for the author's suggestion of a polygenetic origin of man as against the monogenetic thesis made familiar by Sir Arthur Keith, one must say that the enormous amount of time that has elapsed since human differentiation, whether in one general humanoid stem or in several, has been so great that another century of careful investigation will be necessary to warrant anything like a final opinion.

F. H. HANKINS.

* * *

Figure A3-8: F. H. Hankins' review for *The Mongol in our Midst*, from November 1924, in the American sociological journal *Social Forces* (p. 184). Hankins was a future president of the American Sociological Association, and went on to write a book-length critique of Nordicist theory, in 1926. Dr. Hankins also contributed pieces to the American Eugenics Society's official journal: *Eugenics: A Journal of Racial Betterment* (1928-1931) – see Chapter IV and Appendix IV for more on the journal and Hankins.

The publication of Crookshank's greatly expanded third edition of *The Mongol in our Midst* (1931), also by Kegan Paul, was fodder for a nearly two-page review in the October 1931 issue of the *Eugenics Review* (pp. 251-253). Dr. W. Langdon Brown takes exception to Crookshank's frequent biblical allusions, especially the references to Genesis, but seems quite sympathetic with Crookshank's proposed racial explanations for Mongolian imbecility, the possibility of simian heritages of certain races, and even his subject's polygenic propensities. See the first and last portions of Brown's extended review in Figure A3-9 on the following page:

Crookshank, F. G., M.D., F.R.C.P. *The Mongol in Our Midst* (third edition). London. 1931. Kegan Paul. Pp. xiii + 539. Price 21s.

EVER since Adam and Eve were exiled from the Garden of Eden mankind has been striving to return thither, not only in phantasy, but in search of its origins. Only thus, it seems to us, can one explain the persistent belief in the monogenetic origin of men. For on the face of it, were we not still held in thrall by the book of Genesis, we should realize that it is most unlikely that man sprang at one particular moment from simian ancestry. The extraordinary persistence of certain racial types, century after century, in spite of repeated minglings of blood, surely suggests an extremely ancient origin for such types. Even prehistoric man showed similar differences. The orthodox anthropological view is here again coloured by the book of Genesis with its story of the sons of Noah; and the separation into three great divisions of white, yellow, and black races is regarded as coming from an already established single race of men. But has not the time arrived to reconsider how far all this is due to the tradition of the Garden of Eden and of the Flood? Thus, for instance, it has been urged of late with considerable force that the existence of the four different types of blood, now clearly recognized by physiologists and clinicians, types some of which are quite incompatible with others, points to different origins for such bloods. It is well known that if a man be transfused with blood from another individual whose blood is incompatible with his, dire results follow. Surely this striking fact is more readily explained by a polygenetic origin for the races of mankind than in any other way.

Two things emerge from the dust and heat of controversy. One seems clearly proved, i.e. that the Mongolian idiot is an atavistic betrayal of Mongolian ancestry, and implies much more than a mere superficial resemblance. The other, of deeper import, may still be disputed, though we would agree with the writer in the *Encyclopædia Britannica* who says that, "the hypothesis of development admits of the argument, that several simian species may have culminated in several races of man." To us the Mongolian idiot is an outstanding illustration of Dr. A. C. Haddon's remark, "In the life of the cultured European from his earliest infancy do we find milestones that mark the rate and extent of his progress, and all along this weary road, which it has taken mankind tens of thousands of years to traverse, do we find the tired ones—the laggards in the race of life—who mutely indicate, if we have but discrimination enough to read it, a record of the painful but glorious ascent from the brute to the human."

We are assured that there are great difficulties in the way of accepting Dr. Crookshank's view. But are there not also great difficulties in the way of the more orthodox views? Can all the mass of evidence that the author has accumulated be lightly brushed aside? We confess that to us it seems to demand serious consideration. Are we really satisfied that the monophyletic origin of man is proven?

W. LANGDON BROWN.

Figure A3-9: First and last paragraphs of an extended review of Crookshank's expanded 3rd edition, in the October 1931 issue of *The Eugenics Review* (p. 251, 253).

In another section of his review, Brown urged a revised booklet-length version of the original: "for the benefit of others than anthropological specialists. To the general reader the brevity and clarity of its original form will perhaps carry more conviction" (p. 252). By then, however, the *To-day and Tomorrow* series was struggling financially in a competitive and rather limited market, along with other rival series for popular science education and self-improvement, especially at the higher-end of the market in terms of quality and the caliber of the scientific or professional credentials of the authors (Bowler, 2009).

In future volumes, Crookshank's *Mongol* (1924) was only ever cited by one other series protégé: R. C. Macfie's *Metanthropos* (1928 - also reviewed in this appendix). The ultimate series treatment of 'race from an anthropological standpoint' *Ethnos, or the Problem of Race* (1931), by the British 'Dean of anthropology,' Sir Arthur Keith, did not mention or cite Crookshank's theories or *Mongol* (see the review in this appendix for the 'reform anthropology' of T. H. Huxley, as interpreted by Keith).

Contemporaneously, by the time of Brown's review of the expanded *Mongol in our Midst* (1931), the Nordacist strain of anthropology and racial eugenics was in decline in both America and Britain, and would be further eroded as the Great Depression continued to bite, this decline accelerated when dark clouds of war again loomed on the horizon. At the same time, the popularity of racial eugenics and racial-hygiene was on the rise in Germany, first in the waning years of the Weimar Republic, but especially with the ascendancy of the Nazis to power in 1933. From that point, eugenics and especially race-hygiene, including the ruthless elimination of Mongolian idiots and imbeciles, were elevated to the status of State Sciences; complete with dedicated advanced research institutes under the prestigious banner of the elite Kaiser Wilhelm Institutes that had so ardently aided Imperial Germany in World War I in an industrial-scientific-technological Total War between Monarchist Empires (Kohlman, 2015). With that secular blessing and fervent bureaucratic support, a new generation of upwardly mobile, racially conscious Germans were eventually exposed to *ersatz* popular eugenics education literature that was much more crude and racially-motivated than Crookshank's books.

Indeed, it is revelatory that the British *Eugenics Review* article for *Mongol in our Midst* was flanked on one side by a review for an English translation of *Human Heredity* (1931) by Doctors Erwin Baur, Eugen Fischer, and Fritz Lenz; all of whom were central to Nazi eugenics and race-hygiene. And on the other side, there was a glowing review written by Norwegian eugenicist and race-hygienist Dr Jon Alfred Mjøen for a 1931 reprint of Swedish "race-biologist" Herman Lundborg's *Die Rassenmischung beim Menschen* (Race-mixing in Man). Mjøen closed his review with poetic praise for the clear warning provided, and he acknowledged a "great debt to [Lundborg] for his courageous campaign to preserve the Nordic race from race-mixing and destruction" (p. 254). Thus, the main ideological axis for Nordacist racial anthropology, eugenics and their popular and professional education memetic-vectors shifted to North-west Continental Europe, and soon provided expert scientific and technological guidance for a new, racial Total War between diametrically-opposed political ideologies of an entirely different pedigree.¹⁹¹

¹⁹¹ See the review of Dr. W. R. Brain's *Galatea, or the Future of Darwinism* elsewhere in this appendix for a preview of the contemporaneous neo-Lamarckian revival in Stalin's USSR and the consequent purge of western genetics and eugenics as part of Stalin's 'Science Wars' (Pollock, 2006).

Dysgenic Degeneration and the Dystopia of Modernity in F. C. S. Schiller's *Tantalus, or the Future of Man from the To-day and To-morrow Series*

Tantalus, or the Future of Man (1924) was the first contribution to the *To-day and To-morrow* series by the renowned philosopher, literary critic and prolific author, F. C. S. Schiller (1864 – 1937). As might be expected from the title, it explicitly references eugenics, and advocates for State institutions and policies to correct the cumulative effects of racial degeneration in Britain to reverse the dysgenic societal trends resulting from the “differential fertility” of the inferior classes and huddled-masses. *Tantalus* explicitly exudes the class-based and hereditarian bias of British ‘mainline eugenics,’ although it has fewer Nordicist overtones compared to earlier works by American eugenicists, such as C. B. Davenport (1911) or Madison Grant (1916). See the title-page and list of Schiller’s previous works, plus his later series addition in Figure A3-10, below:

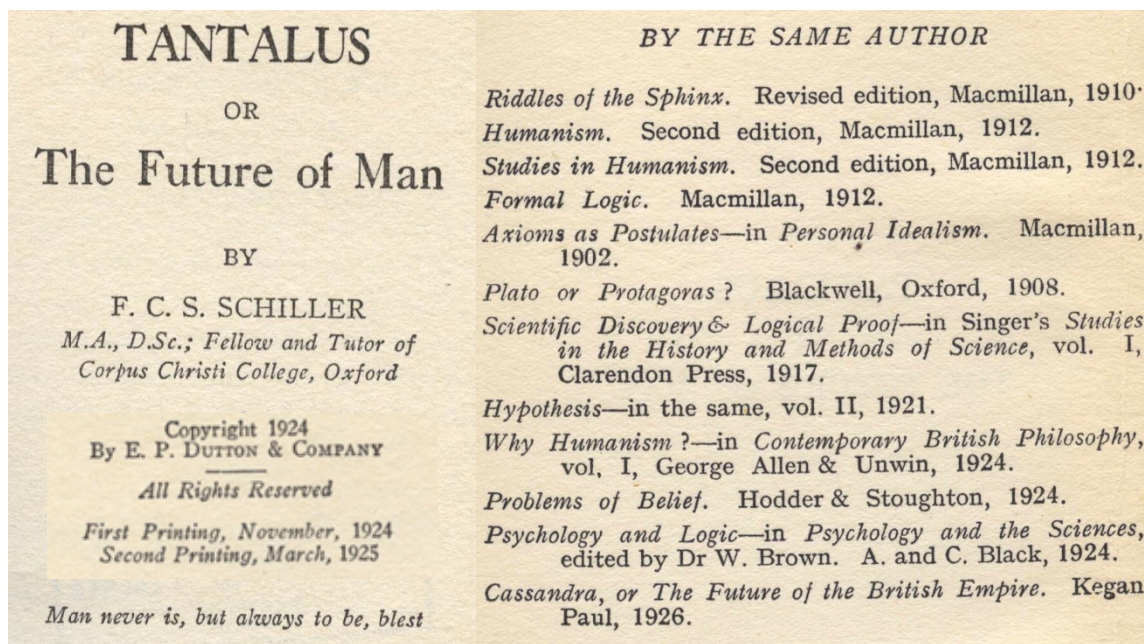


Figure A3-10: *Tantalus* title-page showing Schiller’s credentials, plus a partial listing of his previous full-length literary works and his later contribution to the *To-day and To-morrow* series, *Cassandra* (1926).

Schiller was born in Holstein (Germany), but was raised in Switzerland and later educated at Rugby (a prestigious English boarding school) and at Balliol College (at Oxford University) where he later taught for many years. He achieved first-class honours in a classical humanities education (*Literae Humaniores*) and pursued philosophy in his graduate studies, notably the pragmatism of William James; but he referred to himself as a humanist. He was one of the founding members of the British *Eugenics Education Society*, and was a prolific reviewer of eugenic-themed works for their *Eugenics Review*.

At the time of its publication, Schiller was arguably the most renowned author for the series, though he would eventually be eclipsed in fame by Haldane, Bertrand Russell, Sir Arthur Keith, and J. D. Bernal. *Tantalus* followed in the footsteps of the early eugenically-intensive titles in the series: J. B. S. Haldane's *Daedalus* (1923), Bertrand Russell's antagonistic response (*Icarus*, 1924), and F. G. Crookshank's *The Mongol in our Midst* (1924 – see separate reviews in Chapter III and this appendix). *Tantalus* is one of the shortest volumes in the series at just 66 pages, only barely exceeding Bertrand Russell's *Icarus* in length. Schiller also penned two full-length follow-up books on eugenics after *Tantalus*, *Eugenics and Politics* (1926), and *Social Decay and Eugenic Reform* (1932).

Because of the direct inspiration provided by Haldane's *Daedalus*, it might be useful and illustrative to begin with the first and last portions of Schiller's review of *Daedalus* in the July 1924 issue of the *Eugenics Review*. The Oxford 'Great' first takes a customary pot-shot at his Cambridge peer, and then rates Haldane's powers of prophecy versus his nearest rivals. See Figure A3-11 below:

Haldane, J. B.S. (*Daedalus, or Science and the Future. A Paper read to the Heretics, Cambridge, on Feb. 4th, 1923. London, Kegan Paul, Trench, Trubner & Co. 1924. Pp. vii, 93. 2s. 6d. net.*

ALTHOUGH this very brilliant lecture professes to have been delivered before a Society of 'Heretics' in a university in which a university teacher can say truly (or at any rate without a blush!) that it is his "whole business to induce people to think," it is an historical fact that it was excogitated soon after Mr. Haldane's return from the wars to an *alma mater* in which no heretics are known to exist, and in which the primary function of the university teacher is to teach that everything worth thinking has been thought of long ago. However those who had the pleasure of hearing Mr. Haldane's paper at any of the various literary Societies which were entertained with it at Oxford, will be delighted that he has published it at last, and proud to think that it was engendered in their midst, though it has no doubt received some 'ectogenetic' incubation in the more nutritious *milieu* of the sister university. (p. 143)

There can be no doubt that *Daedalus* puts Mr. Haldane in the very front rank of our Prophets. In point of success he is not yet on a level with Mr. H. G. Wells (to whom he pays a merited compliment on p. 9), who has already lived to see fulfilled such prophecies as aeroplanes, airships (and their destruction by aeroplanes), tanks, and the holding down of white populations by black conscripts; but in point of plausibility he seems to excel Father Knox, Mr. G. K. Chesterton, and even Mr. Bernard Shaw, whose effort to conceive the Superman produced only such miserable Struldbrugs as his Platonizing Ancients of 31,920 A.D. (p. 145)

Figure A3-11: First and last sections of Schiller's review of *Daedalus* from the July 1924 *Eugenics Review*, where Schiller was a most prolific contributor and reviewer of all-things eugenic. Schiller narrated Haldane's bold predictions of disembodied ovaries and "ectogenetic babies" with wry amusement, but hoped Haldane "will vote with the eugenicists" in the event that his prophecy remains unfulfilled by 1951. In fact, by then Haldane had become an ardent socialist and abandoned eugenics. (p. 143, 145)

Tantalus Symbolized the Dystopian Degeneration of Modern Man

Schiller began the short preface of *Tantalus* with the prediction that “superficial critics who do not like the argument of his essay will accuse it of pessimism” (p. v). But he then argued that his treatment was actually less pessimistic than either *Daedalus* or *Icarus*: “because it makes it very plain that the evils which threaten the future of mankind are in no case unavoidable” (p. v), even without the miraculous interventions of either ectogenesis (Haldane), or a global revolution to form a socialistic one-world government (Russell). In this prediction he was absolutely correct, as will be confirmed by the reaction of at least one contemporary critic, excerpted at the end of this review.

Next, Schiller went to extraordinary lengths to summon the oracle of Tantalus, by “camping-out” on his newly discovered tomb in Phrygia, to “incubate” the spirit of his mythological muse.¹⁹² He narrated his dream-encounter with Tantalus at the “Tree of Knowledge” on the barren “Plain of Forgetfulness” (pp. 1-11). This allegorical prologue served to set the tone for *Tantalus*, using the tragedy of this bestial but semi-divine ‘victim’ of the capriciousness and vindictiveness of the gods, to bridge the gap between this classical dysgenic myth and the ‘pragmatic humanism’ of Schiller’s modernistic musings on the deterioration of man by his own hand. Of all the authors of *To-day and Tomorrow*, no other made such an effort to connect the mythological character in the title with the modern subject matter of their contribution to the series. Although he left Tantalus’ ultimate fate to the imagination of the reader, he offered some hope that our anti-hero would eventually overcome his grim fate and triumph through reason and pragmatism, to achieve a sort of happiness, or at least some relief from the worst slings and arrows of his eternal incarceration in Tartarus.

Chapter I began by echoing the general European ennui of the ‘Age of Anxiety,’ following on the heels of World War I, the Spanish-flu, the Bolshevik Revolution, and other assorted evils that cumulatively posed a dire threat to the Progressive-era’s faith in perpetual progress:

Our best prophets are growing very anxious about our future. They are afraid we are getting to know too much, and are likely to use our knowledge to commit suicide, or rather, mutual murder, after the fashion of the Kilkenny cats.¹⁹³ (p. 12)

¹⁹² Tantalus was a son of Zeus and the nymph Plouto. He angered Zeus by stealing and lying (and other barbaric acts), and was sentenced to eternal punishment and temptation in Tartarus. His name became the inspiration for *tantalize*.

¹⁹³ My library copy of *Tantalus* included a helpful marginal note by a thoughtful prior reader, which I quote in a poor facsimile of the cursive original: “In Kilkenny it was considered sport to tie the tails of two cats together & then drape them over a clothes line & watch the vicious mutual murder.” (From the University of Alberta, Calgary - Call# HM 101 S35)

Schiller brushed-off this reactionary pessimism, by asserting that the “human race has always known enough to wreck itself...yet, either by chance or providence, it has always known also to avoid destruction” (p. 12). But he offered no surety that this would continue in a society “debauched by a long regime of flattery, propaganda, and subterfuge;” though he offered the abiding hope that it will “use its knowledge properly to avoid the dangers that threaten it” (p. 13).

Curiously, given his cautious optimism, Schiller then threw cold-water on the myth of perpetual progress from a biological-racial standpoint, claiming that “man has ceased to be a progressive species long-ago” (p. 14). Like the ‘Dean’ of American anthropology, Henry F. Osborn, in his *Men of the old Stone-age* (1915), and echoed in his protégé Madison Grant’s *Passing of the Great Race* (1916), Schiller rated the “Cro-Magnon people of the Aurignacian age” as the apex of human physical development, which had not been equaled or exceeded since. This same thesis, based on 19th Century Nordacist racial anthropology in Continental Europe, was to be repeated by Schiller’s series-colleague Sir Arthur Keith in *Ethnos, or the Future of the Race* (1931 – see separate review in this appendix). Keith was a huge influence on Osborn, Grant and the American Nordacist-school at Osborn’s American Museum of Natural History in New York, site of the Second International Eugenics Congress in 1921.¹⁹⁴

Schiller next recounted the conventional hardline-eugenics narrative for the racial degeneration of mankind from the cumulative effects of civilization, agricultural revolutions, organized religions and charities, and the great technological advances of modernity; with the result that “social selection and the survival of societies modify (and often defeat), the working of natural selection” (p. 15). He admitted the environmental advantages of this “contra-selection” give to the growing social-problem-groups, but argued this misplaced charity had only accelerated their demographic influence and the cumulative dysgenic effects. He asserted that in light of the continued racial short-sightedness in today’s “controllers of our destinies,” it is expecting too much of the “tribal chiefs of early men to have been wise and provident enough to see to it that their social institutions were eugenical in their effects” (p. 18). He pronounced the common ignorance of this widespread racial degeneration in modern civilization to be “certainly the greatest mystery in the history of Man” (p. 16).

Over the course of several short chapters, Schiller detailed how the material progress of Western culture, with its ever-expanding knowledge and novel technological developments, had heretofore produced such great effects that they largely overpowered the regressive effects of rampant racial deterioration. But, more recently, these dysgenic social forces had accumulated to finally present a serious challenge to to-day’s civilization and an existential threat to future progress. He also devoted

¹⁹⁴ The American Museum of Natural History in New York City was immortalized in the movie “A Night at the Museum” (2006), starring Ben Stiller as a lowly security guard and Robin Williams as Theodore Roosevelt.

eight pages to a diatribe against the unintended effects of formal education, culminating with a volley of darts targeted against the twin paragons of British higher education: Cambridge (home of Haldane and Russell) and Oxford (Schiller's *alma mater* and current posting). Schiller lamented that this traditional Classical education cultivated "a backward-looking bias in its alumni" who are "indelibly imbued with the conviction that in matters of morals and politics nothing of importance has been discovered or said since Plato and Aristotle, and that nothing else matters" (p. 28).

In Chapter IV, Schiller warned that "there is no law of progress," and the lesson of history was that progress had to be fought for step-by-step, and has "ceased whenever effort ceased, or was switched off into other directions" (p. 29, 30). Modernity's boast of intrinsic superiority was hollow compared to our palæolithic ancestors, or even as recently as the Greeks of Classical times and the Viking settlers of Iceland, and he proclaimed that the bulk of "humanity is still Yahoo-manity" (p. 31). This was the first instance of a recurring allusion to Jonathon Swift's (*Gulliver's Travels*, 1726) mythical beast-men, used as an allegory for the materialistic and ignorant masses who bury their heads looking for Swift's "pretty stones" in the mud of racial deterioration and social degeneracy that produced such "crude, brutish or obscenely coarse" persons (Collins English Dictionary). He boldly declared that "civilization is not even skin deep; it does not go deeper than the clothes" (p. 33). This critical theme was continued in the next chapter, where he added the additional complication of man's inability to adequately adapt to rapidly accelerating mental shocks and scientific-technological changes, while still retaining the intrinsic instincts and morality of the savage; in which war extinct ceased to be eugenic force, but became a deadly danger to all humanity. This same memplex of stalled biological progress and persistent regressive tendencies has been repeated so often in post-Modern science fiction (from Asimov and Bradbury to Star Trek and beyond), as to become a clichéd trope.

Schiller began Chapter VI by laying-out "the third and most sinister fact" to "our tale of woe" (p. 36). He itemized and clarified the dysgenic effects of civilization that the applied science of eugenics had recently discovered and made plain, in the hope that its remedies might come in time to save us from our deceptive pseudo-progress:

Civilization, as at present constituted, is very definitely a deteriorating agency, conducing to the degeneration of mankind... It is quite indirect, unintended, and fortuitous, but cumulative, and in the long run has probably been the chief cause in the decay of States and civilizations, as well as an important factor in the arrest of biological development which we have had to recognize. (p. 36, 37)

He blamed the “sociological fact” of modern dysgenic differential birth-rates as the root cause for this rampant degeneration. This more recent development reversed the traditional (eugenic) differential of antiquity that favoured the fit, provident and efficient classes, for the modern world’s propensity to promote the unfit, improvident and inefficient hordes who populated the urban slums and industrial towns of today. The net result was that “society is always dying off at the top and proliferating at the bottom of the social pyramid” (p. 38). He broke-down the “disastrous consequences of this sort of social organization” into a three-stage process for producing “racial extinction” or ‘race-suicide’ as it was first promoted in America by sociologist E.A. Ross and globally evangelized by Teddy Roosevelt and others (Spiro, 2009). Schiller eulogized this racial folly as being “exactly as though a dairyman should [invent] an apparatus for separating the cream from the milk”... only “to skim it off, and throw it away!” (p. 39). Even worse, unlike pre-Modern times where racial suicide extirpated only the “aristocracy in the highest social strata; it has spread to the whole of the professional and middle-classes, and to most classes of skilled labour” (p. 41). Thus, with widespread charity or State welfare to support the lower classes, and the antagonistic effects of birth-control and delayed marriage that are now only practiced by the better classes:

[N]one of the desirable elements in the nation are doing their bit to keep up the population...its continued growth is mainly due to the unrestrained breeding of the casual labourers and the feeble-minded. (p. 42)

Schiller presaged Dr. C.P. Blacker’s *To-day and To-morrow* effort, *Birth Control and the State* (1926), by lamenting the short-sighted, faux-moralistic folly of British politicians and clerics for repressing birth-control education and availability to the huddled masses. He also denounced the collusion of those fitter *should-be* ‘mothers of tomorrow,’ who opted-out of prolific motherhood due to modern social diversions and popular entertainment distractions. To these roots of dysgenic evil that plagued modernity, Schiller added a four-item list of additional ‘cacogenic’ advances:

- (1) The advance of medicine and hygiene has enormously diminished selective mortality in all classes and improved the chances for survival of weaklings to leave descendants. (p. 43)
- (2) The advance of philanthropy preserves them, especially in the lower-classes, where formerly the mortality was largely selective... (p. 44)
- (3) Modern obstetrics saves the lives of thousands of women, whose physique is such that in former times they would inevitably have died in childbirth (p. 44). (This theme was greatly expanded upon in A.M. Ludovici’s, *Lysistrata, or Woman’s Future and the Future Woman*, 1925)
- (4) Lastly, the bastardizing, which used to formerly provide for a considerable infusion of the blood of the upper classes into the lower has now practically ceased. (p. 45)

Chapter VII was a two-page digest of the book so-far, warning of the inevitable result should British society not act with force and conviction, by embracing eugenic reforms over the status quo:

Our civilization carries within it the seeds of its own decay and destruction, and it does not require high prophetic gifts to predict the future of a race which goes the way marked out for it by such perversely suicidal institutions. It cannot improve, but must degenerate, and the only question would seem to be whether the decadence of Man will leave him viable as a biological species. At present it looks very much as though his blind leaders would lead their blinder followers from catastrophe to catastrophe, through imperialist world-wars to class-wars and to race-wars: but even if, by some miraculous rally of human intelligence, these convulsions should be averted, the prospect will not really be improved. The violent destruction of the human race by war will only be more *dramatic*: it will not be more *fatal* than its gradual decay as its arts and sciences slowly fossilize, or peter out, in an overwhelming flood of feeble-mindedness. (p. 46, 47)

The last three chapters of *Tantalus* set-out Schiller's eugenic alternative to racial doom and the extinction of excellence. He first suggested as a faux-option, the vigorous moral reformation (by Christianizing) of the 'palæolithic Yahoo' in an attempt to prevent the wars and global conflicts plaguing modern man. While he admitted the meek had a historical tendency to inherit the earth "after their lords and masters have killed each-other off" (p. 49); he also pointed to the mischief they would create if not supervised by their eugenic superiors. He observed with resignation how the Yahoo had resisted periodic inoculations of Christian ethics for two millennia, with no signs that the process would be improved, and ultimately dismissed the scheme with the assertion that "all the Churches of Christendom" would "bitterly oppose" putting true Christian principles into practice (p. 50). He then turned to his real proposal, "that of the eugenical reform and reconstruction of our social organization," which he hailed as a "safer, though slower" means of racial improvement (p. 50).

In supporting this eugenic solution to the evils of mankind, Schiller claimed to be "much more hopeful" than either Haldane or Bertrand Russell, and offered this critique of their visions for the Future of Man:

Mr. Haldane despises eugenics, because he is looking for the more spectacular advent of the 'ectogenetic baby' to be the Saviour of mankind. But he might not arrive, or be seriously delayed in transmission, or fail to come up to Mr. Haldane's expectations; and, meanwhile, we cannot afford to wait. (p. 51)

Mr. Russell distrusts eugenics, because he fears that any eugenical scheme put into practice will be 'nobbled' by our present ruling rings, and perverted into an instrument to consolidate their power. He thinks that dissent from dominant beliefs and institutions will be taken as proof of imbecility, and sterilized accordingly, and that the result would merely be to spread over all the world the hopeless uniformity and commonplaceness of the ideals and practice of the American business man, as depicted by Sinclair Lewis. (p. 51, 52)

Schiller conceded Russell's skepticism for eugenics, when it was forced upon society from above, in small doses, "as under the existing acts to check the spread of feeble-mindedness" (p. 52). He discounted this method as being impracticable, and incapable of generating the necessary social momentum to carry through any radical reform. Instead, to be effective, eugenics reform "would have to be backed by a powerful, enthusiastic, and intelligent public sentiment" (p. 53). This eugenic fervor would have to be inculcated through thorough education and indoctrination of the public, who would have to be taught to fully understand the failings of the conventional social order, and the fatuity of pursuing other avenues for relief, such as those fantastic solutions prophesied by Haldane and Russell. He admitted this process of education and social evolution, from the Yahoo to the Superman of Nietzsche, would be slow and gradual; requiring careful attention to details and proceeding in a step-wise manner, making constant adjustments in response to challenges from new obstacles as they arise. He confessed this slow rational progression may seem "unheroic, but it has the great advantage that is unlikely to go irretrievably wrong" (p. 54).

This tentative approach would allow for the wise negotiation of "traps and possibilities of going astray," so long as there is a willingness "to retrace our steps when we have made a false one" (p. 55). Schiller outlined the required changes in the social temper and the philosophical adjustments that would have to be made for his eugenics program to meet his goals:

The social temper will become far more intelligent and reasonable than it has been hitherto. It will be slow to dogmatize, and will regard the *toleration* of differences of opinion as among the cardinal principles of a sanely progressive social order...we can no longer assume, with Plato and the other Utopians, that *perfection* may be postulated, provision has always to be made for the *improvement* of the social order. (p. 55)

Hence the social order must be *plastic*, and must never be allowed to grow rigid. There must always be room in it for experiments that have a reasonable prospect of turning out to be improvements. For progress will depend on the timely adoption of such novelties. (p. 56)

This slow evolutionary change, establishing a new social equilibrium by incremental stages of improvement, was also to be advocated by American H. S. Jennings in his *Prometheus, or Biology and the Advancement of Man* (1925). However, Jennings' proposal was for a wide-spread eugenics program of improved environmental conditions, and his limited enthusiasm for eugenics was confined to the very bottom of the eugenic barrel: the obviously feeble-minded, chronic recidivists and the clearly insane.

Schiller's experimental procedure included scientific study to find the best obtainable types, both of men and the society in which he lived; but like Galton (1904) he asserted we already knew enough to begin eliminating the feeble-minded, the sickly and the insane, and to encourage the multiplication of the intelligent, healthy and energetic types. His scheme entailed "experimentation in a variety of

directions, with ‘control experiments’ and a modicum of mistakes,” but these mistakes would be minimized with a careful, tentative approach that was results-based, rather than dogmatic:

It is really one of the great advantages of eugenics that it cannot proceed upon any cut-and-dried scheme, but will have to be guided by the results of experiment and the fruits of experience, each of which will have to be followed and discussed by an intensely interested public. For the difficulties of eugenics are all difficulties of detail, and intelligent attention to detail may overcome them all. Thus the dysgenical working of civilized society, which has come about unintentionally through the unfortunate convergence of a number of tendencies, may be altered similarly, by changing the incidence of social forces. (p. 59)

After reiterating the possibilities for slow individual and racial improvements by simultaneous negative and positive eugenic thrusts, Schiller turned briefly to respond to the potential for racial improvement through pharmacology, prophesied by both Haldane and Russell in their prior series contributions. He ruled that the slim likelihood of improvement through new drugs and hormonal adjustments was outweighed by the greater dysgenic dangers of new vices, citing the example of cocaine, which was of “so fascinating a character as to distract the whole police force from their proper function of repressing crime” (p. 61).

Schiller granted the possibility of progress through the application of psychology, if it could ever gain a proper scientific footing, and progressed from its “deplorably backward state” as a playground “for metaphysical excursions and the arbitrary pedantries of classificatory systematists” (p. 62). This echoed the great enthusiasm for empirical psychology and mental testing in America during and after World War I, as patriotically applied by such APA luminaries as Henry Goddard, Lewis Terman, E.L. Thorndike, Robert Yerkes and Carl Brigham (Brigham, 1923).

Schiller’s final denouement in Chapter X, consisted of a one-page-long paragraph that brought the reader back full-circle to his initial dream-encounter with Tantalus; less offering explicit hope for the future, than dissuading the pessimistic assumption of inevitable doom for mankind:

I have endeavoured in this very summary sketch to show that the doom of Tantalus is by no means unconditional, and that he can save himself if he chooses, and that by no superhuman effort, but merely by recognizing facts that are right before his nose and well within his comprehension, and by a little clear thinking upon their import. But I would not presume to predict that he will save himself: history affords no unambiguous guide. It seems to show that something worse and something better than what actually happens is always conceivable, and that neither our hopes nor our fears are ever fully realized. If so, poor Tantalus, hoping against hope, fearing against reason, may muddle along for a good while yet, without repeating either his ancient error of imagining that he could sup with the gods, or his modern folly of using his reason, as Goethe’s Mephistopheles declared, only to become more bestial than any beast! (p. 65, 66)

A partial summative meme-map for Schiller's allegory warning against racial degeneration and the dysgenic dragon's teeth of modernity is shown below in Figure A3-12:

Partial Meme-map of Schiller's Morality Play of Racial Degeneration and Dysgenic Doom

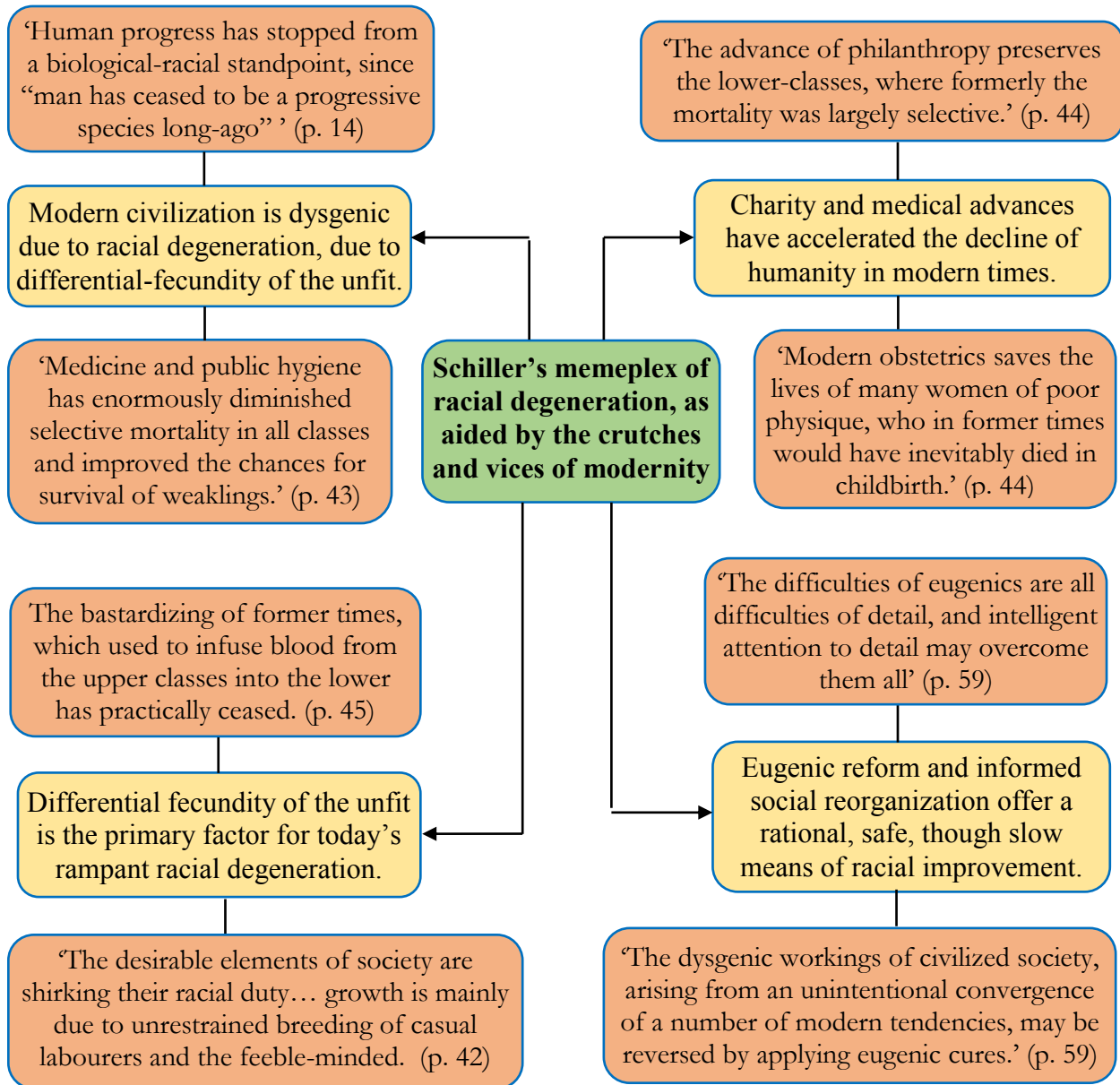


Figure A3-12: Partial meme-map with key memes and clusters in F.C.S. Schiller's hardline eugenics paradigm (memplex). *Tantalus* warned of rampant racial degeneration in modern civilization due to a combination of misguided charity and the unintended effects of modern medicine, unevenly practiced contraception, and the resulting differential-fecundity of the unfit that defied natural selection.

Schiller lived long enough (until 1937) to see a partial realization of his dreams for a radical societal readjustment through the practice of eugenics, in his native Germany under the Nazi regime. It included much experiment, education, and enthusiasm, but was in no way based on tolerance of dissenting opinion, plasticity, or careful adjustment to actual results. Instead it was dogmatic, arbitrary, capricious, industrial and sweeping in its scope. And though it muddled along for a while, even forging a new textbook exemplar for the ‘banality of evil,’ even Goethe’s *Mephistopheles* would likely pronounce the Nazi exemplar and its technocratic administration more “bestial than any beast.”

Contemporary Critical Reviews of *Tantalus*

As with the previous eugenical volumes of the *To-day and To-morrow* series, contemporary critical reviews of *Tantalus* were decidedly mixed in their appraisal of Schiller’s blend of pessimism and cautious hope for eugenic improvement. First, an un-named reviewer made a strong case for Schiller’s abiding pessimism in the September 1924 issue of the *British Medical Journal*. The reviewer traced the pedigree of the series so far, but he took exception to Schiller’s blame of the medical profession for accelerating man’s racial degeneration and its dysgenic contributions to the race-suicide of the better classes of British society. The first and last paragraphs of this review are excerpted in Figure A3-13:

TANTALUS.

MR. HALDANE has become responsible for a small family of little books—his *Daedalus* produced *Icarus*, and the two have begotten *Tantalus*,⁵ by **F. C. S. SCHILLER**, D.Sc., a Fellow of Corpus Christi College, Oxford.

In his preface Dr. Schiller shows himself very anxious not to be taken for a pessimist. He believes the human race is degenerating, the herd is rushing down a steep place, but thinks it may be headed off from the final precipice. “**Man-kind can make a fool of itself, as it always could; if it does, its blood will be on its own head, for it has knowledge enough to avoid the dangers that threaten it, if it will use its knowledge properly.**” He claims therefore to be an optimist. (p. 467)

We are now more than three-fourths of the way through the book and begin to look for the optimism promised in the preface. This, after Christian ethics have been dismissed, we find in eugenics and a more business-like study of psychology. Man can save himself in this way, but the author does not presume to predict that he will. This is rather disappointing. Perhaps the next volume of the series will be entitled “**Sisyphus.**” (p. 468)

Figure A3-13: First and last paragraphs of a review of Schiller’s *Tantalus* in the Sept. 1924 issue of the *British Medical Journal*. Note the reviewer acted as his own prophet for a future title in the series.

In fact, *Sisyphus* would take its place in the series, but not for another 4 years, and when it did, it dealt with the “Limits of Psychology” (Jaeger, 1929). This volume was an introduction to the new discipline of Industrial Psychology, lauding its successes in the factories of Henry Ford in the guise of ‘Taylorism,’ and praising its potential for vocational education and societal improvement through mental readjustment, rather than any hereditary tailoring to meet the needs of industry and society.

The second review considered here, came from *The Eugenics Review* in the July 1926 issue, which coincided with the third impression of *Tantalus*. R. A. Freeman began his review by reassuring readers that the small-size and low page-count should not deceive readers into thinking the book was not worthy of study; indeed he declared that the “propaganda value” of “books, as with men” to “impress upon an apathetic public,” is “inversely proportional to their size” (p. 152). He praised the large, clear type, pleasant format, and tasteful “get-up” before turning to the subject matter of *Tantalus*. Figure A3-14 below excerpts the rest of this decidedly positive review, praising the current appraisals and bold prophecies of Schiller as an oracle for his time:

Small as it is, however, it contains a surprising amount of matter and covers a large extent of ground. The author examines the causes of the early arrest of biological progress in the human race and explains how, notwithstanding the stationary condition of man, himself, the culture produced by him has continued to progress and must still so continue as long as any glimmer of intelligence survives. Incidentally, he delivers one or two home thrusts at some of the distributing agents of that culture, pointing out that progress in culture is by no means secure as to its continuance in the future, since educational systems tend to “become the chief enemies of education and seats of learning the chief obstacles to the growth of knowledge.”

On the stagnant condition of man in a biological sense, Dr. Schiller insists uncompromisingly. Civilization has changed him not at all from the primitive Yahoo of palaeolithic times. It “is not even skin deep; it does not go deeper than the clothes.” As to the future, Dr. Schiller is indeniably pessimistic. It is true that he admits the possibility of a change of collective conduct by which the present racial decay might be arrested and biological progress re-started. But he does not appear hopeful that the possibility will be realised. The conclusion that man “can save himself if he chooses” is qualified by the observation that history holds out little encouragement for us to hope that he will make the choice.

As a contribution to the literature of Eugenics, ‘Tantalus’ should be warmly welcomed. It presents the problems connected with the Future of Man in a very complete outline and in a style which is at once pleasant, vigorous, and lucid.

R. AUSTIN FREEMAN.

Figure A3-14: A sympathetic review preaching to the eugenic choir in the July 1926 issue of the *Eugenics Review* (p. 152), praising Schiller’s mighty little volume of eugenics propaganda to impress an apathetic British public. This was a time when the word propaganda still had a decidedly positive connotation for progressives, so long as the message reinforced their worldview or operant paradigm.

Schiller's treatise on the dire need for eugenics *To-day* and the possibilities for progress *To-morrow*, was to that point in the series the most conventional treatment of the subject. It was soon to be followed by more fleshed-out and specialized volumes from A. M. Ludovici: *Lysistrata, or Woman's Future and the Future Woman* (1925), C. P. Blacker: *Birth Control and the State* (1926), Dr. Norman Haire: *Hymen, or the Future of Marriage* (1928), and Sir Arthur Keith: *Ethnos, or the Problem of Race considered from an Anthropological Standpoint* (1931); among others. These later volumes would expand upon the themes sketched by Schiller and they continued to promote the promise of eugenics in combatting race-suicide, overpopulation of the unfit and rampant racial degeneration, as well as propagandizing other eugenical hot-topics to an educated and obviously interested, not apathetic, public.

The series also soon spawned the first real resistance to mainline eugenics (or at least a reform of hardline eugenics) from the scientific community, in the form of American biologist H. S. Jennings *Prometheus, or Biology and the Advancement of Man* (1925), which is probably as close to a series-partner to *Tantalus* as any other title. It is worth noting, however, that none of these later volumes equaled or exceeded the popularity of Haldane's *Daedalus* or Russell's *Icarus*. It would seem that the British public's appetite for eugenic fervor was slowly declining, along with their American cousins across the pond; especially once the Great Depression again threatened the progress that they had fought so hard to preserve after the massive dislocation of the Great War.

It would fall to Schiller's German cousins on the Continent to take eugenics and racial hygiene to the higher-level that he had imagined his own British Empire should strive for. But by the time Britain had defeated Germany and Imperial Japan (who both placed a societal premium on race-hygiene), Imperial Britain was soon reduced to intermediate Power status, and British eugenics had fizzled to a reformed academic rump.

J. B. S. Haldane's *Callinicus, a Defence of Chemical Warfare* in the *To-day and To-morrow* Series

The initial contribution by British biologist and science popularizer J. B. S. Haldane (1892-1964), *Daedalus, or Science and the Future* (1923 – see review in Chapter III) to the *To-day and To-morrow* series of popular books began a decade-long tradition of describing the current status of some aspect(s) of science, technology and society, and forecasting the future. *Callinicus* (meaning “he who conquers in a noble manner”) was Haldane’s 1925 follow-up contribution to the series, originally a lecture delivered in Mürren (a mountain resort town in Switzerland) in 1924, given on behalf of Sir Henry Lunn (a famous British humanitarian, ecumenical religious leader and founder of the Alpine Ski Club, a travel-club for Gentleman skiers and mountaineers that grew into a successful travel agency). *Callinicus* is something of a one-off in the *To-day and To-morrow* series, in that it does not reference any other work in the series. It could be considered a companion piece to *Paris, or the Future of War* (1925) by pioneering British armoured-warfare theorist Captain B. H. Liddell Hart, who greatly influenced German Blitzkrieg theorists like Heinz Guderian and practitioners like Erwin Rommel. See the title page and selected reviews for Haldane’s contributions in Figure A3-15, below.

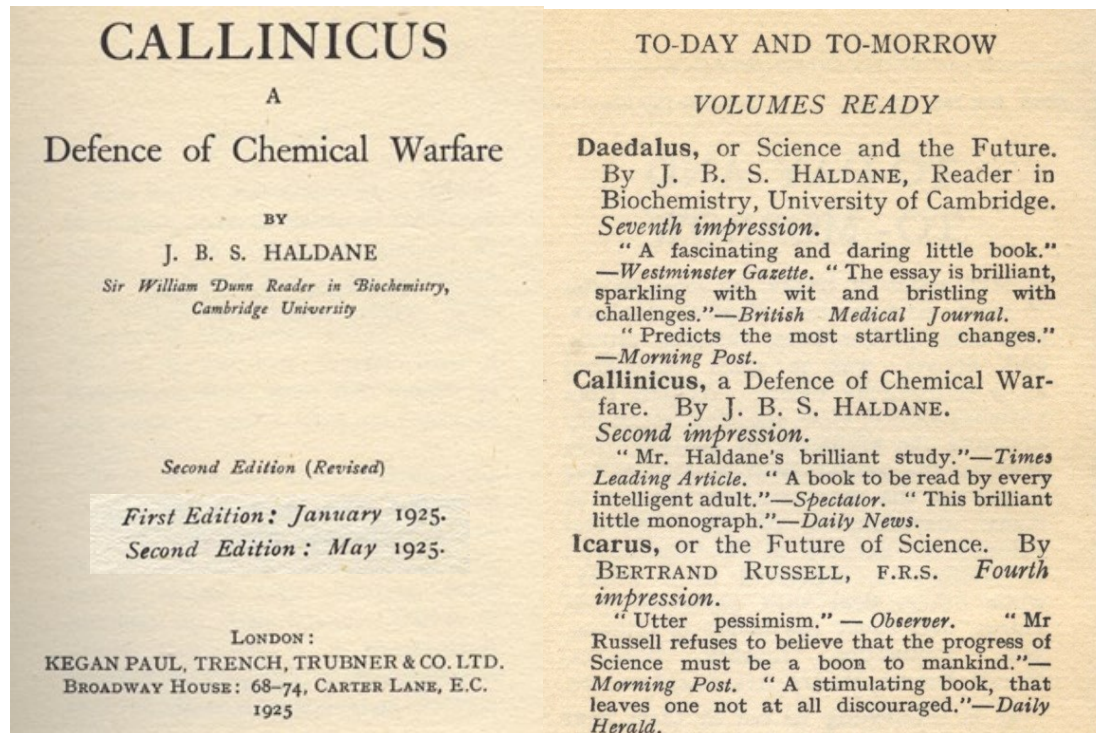


Figure A3-15: Title page for *Callinicus* – along with clips of critical reviews for Haldane’s contributions to the *To-day and To-morrow* series, as well as Bertrand Russell’s initial response to *Daedalus*, used in the promotional materials of the series.

Haldane was commissioned as a second-lieutenant in August 1914, as an infantry officer. After the introduction of poison gas warfare by the German's (under the direction of Fritz Haber, director of the Kaiser Wilhelm Institute for Physical Chemistry in Berlin-Dahlem)¹⁹⁵ in April 1915, Haldane was remobilized for Britain's own chemical warfare program, and was involved in testing and advising the army on both offensive poison gas weapons and defensive countermeasures, including gas masks.

Like his German or American scientific counterparts in World War I, such as Nobel laureate Fritz Haber (Kohlman, 2015a), or American scientist-turned-chemical-warrior James Bryan Conant (Kohlman, 2015b), Haldane became an ardent convert to the cause of chemical warfare. In the early post-war years, Haldane and his American or German contemporaries, became vocal advocates for this 'more humane' and scientific form of conflict. Haldane decried the reactionary sentimentalism against gas warfare, largely blaming British anti-German propaganda and wartime media sensationalism for the public's hysterical reaction to the 'Chemist's War' [See Fritz Haber's son, historian Ludwig Haber's *The Poisonous Cloud: Chemical Warfare in the First World War* (1986), and John Vilenky's *Dew of Death: The Story of Lewisite, America's World War I Weapon of Mass Destruction* (2005)].

As with many other volumes in the series (but unlike *Daedalus*), it does not overtly mention eugenics, but it deals with a perennial eugenic hot-topic: the role of warfare in society and of science and technology in warfare, and their cumulative impact on progress and civilization in the modern world. *Callinicus* is written very much in the spirit of *Daedalus*, especially in its rejection of conventional morality and orthodox religious sentimentalism. As well, Haldane criticizes the conservatism, hypocrisy and 'false-humanitarianism' of the professional military establishment in Britain, and its various backers in government and civilian society.

Early British eugenicists, such as Major Leonard Darwin (grandson of Sir Charles), or American aristocrat Madison Grant (author of *The Passing of the Great Race*, 1916) had been quite sympathetic to traditional warfare for its efficacy in eliminating the unfit and racially inferior in conscript armies. However, most post-war eugenicists (including a sobered Madison Grant in the 1918, revised edition of *Passing*) decried the indiscriminate, profligate slaughter of modern industrial warfare, especially the high casualty rates suffered by eugenically-sound Nordic officers and fit, patriotic, WASP volunteers. Nordacists railed against the dysgenic effects of the unfit Army rejects upon society, who remained at home, breeding even-more prolifically, and polluting the morals of 'unprotected' Nordic women; while their preferred mates were dying overseas before they had the chance to marry and breed.

¹⁹⁵ See Kohlman (2015a) for a description of the German gas program and the leadership of elite chemists, including Fritz Haber, who weaponized their discipline in the patriotic service of Kaiser and Reich, in what became known as 'The Chemist's War.' Kohlman (2015b) covers the U.S. Chemical Warfare Service in WWI and the Interwar period.

Thus the Great War radically affected eugenicists of the early inter-war period. The bulk of the ‘lost-generation’ in Europe largely tolerated the ‘restocking’ of society by whatever heredity was available, in a patriotic drive to redress the quantitative deficit. In America, where the victorious Johnny-come-lately’s to the Great War (not until April 1917) had suffered much less in the attritional genocide of trench warfare; a widespread movement to restrict populations and prevent certain types from breeding arose, sustained by the public’s acceptance of negative eugenics (see Chapter IV for more of the conventional eugenical wisdom about traditional versus modern industrial warfare).

Chemical weapons were also to be modified and deployed for civilian uses in the interwar years, primarily as pesticides. But, they also found such eugenic or race-hygiene applications as poisons in gas-chambers for the executions of convicted criminals in America. Later, in Nazi Germany, similar gases were used for the ‘T-4’ Euthanasia-campaign that pioneered the use of Zyklon B, a safer alternative (for the executioners) to raw hydrogen cyanide. These techniques were then scaled-up for the industrial elimination of undesirables in the Final Solution that followed (see Russell, 2001, *War and Nature: Fighting Humans and Insects with Chemicals from World War I to Silent Spring*). It is remarkable that Haldane did not mention or predict these civilian applications of wartime poison gases, though he did predict the development (in the far-future) of nuclear weapons. These ultimate expressions of the destructive power of modern science were to provoke an even more profound societal reaction to the role of science and industry in warfare, after the ‘Physicist’s War’ in WW II; far surpassing the public’s fear and loathing of the ‘Chemist’s War.’

Haldane on Chemical Weapons

Haldane admitted his bias towards chemical warfare early in the book, since as a chemist of sorts “I can no more be expected to be impartial of the value of chemistry than a politician or clergyman can be expected to give an unbiased view of the value of politics or religion” (p. 2). He addressed the irrational basis of the conventional morality against the use of poison gases, blaming a combination of anti-German wartime propaganda, and a naïve romantic reaction against technological science transgressing into the noble profession of arms. The latter complaint was a common reaction among the career military officers of all the major powers during and after World War I. Fritz Haber also frequently remarked on the same ingrained resistance to novel technological innovations in the Imperial German Army (Haber, 1986). Haldane decried this institutional resistance, and while he shared their aversion to industrial war, he dismissed their naivety, stating that “War will be prevented only by a scientific study of its causes, such as has prevented most epidemic diseases” (p. 3).

He next discussed the noble history of scientific innovations in warfare, from the Greek fire of Byzantine times that saved that Empire from the Ottoman hordes, to the invention of modern gunpowder and high explosives that allowed relatively small professional European armies to repel or dominate large hordes of uncivilized races in the colonies and at the borders of Europe (See Bown, 2005, *A Most Damnable Invention: Dynamite, Nitrates, and the Making of the Modern World*.)

Haldane then devoted a long section to discussing the types of gases, smokes and chemicals used during the war, from simple chlorine and phosgene gases, to the more complex volatile liquids like ‘mustard gas,’ to the arsenic-based compounds such as the American wonder-weapon ‘Lewisite’ that was postulated to have frightened Germany into surrendering before it could be deployed (Vilensky, 2005). He discussed the advantages, limitations and potentials for these various compounds and blends, along with their defensive counter-measures such as gas masks, respirators and rubber suits. He also explored the panic and irrational fear chemical weapons caused, out of all proportion to their lethality and the actual strategic threat they posed. Haldane analyzed the effectiveness of various chemical weapons for both static trench warfare and mobile warfare using specially sealed armoured vehicles. He argued that chemical weapons had much more potential for future development than chemical explosives or other conventional weapons. Although he predicted the later development of nuclear weapons, he consigned this possibility to the far-future, long after one of his descendants gave “a lecture to a party spending a holiday on the moon” (p. 19).

Next, Haldane made the case for chemical weapons as a humane alternative to the indiscriminate slaughter of machine guns, high explosives, incendiaries and shrapnel from fragmentation shells or bombs. He pointed out the hypocrisy of banning ‘chemical weapons’ at international armament conferences (such as the Washington Conference in 1922), while allowing the continued use of other weapons that are also derived from chemistry, like explosives or flame-throwers. He reserved his most stinging remarks for the “Bayardists” (pp. 28-33), named after the French Knight who displayed unrivalled chivalry to his conventionally armed opponents, while at the same time exacting lethal revenge on the early users of the Arquebus. These primitive black-powder weapons, although horribly inaccurate, could slay an armoured knight; thus making the noble Chevalier, previously almost immune to the crude weapons of the common foot soldier, vulnerable to a lucky shot by the lowest peasant wretch. Thus, it was a vulgar clash of social classes that occasioned the greatest disdain against these formerly ‘modern’ weapons. Haldane asserted this same aristocratic bias was behind the professional officer corps irrational disdain for chemical weapons in World War I, and the loss of prestige they caused the traditional elite of the cavalry, the closest descendants to the Knights of yore.

To these modern 'Bayardists,' Haldane added a categorized list of their allies that raised his scientific hackles:

Meanwhile the Bayardists nobbled a curious assortment of allies in their so-far successful attempt to prevent the humanization of warfare. First are a number of out-and-out pacifists, who object to all war, and apparently hope to make it more difficult by restricting the means of fighting allowed... With them are associated a group of sentimentalists who appear to me to be the Scribes and Pharisees of our age... They salve their consciences for such behavior by attacking, in the name of their god or their ideals, every novelty, whether in thought or in action, which presents any loophole. In particular, they are distinguished by a ferocious opposition to, and contempt for, any attempt at the solution of human problems by honest and simple intellectual effort. Mustard gas kills one man for every forty it puts out of action; shells kill one for every three; but their god who compromised with high explosives has not yet found time to adapt himself to chemical warfare. (pp. 31-33)

To this largely class-based argument, Haldane later added an interesting racial element. In the midst of discussing the future employment of chemical weapons and their countermeasures, he made the observation that certain races seemed to show an innate immunity to certain chemical weapons, especially to blistering agents like mustard gas:

The American Army authorities made a systematic examination of the susceptibility of large numbers of recruits. They found that there was a very resistant class, comprising 20% of the white men tried, but no less than 80% of the negroes. This is intelligible as the symptoms of mustard gas blistering and sun-burn are very similar, and negroes are pretty well immune to sunburn... it should be possible to obtain coloured troops who would all be resistant to mustard gas in concentrations harmful to most white men. Enough resistant whites are available to officer them. (p. 45, 46)

He went on to describe a strategic offensive plan for taking fortified enemy positions using a combination of long-range artillery and sealed armoured-vehicles (presumably crewed by vulnerable White-troops), "supported by negroes in gas gas-masks" (p. 47). He argued this would even offer a counterbalance to German scientific-technological superiority in warfare: "Germany's advanced chemical industry being counterpoised by French negro troops. Indians [which the British Empire had in abundance] may be expected to be nearly as resistant as negroes" (p. 50). To this racial theorizing, Haldane offered another advantage for 'civilized nations' in using chemical weapons, in that they require a higher degree of organization and scientific know-how than the uncivilized nations could be expected to reach in the near future (he used the Russians and Ottoman Turks as examples of primitive enemies that would thus be vulnerable to chemical attacks).

Haldane also argued for the widespread provision of gas masks or similar protective devices for the civilian population of England before any future war, and training in their use, along with public education for the ultimate humanity of chemical weapons to counter the malicious propaganda of the sensationalistic press, opportunistic politicians and naïve clerics. In this sober warning, his channeling of the spirit of Daedalus came through clearly:

If, then, in future wars we are to avoid gross mismanagement in high places, and panic and stupidity among the masses, it is essential that everyone should learn a little elementary science, that politicians and soldiers should not be proud of their ignorance of it, that ordinary men and women should not be ashamed or afraid of knowing something of the working of their own bodies. If we persist in the belief that we can be saved by patriotism or social reforms, or by military preparation of the type which would have sufficed in former struggles, we shall go down before some nation of more realistic views. (p. 72)

He cautioned his British readers that the “Roman and Spanish empires appear to have perished largely from such intellectual torpor” (p. 74). The last ten pages of *Callinicus* was largely an appeal for the rational-scientific adjustment needed in Britain to survive the tests and attacks of other rising industrial nations (such as Germany) if they were to retain their position of pre-eminence on the world stage. Failure to make these adjustments would result in the same fate as the Romans and Nordic Castilians of yore. He lamented the ultimate futility of the belief commonly expressed by the general public that scientists should always consider the future applications of their research programs and discoveries. He rejected this position as naïve and sentimentalist twaddle, and stated that any society that does not willingly engage in scientific research for new offensive and defensive weapons would be vanquished by those that dared to pursue progress and innovation in all arenas of applied science and technology. In this attitude, Haldane was following the same learning-curve of other post-war advocates for the growth of the military-industrial-scientific complex that furiously copied German scientific and technical education. In particular he praised the German Technical High-schools (Technische Hochschule) and the elite Kaiser Wilhelm Institutes that produced such patriotic geniuses as Fritz Haber and fellow *gassonderkommando* and Nobel laureate Otto Hahn, who gave us chemical weapons, synthetic fertilizers (or high explosives in a different formulation), and eventually, nuclear fission.

Haldane once again donned the “black robes from top to toe” of Daedalus, and argued for the rebellious spirit of Prometheus that he had closed *Daedalus* with, to break-out of the old religious and sentimental traps of orthodoxy, and instead embrace a rational future of secular and amoral ideals:

Poisonous gas had a great moral effect just because it was new and incomprehensible. As long as we permit ourselves to be afraid of the novel and unknown, there will be a very great temptation to use novel and unknown weapons against us. Now, terror of the unknown is thoroughly right and rational so long as we believe that the prince of this world is a malignant being. But it is not justifiable if we believe that the world is the expression of a power friendly to our aspirations, or if we are atheists and hold that is neutral and indifferent to human ideals. (p. 81, 82)

He closed *Callinicus* with an appeal to the scientific facts and a pre-emptive attack on the Bayardists of his age that he fully expected to counterattack by *ad hominem* denunciations of his Daedalesque lack of morality, religiosity and/or faculty for reason:

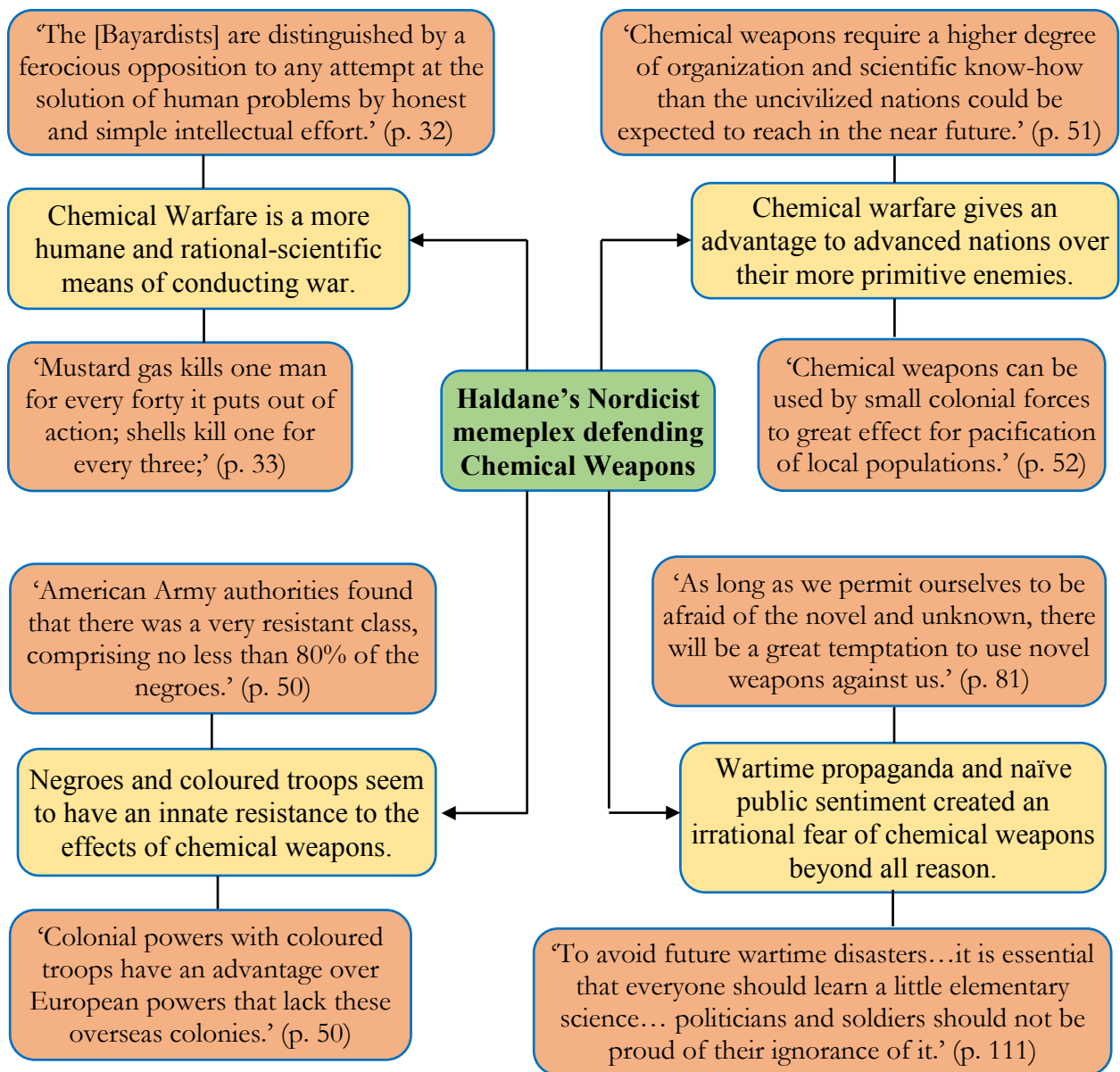
Such are the facts about chemical warfare. They will not be believed because a belief in them would do violence to the sentiments of most people. They will not be promulgated as there is no money to be made out of them. The views which I have expressed do not coexist in the mind of any party leader or newspaper proprietor, and must therefore be those of a crank. (p. 83)

Although Haldane was quite correct about the vociferous counterattacks (including that of fellow philosopher and *To-day and To-morrow* contributor Bertrand Russell), he did have some scientific and political allies in support of chemical warfare. This was particularly evident in America where the United States Chemical Warfare Service was doing extensive political outreach and public relations exercises to transform the wartime disgust and distrust of chemical warfare into a fervent lobby backing American poison-gas research and a larger budget for their possible use in future conflicts (Kohlman, 2015b; Vilensky, 2005).¹⁹⁶

A partial meme-map for Haldane's *Callinicus* (1925), showing some of the key memes and clusters expressed in his second contribution to the series, is pictured in Figure A3-16 on the following page. Unlike his first effort (*Daedalus*, 1923), which contained very little overt racial content, Haldane's overt Nordic bias in *Callinicus* is represented in this meme-map by the use of blue borders for the meme boxes. Although Haldane did not explicitly mention eugenics here, his rhetoric followed the norm for Nordic racial superiority then in vogue, as deployed by such hardline eugenics stalwarts as Madison Grant and Michael F. Guyer (professor at the University of Wisconsin and author of numerous 'civic-biology' texts – See the descriptions of Grant and Guyer in Chapter IV).

¹⁹⁶ It is worth noting that Haldane's ideas on chemical weapons for fighting colonial wars against 'primitive enemies' was put into practice by the Royal Flying Corps in their counter-insurgency battles against tribal Arab forces in the new British Protectorate of Iraq during the mid-late 1920s (see Tucker, *War of Nerves: Chemical Warfare from WW I to Al-Qaeda*, 2006).

Partial Meme-map of Haldane's *Callinicus*, defending Chemical Warfare



Color Code: Meme clusters Memes or small clusters (Blue borders - Nordacist paradigm)

Figure A3-16: A partial meme-map showing key memes and clusters in Haldane's racially explicit defense of Chemical Warfare. Although the focus of the book was never on eugenics, Haldane's overt Nordacist bias agreed very well with American hardline eugenicists and their views on modern industrial warfare (see Chapter IV for more on the dysgenic aspects of war).

Contemporary Reviews and Critical Reactions to *Callinicus*.

Callinicus attracted the attention of several contemporary reviewers, one being American sociologist F. H. Hankins (a future president of the *American Sociological Society*) in their journal *Social Forces*.¹⁹⁷ The very curt, neutral review from May 1925 is shown in Figure A3-17 below, in its entirety:

CALLINICUS. A DEFENCE OF CHEMICAL WARFARE. By
J. B. S. Haldane. New York: E. P. Dutton and
Company, 1925. 84 pp. \$1.00.

So long as war is so prominent a feature of our environment, Haldane argues that it should be viewed intelligently. We shall not get rid of it by merely objecting to it. We must know its causes scientifically. Meanwhile, it is no more wrong to fight with mustard gas than with dreadnoughts, airplanes or Big Berthas. Indeed, it appears no more wrong and even less brutal; and appears likely to result in a shorter war with much fewer casualties.

F. H. H.

Figure A3-17: Review of *Callinicus* in the American sociology journal *Social Forces* of May 1925. (p. 802)

Unlike his earlier *To-day and To-morrow* volume (*Daedalus*, 1923), *Callinicus* (1925) was not a best-seller for the series; but it was included in the volume *War and Politics*, when much of the seminal series was republished by Routledge in 2008-09. Haldane had only to wait twenty years before his views and predictions were believed, promulgated and drastically improved by numerous chemical pioneers and other scientists in devising such novel weapons as Zyklon B, napalm, various nerve gases, the V-1 and V-2, and the ultimate novelty of wartime Big Science and military-industrial organization: the Atomic Bomb. That this all occurred in the short span of two-decades would likely have both pleased his *Daedalus* avatar of 1923, and shocked the J.B.S. Haldane of 1925. It was to have an even more profound effect on his series rival, Bertrand Russell (1872-1970), who devoted the last few decades of his life to the international pacifist movement and nuclear disarmament.

¹⁹⁷ Hankins was also a contributor to the American Eugenics Societies' journal: *Eugenics: a Journal of Race Betterment* (1928-31). See Chapter IV and Appendix IV for much more on this pioneering American effort for eugenics education and racial hygiene, including Hankins's contributions to *Eugenics* and its popular magazine successor, *People*.

A. M. Ludovici's *Lysistrata, or Woman's Future and Future Woman* in the *To-day and To-morrow* Series

The *To-day and To-morrow* book series, inaugurated in 1923, had already published ten volumes before turning to the controversial topic of women to-day and their role(s) in the progressive future of to-morrow. *Lysistrata* was the first of two volumes published in 1925 on this theme, written by prolific author and translator Anthony M. Ludovici (1882 – 1971).¹⁹⁸ It was soon followed by its antagonistic series-partner: *Hypatia, or Woman and Knowledge*, by Dora Russell (1894 – 1986), the first female author in the series, and the second wife of *Icarus* (1924) author and philosopher Bertrand Russell (see separate reviews in this appendix and in Chapter III). Women's issues and their societal roles was a perennial controversy in the male-dominated eugenics movement from the outset, but eugenics also naturally attracted the involvement of many women and women's organizations, particularly in advocating for legalized or even State-provided contraception materials and services. These themes and the major female players associated with the movement have been extensively revisited by scholars in the post-modern era. This specific pairing was typical of several seminal issues related to eugenics in the series and their coverage from different perspectives. See *Lysistrata* title-page and promotional mini-review excerpts in Figure A3-18 below:

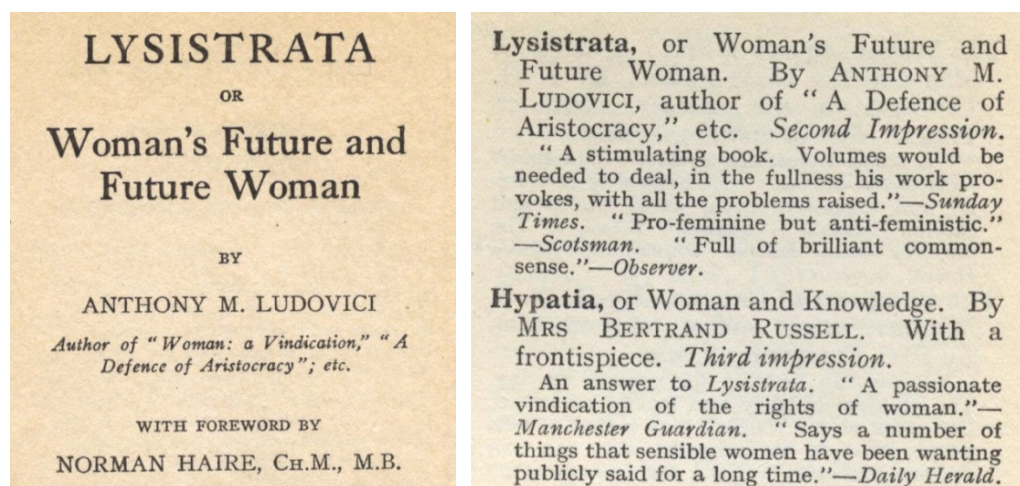


Figure A3-18: *Lysistrata* title-page and promotional reviews for the twin titles of the *To-day and To-morrow* series devoted to women's issues. Dr. Norman Haire, pioneer sexologist and birth-control activist, who provided the foreword, also later authored *Hymen, or the Future of Marriage* (1928) for the series. (See the separate review of *Hymen* in Chapter III).

¹⁹⁸ *Lysistrata* is a 4th Century BCE Greek comedy by Aristophanes, in which the title character convinces the women of Athens to withhold their sexual favours, as a way of pressuring their men to end the Peloponnesian War. But instead of the desired effect, it results in a war between the sexes, dividing Athens' society into two hostile factions.

Ludovici was already an accomplished linguist, philosopher and author, as noted on the title-page, and was a renowned scholar of Friedrich Nietzsche (1844-1900), translating many of his works for English audiences. He served as an officer in the Royal artillery and military intelligence during World War I, and was awarded the Order of the British Empire (O.B.E.) for his service. Already an entrenched Conservative, Ludovici's *A Defense of Aristocracy: A Textbook for Tories* (1915) established his political loyalty with the Imperial elite, and this standpoint was to sharpen after the war, as a reaction to the resurgence of participatory democracy and the increasingly strident demands of feminists, socialists and other interest groups pressing for more political power in the weakened post-War Empire. Ludovici was also peripherally involved in the British eugenics movement, publishing many articles and several books on eugenically-tinged issues, in addition to *Lysistrata*. But he was not a typical voice of the Progressive-era, but more of a chauvinist remnant of the early Victorian era, before universal suffrage and first-wave feminism began to seriously chip-away at the old aristocracy that had ruled English society and governed its sexual mores for so long.

The longest book in the series to date at 113 pages, *Lysistrata* began with a three-page foreword by Dr. Norman Haire, who made it quite clear that he disagreed with many of Ludovici's views and even chided Ludovici for being "very hard on the medical profession." Nevertheless Haire thanked him for the thought-provoking work. Haire went on to lavish praise and affirmation more often than he panned *Lysistrata's* medical advice, including the exhortation to breast-feed babies, the importance of proper diet during pregnancy, and the physiological roots of "moral depravity" (v, vi). Haire made a special plea here to advocate for widespread birth-control, not only for contraception that he saw primarily as a method for spacing births, but also for infanticide of defective babies and compulsory sterilization of deficient adults "obviously below a minimum (variable) standard" (vii). He also concurred with Ludovici's arguments for alternate marital unions, notably polygamy and concubinage. These themes would be greatly expanded and amplified in Haire's series addition: *Hymen, or the Future of Marriage* (1928 – see coverage in Chapter IV). Like Dora Russell's preface in *Hypatia*, or Haldane's in *Daedalus*, Haire predicted that Ludovici "will be denounced as a daring and fantastic visionary, and I shall be blamed as an aider and abettor."

The introductory chapter, "Values Direct Science" was largely a recapitulation of F. C. S Schiller's (*Tantalus*, 1924) dire warnings of racial degeneration through the misguided application of medical technology; and decrying the many civilizational crutches that allow the weak and unhealthy to survive and reproduce their kind: from eyeglasses and false-teeth, to the patent foods, medicines, and artificial substitutes for the pure and unadulterated lives by which their ancient forebears lived.

Ludovici lamented that most people, even those who declare themselves well or fit, are so lacking in awareness of their advanced state of deterioration as to be oblivious to the danger this ignorance posed to the long-term survival and progress of the race:

Defective functioning and incomplete bodily equipment no longer debar anybody from regarding himself, or from being regarded by others, as desirable and normal. Even in the vital matter of mating, this is so—how much more customary it must be in less vital matters! Stand-up, smile, and agitate your four limbs to indicate that they are intact and still movable, and that is enough. The bias against a whole list of defects and blemishes has completely disappeared. Moral depravity is still stigmatized. About physiological depravity, however, the world is frivolously indifferent. (p. 5)

He went on to provide scenarios from popular novels to highlight this physiological depravity, decrying the common attitude in modern women to overlooking physical defects in potential suitors in favour of personality attributes and their compatibility as a ‘soul mate.’ He condemned this “spiritual atmosphere” of modernity, which he labeled as the “body-despising values” of our age through most of the book. He broke down this “doctrine” into its component parts: “(a) the over-emphasis of the importance of the soul, and (b) the contempt and general slander of the body” (p. 7). Before examining the historical record for the origin of this dysgenic doctrine, he remarked that it was a wonder that the sad state of affairs operating now had taken so long to become so evident and that the situation is not actually much worse:

If our values had not for scores of generations turned us away from strict standards concerning the body, it is inconceivable that we should have become what we are; it is inconceivable that this atmosphere of toleration and indifference towards bodily defects should have become so universal. A nation ultimately becomes the image of its values. The values are the dies, the nation is the coin. From the faces of modern English people we can judge their values. (p. 8)

Ludovici implicated Western religion as being the original fount of this body-despising doctrine, made nearly universal despite the fact that many moderns have discarded religious orthodoxy for secular humanism. He chided Dean Inge (1860–1954, Anglican Dean of St Paul’s Cathedral) for his vehement support of eugenics while holding these incompatible views, and argued that if it were not for the modern perversity of placing spiritual qualities above the fitness of the body, eugenics would be redundant and unnecessary. He rejected Dean Inge’s supposition for the origins of rampant racial degeneration in the Industrial Revolution, having painstakingly charted its genesis to centuries before

the onset of widespread industrialization, and he further stated that any racial progress to be made by eugenics is contingent on correcting this erroneous belief system:

[T]he spiritual environment of all modern sub-human people is the outcome of our fundamental values, as is also their sub-humanity; and that this spiritual environment is characterized by a tendency to neglect and despise the body...[T]o put it in the mildest and most moderate terms, it is impossible altogether to absolve these fundamental values from responsibility in the matter; and to ignore their influence, and to join the Eugenic movement, without first reckoning with their power, as Dean Inge has done, is to be guilty of a confusion of thought unworthy of anyone who professes to guide public opinion. (p. 12)

Ludovici did blame the Industrial Revolution and the consequent “material environment” of modernity for accelerating the trend for degeneration and sub-humanization, by allowing for the invention and popularization of all-sorts of mechanical aids and medical apparatus that compensated for bodily deterioration, but at the cost of “progressive evolution” (p. 13). Thus, eugenics (environmental improvement) had only temporarily compensated, and in reality merely accelerated the physiological deterioration. He accused modern society of not only ignoring “any lessons from the doctrines Darwin taught last century,” but of actually working in the opposite direction: “Progressive evolution is no longer a fact with us; for as a species we are steadily falling back to a level below that attained by our race in former ages. While we ourselves...steadily recede along the scale of quality, our environmental conditions, our tools, our means, acquire ever greater perfection” (p. 13). He highlighted various industries that evolved to compensate for our devolution as a race: applied chemistry in the form of “patent foods” (what we call processed or ready-to-eat prepared foods); pharmaceutical firms and their “patent medicines”; manufacturers of artificial limbs and body-supports; and he condemns the “magnates” of these industries that were using these technologies to make a fortune off the physical ruin of mankind (p. 14). But Ludovici’s greatest disappointment was with the direction of modern medical and applied sciences in aiding and abetting this rampant racial degeneracy and physiological deterioration, with an ever-increasing stream of artificial aids or crutches for the unfit, and he argued that a wholesale change in values was vital to the long-term future of man:

[S]cientific research will concentrate ever more and more on those discoveries which promise to alleviate physical degeneration or else to conceal it. And, as we slough off further parts of our bodies, or lose further powers of functioning, we may rely upon science being ever ready with artificial aids, to make our lives just possible notwithstanding. In this way, *values direct science*. If we altered our ruling values, we should find that the direction of science was also altered, because the desiderata always implicit in ruling values would have changed. (p. 15)

In hindsight, we know this changing of societal values and consequent redirection of science and technology was to occur shortly, but not so much in Britain as in post-War America, and in the even more extreme exemplars of Nazi Germany with eugenics and race-hygiene, as well as in Stalin's USSR with the 'Stalinization' of Soviet science, including *Lysenkoism* (see review of *Galatea*, 1927).

Ludovici then devoted several pages to an aesthetic appeal to clean living, essential for proper bodily function and preserving life's enduring natural joys, especially those associated with sexual reproduction and child-bearing. He lamented the loss of the *joie de vivre* celebrated since antiquity in such simple pleasures as eating natural foods with natural teeth, the experience of breast-feeding, and the "rapturous transports of love" with a properly maintained and functioning body. He denied Dean Inge's charge that this philosophy of body-affirming values was materialistic, and argued instead that "a healthily functioning body can be forgotten. Thanks to its serenity, its muteness in efficiency, it allows its owner to indulge in every variety of spiritual exercise" (p. 19). He offered this partial excerpt of a manifesto for a spiritual-eugenic age to come, if only we would throw-off the shackles of the body-despising values that have led to our racial downfall:

While, therefore, we accuse the values which for centuries have cast a slur on life and the human body of being the cause of modern decadence, we do not thereby proclaim ourselves either irreligious or materialistic; for, let those who would too hastily presume both our irreligiosity and materialism remember that there are other religions besides that which first created the body-despising values to which we allude. (p. 19)

Women of To-day: The Single

Having provided a general introduction to modern racial degeneration and the skewed values that guided our democratic society and our science and technology, Ludovici turned to the "Present Position of Women: The Unmarried" in Chapter II (p. 21), asserting that women have suffered even more from the ravages of corporeal degeneration than men, incurring an even greater share of the subsequent loss of vitality and *joie de vivre*, now capable of only "fourth-rate bodily joys" and then only with the aids-to-daily-living of scientific and medical technology. This differential deterioration of females had even greater consequences for the race than the sad state of modern man, and he offered the example of the huge popularity of the modern novel, with its almost entirely female readership, as proof of their deep dissatisfaction and need to live "vicariously in the unreal world of fiction" (p. 22).

Ludovici also reminded readers that the ancient wisdom traditions knew that “the value of life for women depended to a great extent on her physical efficiency and health” and gave examples of formal instruction on the eugenic and eutenic raising and marriage of women to the faithful of yore in their sacred books, quoting passages by Manu and Ecclesiasticus, and ending with the “last vestige of the old pagan spirit” in the pre-Revolutionary (English) *Book of Common Prayer* of the 15th Century (p. 23). It was here, in an extensive footnote on page 23, that we learned the ultimate source of the body-despising values that Ludovici spent so much effort attempting to denounce and reform:

[A]s everybody must know, the Old Testament and the New are quite different in their attitude towards the body. In the New Dispensation and certainly in traditional Christianity, it is never suggested, as it is in Judaic law, that a man who is bodily defective defiles the sanctuary of the Lord when he approaches it. This healthy attitude to the body, can be found neither in the New Testament nor in historical Christianity.¹⁹⁹ (p. 23)

He argued that the Christian West had lost “all sympathy” with this earlier attitude of respect for the body, and coupled with the distaste towards marriage and motherhood that has afflicted modern women; these existing dysgenic social trends were exacerbated and inculcated by the ‘Radical Feminist Movement,’ which Ludovici condemned as an offshoot of Puritanical Christianity. He cited for compelling evidence, the Feminist response to the widely circulated press reports of the two million “surplus women” after the Great War, expressing their moral umbrage at being declared surplus and lauding their ability to be gainfully employed, self-supporting members of society, as if that were the sole value of female life (p. 24). Ludovici warned their were severe psychic and physiological consequences for breaking the ancient patterns and denying the physical benefits of sexual congress and maternity for women, when they postponed marriage and prolific motherhood for education, career and the alluring distractions of social life outside of husband and family. He provided statistics showing the alarming rise of “spinster workers” in England and Wales and lamented the harm done to the female spirit “by converting them into little more than machine-minders or adding machines” and drawing them away from the bodily health-giving arts of the home (p. 25). Aiding this downward trend were the new domestic industries and commercial products or services replacing the full-time wife and mother, which also exposed children to the unhealthy foods, routines and attitudes of modernity, becoming more pernicious with each generational cycle in positive feedback-loop of dysgenic ruin.

¹⁹⁹ Something of this same sentiment can be found in a number of articles in *Eugenics: A Journal of Race Betterment*, especially one by Rabbi Grossman and Leon Whitney, celebrating the eugenic endorsements of the Old Testament and the Torah, and how they produced ‘Jewish Excellence’ (See the ‘Eugenics and the Church’ section of Appendix IV).

Ludovici offered little hope for this growing “army of spinsters” in emigration to the “self-governing Dominions” as they could “absorb” only a small fraction of the present surplus, and most would be unsuited for the demands of Colonial life, citing research by Dame Muriel Talbot O.B.E., testifying to their debility in adapting to the rigors of pioneer or rural life (p. 35). He presented a brief ethnological survey of the spinster class: the noble aristocratic type of old, who was so thoroughly disgusted with the effete, degenerate males of the age that she could not stomach physical union; the distracted shop-girls and working-women who were duped by the ideals of the Feminist Movement and thus put-off marriage and motherhood; to the large number of bodily defective women “so conspicuously inferior in passion and equipment” for marriage “through sheer physiological apathy” (p. 37). When their numbers were added to the large number of disgruntled wives, and under the male-slandering Feminist leadership, they formed a growing political bloc whose thwarted feminine passions were subverted into a “lust of exercising power [that] becomes a consuming passion” seeking any opportunity for interference, for control, for social gain as a means of “alleviating the hunger for compensatory power” (p. 38). He argued this wayward compensation was aesthetically futile, harmful to the natural instincts of women. It resulted in a pervasive hatred of men among the disgruntled wives and an enduring jealousy that poisoned the next generation of females, like modern Lysistratas, but with less-patriotic motives:

The very natural discontent which arises from thwarted instincts will also tend to express itself... as a bitter hatred of man; and... in its extreme form as an unconscious jealousy of healthy young women and happily married women. This will lead to an attempt to wean the latter from the lure of love and men. Signs are already visible which show that such a movement is on foot, and although these Lysistratas of the modern world have not Lysistrata’s patriotic motives, this will not make them any the less anxious to achieve their end. (p. 39)

He compared the attitude of the Feminists toward “our vast army of spinsters and disgruntled wives” to the leaders of the Socialist movement. He charged both movements with exploiting women’s latent discontent to the movement’s selfish advantage. In their Puritanical zeal, they did not even realize the irreparable harm they were doing to womanhood, while recruiting new victims to a burgeoning society of “neuters,” and acting with a clean conscience full of moral indignation based on the body-despising values of Puritanism, in the misguided belief that man was “*the enemy par excellence*” (p. 41), especially in his degenerated modern form.

Women of To-day, Part Deux: The Married

Chapter II continued to explore the present position of women, turning to “the lot of the nine million women in England and Wales who are or have been married” (p. 42). Ludovici revealed that the effects of rampant physiological deterioration in the modern world are most serious for those in the married state, where their Puritanical body-despising attitude acts as a “disturber of our bliss [in] almost every aspect of matrimony.” This degeneration results in ever-greater difficulty for modern women in carrying their primary maternal functions: “gestation, parturition, and lactation; by converting these once beautiful and enthralling functions into things of ugliness and pain” (p. 44). He decried the latest indignity to be suffered as a result of our wayward table of values: artificial insemination, in that it takes us one step closer to the ultimate goal of Puritanical Feminism – the elimination of all sexual congress and even of the body itself.

Artificial aids to childbirth, from anesthetics to obstetric instruments of all kinds, were destroying the once sublime experience of childbirth, while cows-milk and other breast-milk substitutes were ruining the bliss of natural breast-feeding and added an extra dose of besotment to the infants so nursed. He insisted these ugly circumstances of modern childbirth are actually discouraging young women from prolific motherhood, and even condemning many women among the better classes to pledge their life to spinsterhood rather than suffer the horrors of the maternity ward. He laid the primary blame for this sad state of affairs on the medical profession: from the impatience and constant hurry of the attending doctors, to the industrial ambiance of delivery rooms, and even the practice of teaching interns and residents how to use the technical apparatus of modern obstetrics on even the most normal pregnancies, rather than only those cases that actually required them.

Ludovici attacked three main misconceptions or myths that have arisen among modern medical practitioners and women regarding childbirth. The myth of larger heads among modern babies and smaller pelvises among women was busted with the help of anthropological research by Sir Arthur Keith.²⁰⁰ The desire or common goal of having babies of eight or nine pounds was also implicated as a primary cause for women’s discomfort during pregnancy and greater difficulty in delivery. Finally, “*the belief... that it is God’s decree that children should be brought forth in sorrow*” was exposed as Puritanical nonsense, although he admits that given the faulty bodily equipment of the typical “Syrian Jewess” there was no doubt these women would have suffered, “but what does that have to do with us?” (p. 52).

²⁰⁰ Sir Arthur Keith, who later added his own contribution to the series (*Ethnos, or the Problem of the Race*, 1931) was the default anthropological authority on prehistoric races of men for many authors in the eugenically explicit titles.

He contrasted this sorry state of affairs with those pre-modern races that still enjoy much easier parturition and still display “faint vestiges of that ecstasy which must once have attended the function” (p. 54) under the natural birthing conditions of old. One of the main culprits preventing easy and ecstatic childbirth was the modern diet of women, high in fat and protein, and containing the artificial additives and unnatural ingredients of modern patent foods. Ludovici hailed some recent studies showing mothers who have smaller, lighter babies are spared much of the pain and discomfort, and the babies so born quickly gain weight and thrive better than the overweight cherubs hailed as the ideal by foolish moderns. He turned next to lactation, where modern body-despising values had perverted the “serenity and bliss” of this sacred function of motherhood with skewed values and artificial substitutes that promote continued degeneration and bodily deterioration. He cited several authorities on natural breast-feeding, and implicated the busy “social life” outside the home as propagandized by the Feminist movement as the main catalyst for the switch to artificial formulas and patent foods for infants. More medical experts were consulted on the inadequacy of these formulas in providing proper nutrition and promoting healthy growth and development, and Ludovici conducted a brief ethnological survey on the growing popularity of these substitutes, once only used out of dire necessity, but now becoming almost ubiquitous in recent times and pronounced: “it is impossible to calculate the damage which the latest development of “Progress” may ultimately do to the spirits and bodies of civilized men” (p. 65).

Woman’s Future: Through a Dysgenic Timeline, Darkly

Having thus dealt with the present position of women, and all the societal problems that got us here, Ludovici turned his gaze to the future. He began with a summary of all the social forces that brought us to this crucial crossroads: bodily degeneration, perverted science and technology, Feminism, Puritanism, the emasculation of men, and the increasing cleavage between the sexes. Rather than making bold predictions or proffering his recommendations, he offered two alternate trajectories. Like the prophets of the Old Testament, he warned of the looming twin fates that British society had to choose from: either keep going the way we have and face ultimate ruin or extinction (Chapter III), or revolt against the present body-despising values and regain our former biological vigour, aesthetic values and healthy natures, as presented in Chapter IV.

The first alternate timeline, presented in Chapter III: “Woman’s Future,” was essentially a slow descent into an ultimately dystopian Feminocracy, not just dominated and ruled by, but almost completely populated by Feminists; in which only a tiny number of men have been retained as sperm

donors for artificial insemination. Ludovici laid out the necessary pre-conditions for this future to unfold, almost all of which had already been realized and which were dealt with in prior chapters in detail, but those that relate specifically to women and the rise of feminism are presented here:

(d) A large body of disgruntled women, mostly unmarried, who, having turned away from Life and Love either through lack of mates or the nausea acquired in modern matrimony, are prepared to slander not only Life, but also motherhood, domesticity, and man, and who in their conscious or unconscious jealousy of younger women and girls, try to convince them that life can be lived happily without bodily adaptation.

(e) Social circumstances which force millions of women into open competition with men, and therefore increase the initial hostility fostered by [bodily degeneration], [emasculatation] and (d).

(f) A state of abnormality so acute in some of the chief functions connected with the sexual life that more and more cogent arguments are found ready to hand for those who, through Puritanism, jealousy of the rising generation, or hostility to the male, wish to slander life and emancipate themselves *and others* from “*that side of it.*”

(g) A movement known as Feminism generated chiefly by (a), (c), and (d), and greatly reinforced by (e) and (f)... which claims that it can recruit from its own supporters the mastery, ability, and strength to put the world right, and which proposes to do so by superseding man everywhere, if possible even in his reproductive role. (p. 69)

True to his *Defense of Aristocracy* (1915) and echoing Galton's *Hereditary Genius* (1869), Ludovici reminded readers that all significant societal innovations or reforms “are always the work of a leading, active, gifted, and small minority”... in which “the willful minority establishes the environment, or mould, and the inert, ductile masses pour into it and receive their shape” (p. 70). He offered damning praise for the small minority of aristocratic, indefatigable and gifted minority leading the Women's movement, and lamented that so many “monorchid and shallow-minded men” had already gone over to the enemy, as well as an increasing number of girls and young women these leading spinsters had recruited to a sexless life and who, in our present muddle and lack of apparent alternatives “see in the quack-cure of Feminism their only hope” (p. 71). He warned that unless we understand the problems that got us here, we are powerless to resist or realize any other future.

He described the symptoms of the disease: women abandoning their traditional roles as faithful wives and mothers for careers in competition with men and in vain pursuits and sterile amusements, the degeneration and emasculation of men, and the move to universal suffrage and equal rights in all civil matters; all of which has resulted in the cacocracy of modern Democracy. He pronounced that nothing of great value had come from women's access to the corridors of male-power, “and we can prophesy with perfect confidence that nothing ever will, even when, as may quite possibly happen,

Parliament consists only of females” (p. 74). He further argued that their only contribution had been the furtherance of the dysgenic Puritanical agenda. From here he launched into a condemnation of universal suffrage and modern democracy, as a quack-cure for the problems he previously identified:

Modern democracy with its political machinery is so thoroughly discredited, and is moreover such a menace to our national greatness that, if there had been any social acumen or shrewdness in woman, she would have proved it by utterly scouting this political *faux pas* of degenerate manhood. A creative woman’s movement, if such an idea can possibly be conceived, would have introduced something new and hopeful into our political life. It might, at least, have tried to resuscitate the best in our pre-democratic past... [or] shown its power by initiating reforms that are peculiarly within woman’s province. (p. 75)

Ludovici then gave examples of needed reforms that women should have initiated: reforming patent foods and medicines, midwifery practices and other feminine concerns; but instead, they made a bold grab for power and only tried to effect “Puritanical reforms, which were frankly hostile to men” (p. 76). He predicted this ongoing attempted-coup would only accelerate, as Feminist spinsters and disgruntled wives recruited ever more girls, young women, and feminized men into their camp. Having abandoned their posts in the kitchen, and failed in their opportunity to institute needed euthenic reforms, he predicted that the patent food industry would fill the void left by domestic women by soon establishing a “standardized and complete food, containing its own correctives for failing digestion...probably in tabloid form and requiring no further preparation whatsoever” (p. 76). This bland mush would keep people alive, but would also lead to further physiological deterioration, to the point that intestinal operations would become as common as dental cavities.

Men would be further emasculated and domesticated along feminist lines, to the point where “manliness will be limited to military courage and proficiency at sports” as “Aristotle said such men always would” (p. 77). Meanwhile, women would push for “the rights of females in every branch of industry, commerce, and the professions, accompanied by such a multiplication of ready workers that the chronic competition between the sexes would become acute” (p. 77). This in turn would lead to the complete appropriation by women “under Feminist guidance” of entire industries and sectors of the economy, in which men would only have the lowest-paying menial jobs. The ultimate effect was a world-wide schism into two camps: male and female, entirely separated and functioning as domestic rivals. After sporadic “riots and savage street-fighting,” which women always won, “owing to the fact that moral indignation will always be on the side of the women” (p. 77), men lost ever greater control to the women’s faction, until women finally gained complete mastery of all capital and positions of responsibility in industry and government. In all this, science and engineering was complicit in

offering a host of machines and appliances so advanced and easy to operate and maintain that “a team of intelligent monkeys will then be adequate for the productive work of the nation” (p. 79). He cited the ease with which women and even girls replaced some five-million British men called to military service in World War I. Even more alarming, the rapid technological progress that allowed the rapid mechanization and industrialization of warfare that ultimately won the Great War, eventually produced advanced armoured vehicles and death-machines that finally allowed women to replace men as soldiers, sailors and even military leaders, “who will not need the courage and endurance of the male in the face of the foe” (p. 82).

Contemporaneous with these dire developments, celibacy among women would reach a critical point where the population began to decline precipitously. First, subsidies and incentives were offered to persuade Feminists to procreate in the natural way, but legal changes were made that allowed women to not cohabit with men; they only needed men as inseminators. Gradually, artificial insemination replaced natural male-female congress, and eventually legal decrees criminalized all sexual relations, lactation totally disappeared, and breastfeeding came to be regarded:

“very much as cannibalism is to-day. Pictures and statues of women will be mutilated, destroyed or hidden from view, just as a certain class of [male] Greek statues are now mutilated and concealed; while the ideal of beauty in the female will be a creature completely flat-chested and with the hips of a youth. Girls and women who happen to throw-back to the ancestral type will be pitied, and may even be operated upon, just as people with facial blemishes are now.” (p. 81)

Thus, conscious artificial selection according to Feminist ideals, as well as a rapid form of Lamarckian degeneration through disuse, and even widespread plastic surgery, would accelerate pre-existing or ongoing dysgenic physiological changes until it became a tide of deterioration resulting in an androgynous, amorphous mass of sub-humanity. Curiously, before reaching the ultimate climax in his war of the sexes, Ludovici eased-off the prophetic dystopian gas-pedal, to admit that his Feminist future would include some decades of “shameful lapses into matrimony and natural fertilization” resulting in modern *Lysistrata*’s “burning with indignation once more” and crying aloud:²⁰¹

I can no longer hold the minxes. They are running to the men; they are deserting.
– Aristophanes, *Lysistrata*, 11. 718-9. (p. 84)

²⁰¹ Ludovici provided the original ancient Greek here, then translated into English using his acquired polyglot skills.

But these momentary lapses of Feminist ardor were not enough to reverse the inexorable tide, and soon “the aggravated horrors of childbirth” and the “alarming increase in the performance of the Caesarian section,” along with an “intensified loathing of men” produced “such a clamour for extra-corporeal gestation” that science and medicine was badgered into developing such a technique to placate the angry women who demanded it (p. 85).

Ludovici blamed “men like Alexis Carrel, Ebling, and Fische” (p. 85) for the pioneering science required to develop and perfect “a means by which the fertilized ovum will be matured outside the female body” (p. 83). At first this was accomplished by transplanting the zygote into a cow or donkey, resulting in progeny that suffered “increased besotment, and intensified bovinity or asininity” depending on the surrogate animal-mother used. But finally, the last significant generation of male scientists was able to achieve complete independence from any necessity for a living uterus. Ludovici credited J. B. S. Haldane for his novel terminology given to this ultimate reproductive solution that was to have such a dire future impact in the hands of the Feminist Master-Gender who were to exploit it in their expanding ‘Final Solution’ to the Male Question:

Thus extra-corporeal gestation, or “ectogenesis” (to use a word coined by Mr. J.B.S. Haldane for the purpose) will become a possibility, and the Feminist ideal of complete emancipation from the thralldom of sex will be realized. Fresh legislation will be passed, which will make it a felony for a man to give a woman a child in the old corporeal sense. (p. 84)

The ruling Feminist government would also setup publically-funded centres to ‘grow’ children for the working-poor, and even destitute women would be provided with ectogenetic children rather than relying on a man in the Feminist Welfare State of Ludovici’s dysgenic timeline. He asserted that these future discoveries were already “potential in the scientific achievements of our day, and implicit in our values” and only required refinement, “together with the continued anti-sexual and anti-masculine bias of Feminism” (p. 84). Ludovici marked the realization of this ectogenetic frontier as the “final blow for corporeal sex” and the “Zenith” of “triumphant Feminism” (p. 84). However, this was only a pyrrhic victory for women, as in “only a few generations” ongoing dysgenic artificial selection and accelerated Lamarckian degeneration would produce a society in which:

a kind of woman will appear the only vestige of whose sex will be her smooth face and primary genital glands [ovaries]. Men will then be frankly regarded as quite superfluous. Having lost their powers, first as spiritual and bodily leaders, secondly as masters and lovers, thirdly as skilled craftsmen and soldiers, and fourthly as specialized workers, their social use will have lapsed, and their numbers will begin to be felt as a source of irritation and even indignation. (p. 85)

Thus, with the new autocratic regime in control of all aspects of the economy, industry, the military, legal, political and medical-scientific apparatus of the State, it was only a matter of time before some sort of *Kristallnacht* event occurred. In Ludovici's dysgenic time-line it was a severe food shortage that sparked the conflagration, followed by a public panic, rioting, and general chaos; finally resulting in a genocidal pogrom that memetically presaged the Nazi 'T-4' euthanasia campaign for the elimination of the *Mindervertig* (useless eaters) begun under the cover of war in late 1939, which was itself a Nietzschean prelude to the Final Solution:

suddenly a few of the leading women will perceive with apocalyptic clarity not only that the superfluity of men has become a burden on the community and a menace to the food of the children, but also that a reduction of their numbers to the barest minimum indispensable for the purposes of fertilization would be a two-fold boon—it would relieve the food-crisis both for the moment and possibly also for the future, and obviate for ever the danger of a masculine or slave rising. (p. 86)

In Ludovici's fictional scenario it was not the Feminist State that led the populace into mass-murder, but quite the opposite; the State was pressured into passing legislation allowing for the "systematic slaughter of males" until finally forced to protect a small cadre of sperm producers (p. 86). Ludovici allowed for just five men for every thousand women, and laws were passed to not exceed or fall below this level. Superfluous male babies would be slaughtered annually, along with adult drones past their prime and youths who failed to live up to their childhood promise "in meekness, general emasculation, and stupidity" (p. 87). He presciently foresaw the development of a scientific technique to determine the sex of the ovum, thus allowing for the annual slaughter of babies to be avoided, as only a small portion of all male zygotes would need to be born and reared.²⁰²

The ultimate irony and punishment, however, was reserved for the Feminist queens and their army of female 'worker bees' who remained after the 'Androcaust.' The last few male drones had long-since been bred for servility and lack of wits, so the Feminist-only society of the future petrified scientifically at the highest state achieved by the last great generation of male scientists "as it is not in woman's nature to be inventive or to make great discoveries" (p. 88). All too late, the proles of the declining female society realized the barrenness of their existence, and their vain distractions and vapid entertainments lost their lustre. The 'Feminazi' regime foolishly enforced total asexuality, extending even to prohibitions on romantic literature, poetry, plays and art, or any kind of feminine

²⁰² This technologically-fulfilled prophecy is rather ironic considering the most common use for the procedure today (as well as for many abortions), is to select *for* males over females, especially in mainland China and increasingly in India as well.

adornment of the body. Many toiled futilely in a pandemic of existential angst, wondering why they had traded their corporeal existence in a dysgenic Faustian-exchange for what ended-up as a spiritual nightmare, living as shades or fallen angels and finally realizing “to have planned and organized an aesthetic phenomenon such as life without retaining its aesthetic side, was a tragic and utterly brutal blunder” (p. 89). In a final climactic scene of Wagnerian tragedy, Ludovici’s dysgenic time-line ended with a remorseful, neutered and doomed sisterhood cursing their 20th Century Feminist forebears:

By the time, however, that this inevitable discovery is made—the only great discovery that an exclusively female community is ever likely to make—those who will be responsible for it will look aghast upon their own and their sisters’ bodies; and, perceiving with horror the impossibility at that late hour of recovering the functions, powers, and bodily parts, which centuries of disuse and degeneration will have withered to nothing, they will, if they still have enough spirit left, execrate and curse the memory of those who first envisaged their state as a future possibility, and who, having once conceived it as desirable, deliberately planned and schemed to bring it about. “Almighty God,” they will cry in desperation, “mercifully spared the bees our consciousness!” (p. 90)

Future Woman: Through a Eugenic Lens

After the sweeping theatrical tragedy of Ludovici’s dysgenic apocalypse in the previous chapter, Chapter IV, “Future Woman” is rather anti-climactic. Ludovici stressed the dire need to combat the body-despising values of Puritanism and the huckster propaganda of Feminism, for the ultimate progress of all mankind, but also for the healthy future of women. He promised he was in the fight for the long-term despite numerous recent set-backs that had discouraged many of his “pro-feminine” compatriots in the anti-Feminist struggle:

It is for this reason that there is still a fight to be fought with Feminism, and we ourselves, though heart and soul pro-feminine, still remain active anti-Feminists... Now that women have the vote and sit in Parliament, now that they have practically the whole of the Press behind them, their battle is surely won, [surely] anti-Feminism is a lost cause! [But], if anti-Feminism means... prevent[ing] it from culminating in some or all of the changes outlined in the previous chapter; if it means a struggle to maintain the natural relations of the sexes, together with the normal functioning of male and female in reproduction; and if it also means the retention of the family, the home, and some beauty in our social scheme, then it certainly cannot yet be a lost cause... (p. 92, 93)

Ludovici then began his alternative eugenic timeline, reminding readers that “the future is in our hands and we can mould it as we will,” but if we do nothing the dysgenic timeline of Chapter III “or, at all events, very essential parts of it” will come true without any special effort, already being potential

in existing tendencies (p. 94). He warned that his preferred future would “demand from us not only the hardness and determination of iconoclasts, but also the creative gifts, patience and constructive energy of builders” (p. 94), requiring both a destruction of present tendencies and a recovery program that would take generations of effort and rebuilding; and cautioned that we were at the “11th Hour.”

The primary remedy posited was the elimination of the body-despising values that infected and weakened Western society as a result of modernity, especially Puritanism and its recent analogue, the Feminist movement. He pronounced this social reform more important than any eugenic legislation; indeed it would make eugenic legislation largely redundant and unnecessary, except as a short-term corrective for the already seriously afflicted. Indeed, without this prerequisite change in values, “Eugenic legislation will always be an up-hill fight” (p. 95). He declared it the duty of everyone, “not only of condemning his neighbor but also himself, if he is physiologically depraved; but this each of us will learn to do,” developing a healthy shame for infirmity, defect, or artificial-aids (p. 96).

The second, related Herculean task was to “destroy the value which makes it noble, virtuous, and desirable to sacrifice the greater for the less” (p. 96). Ludovici again chastised Dean Inge for his “confusion of thought” in supporting this dysgenic morality, while simultaneously evangelizing for eugenics. He argued these values were mutually exclusive and offered *his* gospel for human ascension:

When once you admit the principle that it is noble and virtuous to sacrifice the greater for the less, the desirable for the undesirable, the corn for the weeds, the god for the mob, you necessarily invite the condition[s of] to-day. Everything that is best in the nation, all those elements on which the successful survival of our race depends, are being penalized and sacrificed for the sake of the defective, the lunatic, the crippled, the incurable, the half-witted, and the blind. Honours are acquired not for promoting the multiplication of the sound and hale, but for promoting the comfort, ease and welfare of the physiologically and spiritually hopeless. This value must go... This absurd and degenerate value must be transvalued into the following: *It is noble and virtuous to sacrifice the less for the greater, the rubbish for the precious.* When once this transvaluation has been effected, we shall begin to ascend. (p. 97)

The third remedy was to reformulate the “modern conception of masculinity” that limited masculinity to “proficiency in sports and bravery in war” (p. 98). This modern attitude, when added to the tragic loss of the crème of British manhood in the Great War, now also threatened to consume the survivors, since though “acceptable to women, because it makes for a breed of men who are easily led and still more easily misled; it is fatal to civilization” (p. 98). This tripartite “recasting of our values” and the discipline to see the cure through to its fruition was our only hope: “Nothing else can save the world and nothing else can put woman back in her place—which is only another way of saving the world. Every other remedy is quackery” (p. 99). He sketched a new pantheon of “manly men”

from the highest: “the ruler who gives us a new order,” to the lowest “husband who fills a woman’s life and whom she finds it a joy to obey, and no indignity, no hardship to serve” (p. 99).

Ludovici charged science with the mission of researching the secrets to regeneration of the human race before it was too late, pronouncing it “the only kind of scientific research that can possibly be fruitful” for the dire problems of the present. He dismissed the “journalistic scoffers” who charged science with pursuing “that mythological monster the Superman” and argued instead that he was merely trying to recover the sort of mortal men that made Britain great, as history had recorded; thus he was merely advocating for “a Masculine Renaissance” (p. 100).

As he did in Chapter III for his prediction of the darkest timeline, Ludovici used the last ten pages of *Lysistrata* to prophesize for his preferred future. He admitted he could not foretell what would actually happen, but then “venture[d] to suggest the following”:

We may expect a total and complete exposure of the shallowness, impracticability, and danger to national survival of Democracy as we now understand it, and therefore the evanescence of democratic forms of government. The great suffering and chaos to which such forms of government lead will probably leave a deep impression upon the soul of humanity, and this impression will help the leaders of the Masculine Renaissance to remodel the national life without having recourse to the discredited and preposterous vote. (p. 100)

On this score, Ludovici and his original readers only had to wait a few years to see widespread progress on this front: in Stalin’s Russia, Nazi Germany, Imperial Japan, and to a lesser extent, in Fascist Italy. It is also interesting to note that in all of these totalitarian States, his second suggestion, the “revival of agriculture and craftsmanship” (p. 100) and the generalized euthenic value of hard manual labour to “arrest the dry-rot in spirit and body” (as perhaps best encapsulated in *Arbeit macht Frei*), was a common meme touted for both the elites and for remedial treatment of the undesirables.

Despite his earlier denial of pursuing “the Superman,” Ludovici predicted far-reaching boons for society when he prophesied that science would re-concentrate its efforts “in the direction of restoring to man bodily perfection and to *extending the range of his faculties.*” (p. 101) This restoration was to include “powers like clairvoyance... direct healing...the mechanism (if any) behind telepathy...and the peculiar magnetism of cultivated will-power” and, for the sake of future generations, “discover an educational technique by which these properties and powers may become more general, more efficient, and more far-reaching” (p. 101). Some of these goals *were* pursued by autocratic states in their quest for a new Praetorian Guard for a New World Order: such as in Hitler’s SS, or the ‘New Soviet Man.’ Many of these ‘renaissance men’ were willing to die for leaders who had mastered that “peculiar magnetism of cultivated will-power” (as in Hitler’s *Triumph of the Will*).

Some of Ludovici's other predictions for future-science were also to be fulfilled: seeking the mechanism behind heredity, and though it never achieved to establish "the principles whereby family and stock qualities might be brought to perfection, techno-science became remarkably adept at "sift[ing] the mass of evidence and facts collected by modern science" (p. 102). And with the new social sciences and radical ideologies, his hopes of "coordinating religion and naturalistic truths" to create "a new faith, and a new metaphysic, purged of the sick and degenerate elements of former religions" was also attempted almost everywhere that democracy was purged from the popular consciousness (p. 102). His foresight of a new aestheticism and especially the removal of Puritanical prohibitions against displaying physical beauty and seeking bodily perfection were also to be major thrusts of future movements for bodily enhancement; but not merely in totalitarian regimes, and certainly not always in ways that he would have approved, but a powerful trend nonetheless.

Next, Ludovici predicted a demographic shift away from "large hypertrophied cities and towns" (as also predicted and fleshed-out by George Godwin in *Columbia, or the Future of Canada*, 1928) to a rural or pastoral existence where agriculture and craftsmanship would feed and provide for a thriving, but greatly reduced population:

thinned by rigorous selection at birth. Abnormal, crippled, defective, incurable, and undesirable people will no longer be allowed to grow up. Their uselessness and their danger as a burden and an eye-sore will be recognized. The old belief in the extreme sacredness of every living creature ... will vanish, in order to make way for a valuation based on quality of mind and body. (p. 103)

This prediction too, was also realized in a fashion: from Nazi-occupied Eastern Europe to the killing fields of the Khmer Rouge, to the ethnic cleansing of post-Soviet Yugoslavia.

Ludovici also foresaw that "the regeneration of man will immediately transform woman and her position" and as she recovered her own physiological perfection she ceased to despise men, and recovered the "lost joy of looking up to her mate" (p. 103). Man's new mastery would sooth her anxiety, restore her serenity, and her interest in outside pursuits and empty social-distractions receded as home-life became the focus of her rehabilitated life. These changes would render women's present claim to equality with men as null and void, with "its absurdity made everywhere visible to the eye of onlookers" (p. 104). However, women faced a further process of transformation and purification, a worldly 'Purgatory' of sorts, "before woman is sound enough in body and mind to give birth to this new breed of masculine sons" and recovered "the ecstasy of old, in all her functions" (p. 104). In this reformative process, women were "helped by her men of science," discovering the proper diet, proper routines for pregnancy and childbirth, and the proper care and maintenance of body systems.

Again Ludovici argued these values and consequent lifestyle changes would be faster and more effective in restoring bodily normality than any “legally enforced Eugenics” (p. 105). He cautioned that the specific suggestions he made in Chapter II with regard to eugenic and euthenic improvements may not immediately bear fruit, or may require modification, but he assured readers that if these ends are “assiduously sought, they cannot fail to be reached sooner or later” (p. 106). See the Meme Map for *Lysistrata* in Figure A3-19 on the following page.

The Fine OP' Solution

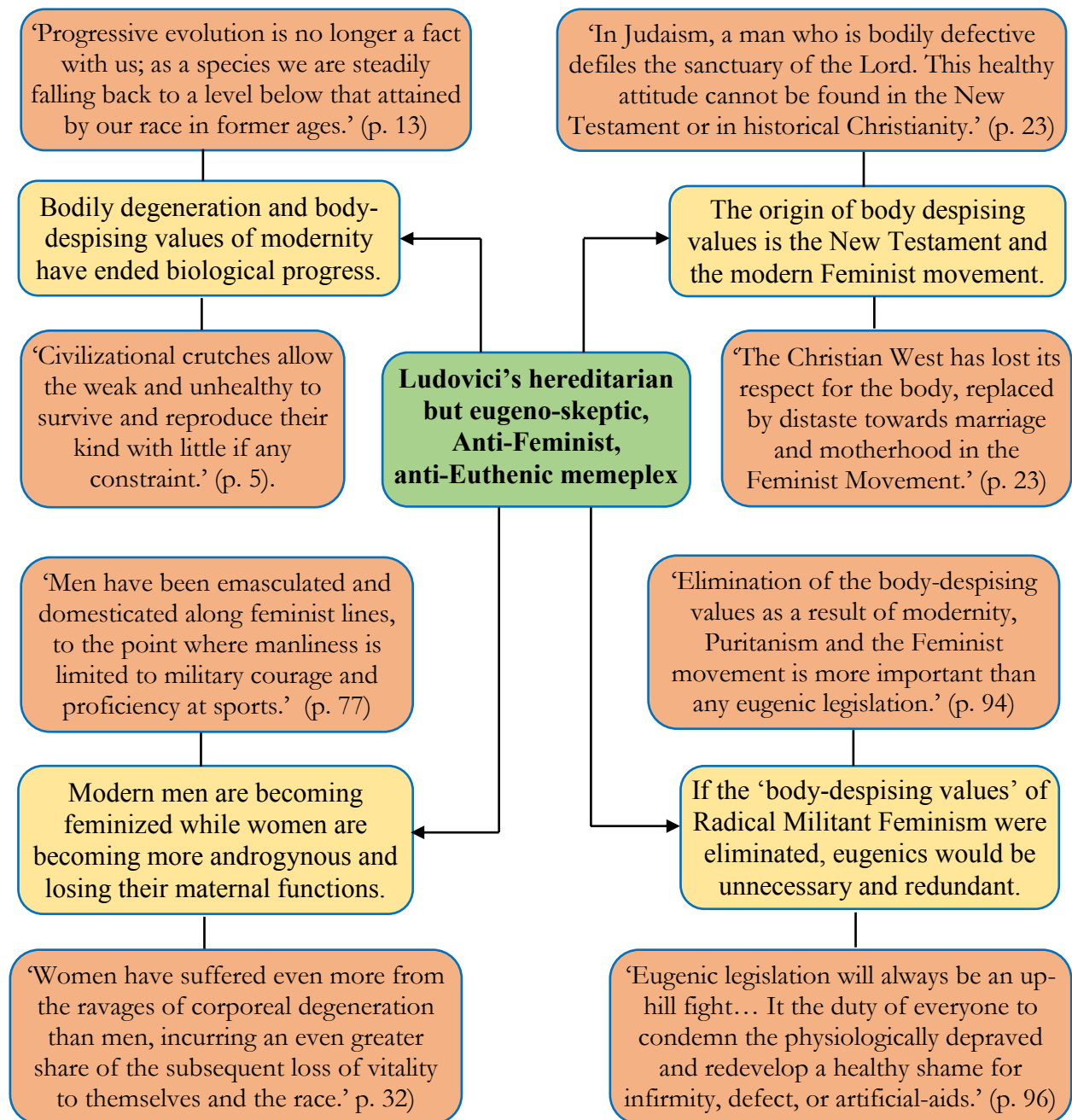
Meanwhile, “the elimination of the bungled and the botched, and a rigorous selection of the newly-born on qualitative lines” (p. 106) would offer immediate relief “in all over-populated districts” and early marriages flourished again. Subsidies and assistance would be provided to eugenically promising young couples and the “rich will seek distinction in endowing desirable people instead of endowing wrecks, cripples and incurables” (p. 107). Once these necessary reforms were implemented, life was ordered on a new and “much happier scale” and the re-established one-to-one ratio of males to females eliminated unhappy spinsters, and prudent measures were enacted to control the population below its natural carrying capacity. Ludovici recommended abandoning contraception in favour of “controlled and legalized infanticide” (p. 107), allowing for periodic adjustment of standards governing infant selection, which would gradually “lead to an improvement of the race” (p. 108).

Foreseeing the possibility of future wars and the “greater danger attending male pursuits” to reduce the male-to-female ratio below optimum, Ludovici also recommended the revival of the old practice of concubinage practiced by the elite men of ancient cultures (p. 108). But rather than being “hidden, secret, sterile and condemned” as they were now, concubines would be productive and “protected by public opinion and by law.” All women of marriageable age were withdrawn from “industrial, commercial and public life” and returned to practice the old industries of the home.

Medical science switched from managing the unfit or curing the diseased in hospitals, alms houses and other public institutions, to promoting health in the home. Ludovici even predicted the disappearance of formal schooling for most children. Instead, most children and youth became apprentices to their parents or other family members, with only the most promising receiving specialized education as leaders or training in the new mental faculties that developed as bodies and minds improved by selection and elimination of the inferior:

Education outside the home will be regarded—at least for boys and girls under fifteen— as a *pis aller*, more or less as we to-day regard the various arrangements... made for orphans. (p. 109)

Partial Meme-map of Ludovici's Aristocratic Anti-Feminist Worldview in *Lysistrata*



Color Code:

Meme clusters

Memes or small clusters

(Blue borders signify a patriarchal hardline hereditarian paradigm)

Figure A3-19: A partial meme-map showing some key memes and meme-clusters in Ludovici's *Lysistrata*. Although Ludovici mentioned eugenics several times in both negative and positive thrusts, he deemed it secondary and even redundant to elimination of the body-despising values of modernity, the degenerative effects of misguided charity, modern medicine and the Radical Feminist movement.

Having thus cured the false values of Puritanism, and restored the degenerated bodies, misguided ideals and dysgenic directions of modern society under Militant Feminist influence; Ludovici hailed the advent of a New Millennium, sketched in the last paragraph as a utopic denouement of *Lysistrata*:

Meanwhile, with improved bodies and brighter wits, women will share with men the joy of the developed faculties which, as we have pointed out, it will be the object of science to realize; and a richer and more eventful intellectual and spiritual life will be led, because humanity will be able to apply itself to the pursuit of ever loftier interests. We shall have greater arts and greater religions, deeper thoughts and a mightier grasp of reality; because, having mastered our bodies and solved once more the secret of their harmonious working, we shall no longer be in the difficult dilemma of mortals, who, with neglected and badly functioning physiques, try to anticipate here on earth the pastimes and pursuits of the immortal world. (p. 109, 110)

Contemporary Critics and Future Echoes

A number of contemporary reviews of *Lysistrata* have survived the transition to the digital age, along with one recent review (Ferreira, 2009) of five volumes featuring Haldane's conception of *ectogenesis*, when the bulk of the *To-day and To-morrow* series was republished by Routledge. In addition, Dora Russell's response to *Lysistrata* will be considered in detail in my separate review of *Hypatia* (1925).

Of greatest interest for this review, is the full-page-plus write-up in *The Eugenics Review* by F. C. S. Schiller (1925). Not only was Schiller the author of the closest series-antecedent, *Tantalus* (1924), but he also penned *Cassandra, or the future of the British Empire* (1926) as a follow-up. He also contributed numerous reviews of other series volumes in *The Eugenics Review*, the official journal of the British *Eugenics Society*. But nobody should be under the impression that Schiller was a 'skill' for the series, even when the topic was eugenics and the author of the work reviewed could be considered an ally of sorts. In his review of *Lysistrata*, Schiller toed the line between detached amusement and barely-concealed scorn through most of his review, summarizing Ludovici's obsession with physiological degeneration, its purported causes, and the essential predictions of his dark and eugenic timelines. But when it came to eugenics as a brand, Schiller took Ludovici to task, and he dropped the kid-gloves of professional courtesy:

Towards eugenics, or at least toward the policy of the Eugenic Society, Mr. Ludovici preserves an attitude of haughty aloofness. He is fond of girding at 'Dean Inge' (p. 17, 18, 19, 20, 124), and holds that his own ultra-Nietzschean 'transvaluation of values' will render eugenics superfluous... In view of the character of his proposals, it is perhaps just as well that Mr. Ludovici should not be identified with serious eugenics. He himself at times betrays a consciousness that he may be thought a bit fantastic (p. 99), and criticism need hardly labour the point. (p. 112)

As for Ludovici's coverage of the 'Woman problem' or his analysis of "Woman's Future," Schiller was dismissive of "Mr Ludovici's fancies" and his "contribution to its solution" (p. 112). He accused the author of "overlooking the really serious and pressing problem" as to the 'mother of tomorrow':

For the first time in history childbearing is becoming a *fully voluntary* function. What will the consequences be? What sort of women will in future consent to become mothers? Our present social organization would justify the answer—*none but the feeble-minded!* And even if society grows intelligent enough to avert this, it remains a question whether it should attempt to revert to compulsion (as reactionaries and authoritarians will instinctively demand), or trust to natural selection to bring the maternal instinct (which is at present pretty feeble in many women) up to its required strength. It seems a pity that Mr. Ludovici should neglect this urgent problem, and spend his time upon discussions which will seem to most little better than nonsense.
F.C.S. Schiller. (p. 113)

It would be easy today to dismiss Ludovici as a crank, and *Lysistrata* as merely flights of fancy by a bitter, aristocratic, anti-Feminist; particularly on the central issue of "woman's future and future woman" where the bulk of his pronouncements are iconoclastic and patently ridiculous to post-modern readers. As for Ludovici himself, this reviewer is tempted to make a comparison with Dr. John H. Kellogg (of Corn-Flakes fame), head of the Battle Creek Sanitarium, a stalwart of early American eugenics and the founding-father of the *Race Betterment Foundation*; especially as he was parodied by Sir Anthony Hopkins in the star-studded cast of the movie *The Road to Wellville* (1994).

It should be noted that my library copy of *Lysistrata* was very well-used during the period of the mid-70s to mid-90s, as evidenced by the vintage stamp-page in the back, before the library system moved to digital tracking of check-outs (it would be very useful for scholars like myself if all the borrower-record pages had been retained from the beginning of its circulation). This was in stark contrast to many of the other series volumes studied, some of which have only been checked-out two or three times in 75-years. I suspect that this book was used by many post-modern feminists to write scathing reviews for a woman's studies or gender-studies course, but few of these would have been focused on the eugenical content of the work.

But when one reads *Lysistrata* in the post-WW II era, and transposes Jews for males, Aryan race-hygiene for anti-male pogroms, and the Nazi regime for the radical Feminist regime of Chapter III, the work takes-on a chillingly prophetic quality that few other volumes in the series approach (though Dr. Norman Haire's *Hymen* comes close), and none consistently exceeded.

The Feminist Euthenics of Dora Russell's *Hypatia, or Woman and Knowledge* in the *To-day and To-morrow* Series

Hypatia (1925) by Dora Russell (nee Black, 1894 – 1986, daughter of Sir Frederick Black, and second wife of philosopher and fellow-activist Bertrand Russell), was intended as a feminist response to *Lysistrata* (1925) by Anthony Ludovici – see separate review in this appendix. Dora Russell was the first female author for the *To-day and To-morrow* series, and one of only half-a-dozen women who contributed a volume to this influential series of just over a hundred titles. She received a first-class education in Britain and Germany, winning numerous awards and distinctions, including a scholarship in modern languages to Girton College, Cambridge, where she joined the *Heretic's Club*; and where J. B. S. Haldane delivered the lecture that became *Daedalus* (1923), the inaugural volume of the series – see separate review in Chapter III. Refer to *Hypatia* title-page and preface in Figure A3-20, below.

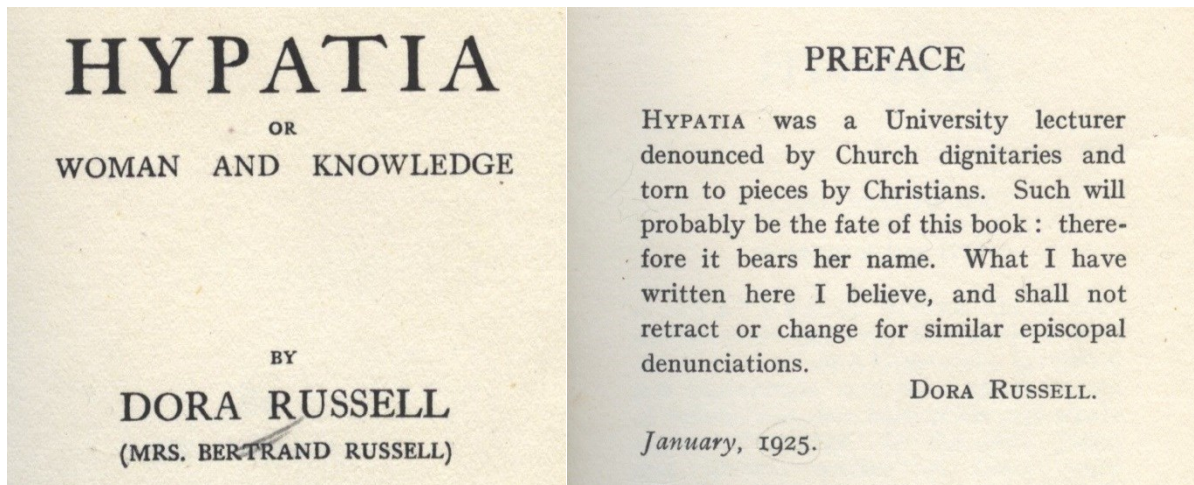


Figure A3-20: Frontispiece for *Hypatia* (1925) and the short prophetic preface. Both she and her book avoided the fate of its namesake, eventually reaching its fourth impression in 1928.

As was true of the pairing of J. B. S. Haldane's 'optimistic' *Daedalus* (1923) and Bertrand Russell's 'utterly pessimistic' *Icarus* (1924); the stark contrast between the aristocratic, anti-Feminist *Lysistrata* and the pro-Feminist, Fabian-socialist *Hypatia* was designed to provoke controversy and debate. There was a definite animosity, as Dora Russell never refers to Ludovici by name, only as "the author of *Lysistrata*." In this quest for conflict, the pairing succeeded as intended, and this time the divide was on gender lines, in addition to political ideology and scientific outlook. Dora Russell's effort is typical of the environmentalist standpoint with its strong support for euthenics (environmental improvement) that was common among Victorian reformers and early feminists in Britain. This

socialist paradigm was almost diametrically opposed to the strict eugenic selection and systematic elimination of the poorest classes, the unfit, insane and morally depraved as advocated by *Lysistrata*.

Mrs. Russell, like Haldane and F. C. S. Schiller (*Tantalus, or the Future of Man*, 1924), made liberal use of classical Greek characters to paint ready-made allusions to their modern facsimiles: *Artemis* for single girls, *Medea* or *Hecuba* for married women, and *Jason* or *Admetus* for men. This is one arena where Russell's upper-class origin and classical education differentiated her from the working-poor or lower-middle-class women she often championed; most of whom never experienced formal schooling beyond the elementary or early secondary level.

In the opening chapter of *Hypatia: "Jason and Medea: Is there a Sex War?"* (p. 1), Russell compared the eternal battle of the sexes to the recent Great War, describing it as a large-scale conflict carried on by large groups and whole classes of society in entrenched positions, with little room for compromise or reform. Men were aggregately grouped as oppressive, reactionary forces aided by the "powers of kingship and the State," who were opposed to the asymmetric challenge to male power posed by the "turbulent and insurgent female" (p. 2):

Medea, driven mad—like so many able and remarkable women—by the contempt and ingratitude of men as individuals or in the mass, and aware that the law was a mockery where she was concerned, expressed herself in savage protest after the manner of a militant suffragette. (p. 2)

Russell sketched the heroic struggle of these early female guerilla-fighters: to get the vote for women, for a good education (beyond elementary school that terminated at about 14-years of age), and to gain a beachhead in the work-world beyond the limited options traditionally open to women. She also made allusion to the class-war of socialism, but never mentioned its more violent and deadly analogue in Bolshevik Russia or its post-World War I imitators in central and eastern-Europe. She described the escalation of this conflict in recent decades, from mild civil defiance to chaotic street-battles, and scoffed at the painfully slow accession of rights afforded to women, beginning with older married women "who were deemed to be less rebellious" and the token bestowing of a "few Dames and M.B.E's as a reward for our services in helping the destruction of our offspring" in the war (p. 3).

Having accorded a shaky truce after the war, the male antagonist "took to sniping" and thus began the slow attrition of gains women had made during the war began, as returning soldiers now displaced women from their wartime jobs, and this increased competition in a contracting economy forced women back to their subordinate position of old. She lamented that the male power-base refused to see the kernel of this struggle as a symptom of over-population; instead they focused all

their attention on the feminist threat. Directly contradicting Ludovici, she held the British Press as being complicit with Jason in the post-war power-struggle. She remarked on the great opportunity lost by the first Labour Government (under Ramsay MacDonald - in power from January to November 1924) in not embracing the feminist cause, as a way of bolstering its tenuous support to avoid being swept out of government (by the Tories of Stanley Baldwin, championed by Ludovici). Unlike *Lysistrata* though, Russell did not even consider the limited opportunity for emigration to the “self-governing Dominions” (like Canada) as an option for women. Indeed, the world-view of *Hypatia* is almost entirely Anglo-centric, and the only foreign characters discussed were the Greek heroes and heroines of ancient Greece and its mythos, and the imported philosophy of Rousseau and Voltaire.

Perhaps to avoid any accusations of political partisanship, Russell offered the explicit disclaimer that she lumped all feminists into the Labour movement, and she insisted that in the future it would be the “progressive working woman” (p. 7) rather than the established matrons of the middle-class that would carry the torch for women’s rights and democracy. She also accused “the author of *Lysistrata*,” as an “inveterate anti-feminist” and an “avowed anti-democrat” (p. 8), with excluding those elements of society below the middle-class from any progressive role, except as targets for oppression and selective elimination. Countering Ludovici’s bold claim about feminists being the heirs to the Puritan tradition of old, she blamed the “medieval monks and bullying Puritan fathers and brothers” (p. 8) for so firmly instilling these ascetic values in women, in an indignant and sarcastic rebuttal of the many libelous charges made by Ludovici in the court of popular literature in *Lysistrata*:

We are to blame for the industrial revolution, in that we let weaving, spinning, milling, and baking go out of our hands. We are to blame for the iniquities of doctors in that we did not maintain our position as the dispensers of healing potions and simples. We are to blame in that we have not learned to bring forth our children without pain, those children whose brows bear the marks of obstetric instruments that were used to spare their mothers, and whose lips have not been laid to those inhuman mothers’ breasts. (There are no scars of war, O Jason!) Where is salvation for us, and how shall we rid us of the burden for our iniquity? (p. 9)

Russell continued her parody of Ludovici, by parroting a partial summary of his chauvinistic suggestions for the euthenic and eugenic remediation of women under strict male control:

We... must humble ourselves once more and take upon us the whole duty of woman. We must use our votes to restore aristocracy and take the food out of tins; spin and weave, no doubt, all the while we nurse and bear our yearly child, delivering it over to infanticide if necessary, since birth-control is artificial and displeasing to the male. In our leisure moments—of which, doubtless, we shall find many under this humane regime—we are to discover by what means of diet, or exercise it may be, we can fulfill our maternal functions with pleasure instead of suffering. A joke, you say? (p. 9, 10)

Rather than naming Ludovici, or his idol Nietzsche, Russell labeled J. J. Rousseau as the original modern culprit in the war between the sexes, being the poorly-educated woman's ersatz for Voltaire. Woman swallowed his "Voice of Nature" and soon found herself ridiculed for her attempts to raise herself out of philosophical ignorance and "take a part in public life" (p. 10). This Renaissance of male oppression was compounded by the abuse women suffered from the unforeseen consequences of rapid industrialization and technological changes, and the demographic shifts that were thrust upon her sisters. She sarcastically summarized the additional, often contradictory and completely irrational charges labelled against women in the intervening years, as recapitulated in *Lysistrata*, and rhetorically asked if there was *any* truth to the charges levelled against Medea by Jason; before preparing to "summon the inquiring intelligence of Hypatia to find us a way out of the intolerable tangle in which their quarrelling has landed us" (p. 12).

Artemis: *The Early Struggles of Feminism*²⁰³

After the initial chapter in which she listed and refuted the charges *Lysistrata* had laid at the feet of women, Russell went on to detail the generational struggles of the feminist movement. She began with the older generation of women (*Artemis* in Chapter II) who had paved the way, and then the new breed of women who would form the core of the movement for the near future (*Aspasia* in Chapter III), and next to a discussion of feminist mothers (*Hecuba*) in Chapter IV; finally culminating in a brief consideration of the men of the future (*Jason* and *Admetus*) in the closing chapter.

Artemis began with the bold revelation that "ignorance and beauty were the two qualities most admired in women" when the modern feminist movement began at the apex of the Victorian-era (p. 13). Russell reminded her younger readers that it was "customary in those days to make fun of old or ugly women and to scorn those whose showed any sign of intelligence," and further decried the rapid transformation of a young, blushing bride into "a gentle and submissive matron" within a year due to the rough methods and browbeating of Jason (p. 13). She argued that the greatest handicap faced by her Victorian forebears was the perpetual ignorance and enforced purity of women in matters of sex and biology; stemming from their woefully inadequate education in the practical matters of marriage and the rearing of children. This enforced ignorance was continued by the dearth of sexual and maternal guidance imparted when they reached sexual maturity, and was further restricted by prudish Victorian mores, even when they became wives and mothers. She placed the blame for this enforced

²⁰³ In the pantheon of Greek gods, Artemis was a daughter of Zeus and a twin sister of Apollo. She was the patron goddess of the hunt, childbirth and the protector of girls and their virginity; and may well be the original feminist.

naïvety on the “ascetism of the Christian religion” (p. 14), and she hailed the barbarian Norsewomen of old, who “enjoyed a rough equality with their husbands” and who gave early British Anglo-Saxon society such vitality and vigour, as ideological idols. Then the evangelizing Christian monks converted the pagan populace and the women lost their fierceness, power and influence in society:²⁰⁴

Quenched were the fires of Brunhilde, her sunlit rock deserted. Agnes and Mary, timid and pious, sat cooling in the shade. But for meekness and maternity, the early days of ascetism might have been a crusade to destroy that temptress–woman. Barely allowed a soul, she slipped through a life of oblivion, praying that it might be a pretty crown with which Heaven would reward her patience and submission at the last. Then came the Puritans and denied her even that, substituting ugliness in this life as well as the negation of the body... rendered oblivious to the horrid spectacle of their figures by the still more horrid chanting of their nasal psalms. (p. 15, 16)

A brief respite during the Enlightenment was followed by a new anti-feminine pogrom in the 19th Century, culminating in the soul-crushing prudish morality and superstition personified by the public persona of their matronly *Regina*. It was no wonder then, that women adopted the attitudes and regimes of barren spinsters; instead the marvel was that they found the courage to rebel at all. Russell dismissed the charge that these feminist pioneers were willing agents of Puritanism, as alleged by Ludovici. Instead she made the counter-claim that these votaries were modern analogues of the temple maidens and priestesses of Athene, Artemis and Dian, who unlocked for their followers the gates to the classics, science, medicine, and world history which had been lost to womankind in the Dark Ages of Christian ascetism and male-oppression. These unwed, childless pioneers gave spiritual birth to thousands of young women who benefited from their sacrifice and devotion. They populated the public secondary schools, colleges and universities newly opened to women with a cadre of ardent feminists determined to recover their ancient birth-right as emancipated women, mothers, and finally voters and even political leaders as society was slowly forced to admit them as citizens equal persons.

After paying tribute to the trailblazers, Russell pledged not to allow her upper and middle-class sisters to again be shut-in or stunted by the reactionary forces led by establishment politicians, the Bishops and “the author of *Lysistrata*” (p. 19). She hailed education as the key to the continuation and progress of the movement.²⁰⁵ She rhetorically asked the “elderly gentlemen” who were casting stones at women: “What education did they give their daughters, and what was taught to their mothers before them?” (p. 19), and she critiqued the finishing schools for genteel girls of yore:

²⁰⁴ It was interesting to see these memes of fierceness in battle and the relative equality of Viking women expressed in the TV series *Vikings*. Had Dora been writing now, she could point to *Lagertha* rather than *Artemis* as an inspiration.

²⁰⁵ Dora and Bertrand founded the progressive *Beacon Hill School* in 1927, which Dora continued to run until WW II.

What were the current ideas about feminine destiny which encircled them in their impressionable years? Many would answer, still far too many, that their daughters were given the education of a gentlewoman and fitted to become the wives of gentlemen. This we know of old. The lady eats, drinks, digests, wears clothes, tinkles the piano, dances, sings, handles a golf-club, submits to sex, bears a child without the smallest notion of anatomy, turns from the whole thing disgusted, and probably bears no more. Whose fault? Not hers. They do not teach mothercraft or physiology in finishing schools for gentlemen's daughters. (p. 20)

Russell affirmed the wisdom of those parents of means (like her own) who chose to give their daughters “a good and liberal education in such schools as were available, good ordinary boarding and day-schools which have sprung-up during the last fifty years in response to the feminist propaganda” (p. 20). Lastly, she considered the “working woman” who struggled to gain something of value from the meagre elementary public education offered to her and her brothers, before being forced into the world of work at age fourteen. Russell appealed for reforms to the education of all girls: pleading for subsidized secondary schools for all female pupils of promise, and a reformed, progressive curriculum that would teach subjects and topics better-suited to their needs and wants.

Answering another of Ludovici's charges—that of the militancy of feminists and their rivalry with men for careers, opportunities and income—Russell admitted that some mistakes were made. She likened the modern gender-war to the class-war between conservatives and socialists, and defended how women were forced to hide their bodies and feminine charms in the face of repression and hostility from men, having to work twice as hard for even paltry recognition, and even then never achieving equal pay or prospects for advancement. Women were not to blame for the sexless or androgynous methods they were compelled to adopt in the struggle, and she pricked at the double-jeopardy of women who were condemned for fighting in the trenches for their rights, only to be criticized as unladylike for their ability to compete on men's terms. So while the old feminist drive for education and advocacy denied or ignored sex, it was only to avoid the sexist charges of jealous, lustful men. Russell specifically appealed for a new honesty and liberalism in women's education, foreshadowing the Progressive Education movement that arose during the Great Depression:

There never has been a period when education has trained women for the possibility of motherhood, and it is time that such training was begun. What knowledge is of more vital importance to women than anatomy and physiology? They were allowed it if they were to be doctors, and then only with caution... We have no right to blame young women for shirking marriage, sex, or motherhood, or for moulding their figures along boyish lines, when we carefully treat them as boys and withhold from them as long as we can all knowledge of the difference of their physique and possibly of their destiny. I have no wish to go back on the great achievements of feminism, or to drive women from the professions in which they have a just right to be employed. I want to break down the last barriers. (p. 23, 24)

Then she added her own fervent hope for the future and the essential tasks for the next generation of feminism, as she foresaw them:

But the call of Demeter the Fruitful is insistent. If we would add to the achievements of those who came before us, let us freely admit that we have but been playing mock modesty, and that to us the body is no mere box to hold the mind, but a temple of delight and ecstasy. To me the important task of modern feminism is to accept and proclaim sex; to bury forever the lie that has too long corrupted our society—the lie that the body is a hindrance to the mind, and sex a necessary evil to be endured for the perpetuation of our race. To understand sex—to bring to it dignity and beauty and knowledge born of science, in place of brute instinct and squalor—that is the bridge that will span the breach between Jason and Medea. (p. 24, 25)

Aspasia: *The Younger Feminists*²⁰⁶

Having paid tribute to the pioneers of modern feminism and suggested the essential tasks for her generation, Russell turned her attention to that younger generation (she was 29 at the time) who were inheriting the mantle of the women's liberation movement and carrying-it forward. She again denied Ludovici's slander of feminists as being the purveyors of "body-despising values" and pointed to the physical education of women in the new schools and colleges that was developing healthy female bodies to go along with healthy minds. She denounced the pathological Victorian prudery that taught women to be ashamed of showing their bodies, covering all exposed skin except faces and lower arms; and declared that thanks to their recovered physical fitness, they are also rediscovering a healthy appetite, for both food and for sex.²⁰⁷ She also distanced herself from the elaborate ornamentation and excess of Victorian female fashions; especially the wire and rubber of corsets, girdles, or other props, and the exsanguinous make-up that was popular to accentuate the whiteness of alabaster skin.

She also refuted Ludovici's oft-repeated claim of Lamarckian degeneration of women's bodies, especially the narrow hips and pelvises. She attributed these symptoms as being the result of poor nutrition and a lack of essential nutrients while growing-up in squalid conditions of poverty, overcrowding and general neglect; in other words a eutheic explanation that did not require holding badly outdated scientific theories to account for the evidence.

²⁰⁶ Aspasia was an Ionian immigrant to Athens who became a companion of Pericles. She was mentioned in the writings of some of the greatest Greek philosophers, though most details of her life have been lost to history.

²⁰⁷ Russell here offers a footnote on the biological basis for the reputed smallness of feminine appetites. She remarks on her observation of a male-female pair of ravens eating fresh meat, where the female was only allowed to take tiny morsels while the male was swallowing large chunks. She offers this hypothesis for the evolutionary root of the female's lack of peckishness: "Can it be that in the savage state, only those females survived who could exist on the little the male allowed them? Is this a case of sex-linked heredity?" (p. 27)

She also denied “the author of *Lysistrata*” in his claim that women have become “sexless beings” without conjugal passions or desires. She asserted that fewer modern women retain their virginity until death than their Victorian counterparts, and posits that those who did so, were forced into a life of celibacy out of the fierceness of competition with men for a living wage and in order to maintain their economic independence and autonomous livelihoods. Thus their artificial prudery was a flight-response to the lustful male’s attempt to trap them in the twin bonds of matrimony and maternity. She offered a vignette of this struggling faux-spinster who merely wanted her cake and the opportunity to eat it in her few moments of leisure, with or without a lover to share it:

In all probability it is sex, not sexlessness, which makes women cling so tenaciously to the right to earn their living. Marriage brings a jealous, intolerant husband, children, prying and impertinent neighbors—degraded and humiliating slavery for the vast majority of women. Thirty shillings a week and typing or working in a shop... and, in the background a lover with whom somehow evenings are spent—a lover who has no claim and cannot tyrannize. A lover, perhaps, who pleads to become a husband, but has no chance unless his income is good or secure. Marriage would change him: *Aspasia* knows it. Marriage would also rob her of that thirty shillings a week, which alone stands between her and the abyss of primeval submission. (p. 29, 30)

She next painted the analogous portrait of the educated, upper-class, single-woman (like herself until recently) or the professional woman who eschewed marriage for a fulfilling career and individual autonomy. But whereas *Ludovici* never even mentioned the possibility of pre-marital or extra-marital affairs for any but the poorest women—only the legalized concubines he suggested as a remedy to the ‘female surplus’—*Russell* had no qualms in voicing these illicit trysts. She blamed any ensuing scandal on the “Bishops, school-managers, and male authorities” (p. 30) who would force women to choose between career and love-life, using sex as a weapon to make women conform to Victorian morality. This, she asserted “is not feminism—feminists have fought it persistently—it is medieval Christianity. It presents a choice between physical pleasure and service to the mind or soul; it upholds the... theory that renunciation of the world, the flesh, and the devil is the path to duty and salvation” (p. 31).

Russell credited the omnipresent threat of death and destruction during the Great War for forcing a new honesty in the relations between unmarried women and men, highlighting the absurdity of the old morality, “mocking the emptiness of female virtue” and declares this free and full love between unmarried equals as “the most priceless gift the immortal gods can bestow” (p. 32). She declared that even if modern feminists had to swallow their pride out of economic necessity and marry for self-preservation, the pagan *Pandora’s* Box of sexual delights had been opened, and woman had tasted the forbidden fruit of passion, but she refused to confess to any innate sinfulness. She

pushed-on to denounce the suggestion of polygamy (as one of Ludovici's proposed solutions to the problem of excess females) as being "no solution at all when we are polyandrous" (p. 33).²⁰⁸

She also hailed the new valuation of physical culture and bodily health, at last becoming divorced from the Puritanical moral dualism and outmoded vice-laws based on medieval Christianity, as offering a new harmony to mind and body, so that "Civilization without decay is at last a possibility" (p. 37). She envisioned a new role for this second generation of feminists, as sexual missionaries, as well as for any "men who can understand the problem":

It is for modern women and for men who can understand the problem to make an end to secrecy, shame and starvation where sex is concerned... How old and proper people love a vigorous and god-like young male! How they look askance upon, brow-beat, and bully his equivalent in the opposite sex! Here is a community for ever starving and choking its finest women, stifling their voices in education and public life; then turning and rending the submissive residue for being what years of intimidation have made them. Let them marry, you say, and make a success of that and their children. That would be well enough but for the taboos and disabilities with which marriage is surrounded. Feminism led women away from the home that they might return armed and unsubdued to make marriage tolerable. (p. 37)

She further dwelled on the fear and horror instilled in young, able women by their approaching nuptials, knowing they faced a loss of career, limits to public activity and a stack of added domestic duties forced upon her. All this surrender of personal freedom was signed-away, merely for the opportunity to enter into a binding contract "only to be broken in disgrace and public disgust" and, worst of all, "the looks and smiles from silly women broken in to slavery, congratulating us on having done well and made ourselves secure for life" (p. 38). She compared the corruption of a free woman assenting to the traditional marriage contract as being is akin to "a Labour Minister being corrupted by court dress" (p. 39).²⁰⁹ So, having outlined the new feminist woman and her attitudes to marriage and motherhood, Russell next turned to the married feminist mother as the 'mother of to-morrow.'

²⁰⁸ Dora Russell was to experience the male backlash to her own polyandrous boldness when husband Bertrand left her in 1931, after she had two children with journalist Griffin Barry; thus illustrating the limits of feminism in her failing to gain acceptance for her more radical feminist convictions by even the most liberal, male-feminist of his time. Ironically, Bertrand then married their children's governess, whom Dora had hired, and with which he was already having an affair before they separated and divorced. 22-year old Patricia Spence then became the next Countess Russell.

²⁰⁹ An allusion to Ramsay MacDonald (Dora campaigned with him, running as a Labour candidate for MP) turning-up in 1924 to form a government in full court dress, and then facing public scorn for bowing to aristocratic traditions.

Hecuba: *Feminist Mothers*²¹⁰

Russell began the longest chapter of *Hypatia* by explaining why she had bypassed any extensive discussion of “women and maternity, because it is still necessary to make it clear that a full life of activity for women is perfectly possible and permissible without it” (p. 40). She recorded her awareness of the religious tenet that promoted the ultimate procreative purpose of sex over any interpersonal pleasure, charged the “militarists” for perverting maternity for the purpose of providing plentiful recruits for cannon-fodder in war, and shamed those doctors who denied contraceptive services to women on moral grounds, while readily providing their medical services to support war.²¹¹ She discarded these “morals of convention or superstition” as the basis for a system of beliefs, preferring to place her trust in the “morals of experience” (p. 41). Her experience was that sex for modern women was as instinctive as for men, and contraception did not “diminish poise, health or happiness” and offered benefits even for willing mothers as a means for recovery and rest in-between pregnancies. She railed against a recent article by Catholic philosopher G. K. Chesterton (1874-1936) reaffirming the old Catholic prohibition against sex where procreation was not the primary objective, and objected to his militaristic metaphors about sex and maternity, accusing him of chauvinism and his fellow men of shirking their domestic duties in supporting their wives as fathers and partners.

Under these conditions, it was no surprise, nor even regrettable that there was a revolt against motherhood by feminists. She again indicted the formal education system for its dereliction of duty in not properly educating girls for marriage and maternity, suppressing awareness about contraception, and then expecting young women to become wise, prolific mothers. She repeated her earlier advocacy for the progressive education of young women, particularly the integration of sex-education into life-science courses, along with a physical hygiene curriculum that was honest and free from faux-religious solemnity and sentimentality. Russell sketched a school curriculum that was part traditional science, part civic-biology, and part education for human-rights and social activism. She argued progressive education to properly encourage the ‘mother of to-morrow’ was needed avoid the misinformation and whispered folk-tales that circulated among adolescent cliques in the absence of formal training:

²¹⁰ Hecuba was the wife of King Priam of Troy during the Trojan War and the Queen of prolific mothers, with 19 children, including Homeric heroes Hector and Paris, and the prophetess Cassandra; two of which were to be title characters for future installments of the *To-day and To-morrow* series, authored by B.H. Liddell-Hart (*Paris, or the Future of War*, 1925) and F.C.S. Schiller (*Cassandra, or the Future of the British Empire*, 1926).

²¹¹ Russell provided a footnote to this excerpt paragraph, insinuating that separating sex and motherhood through the voluntary use of contraception is inherently eugenic and possibly an evolutionary dead-end for feminist spinsters. If only those women who are fully committed to raising the best quality children become mothers, these traits will be preferentially selected for: “The children of women passionately desirous of maternity will inherit strong parental and survival instincts, the occasional feminist “sport” [the old British term for mutations] not reproducing herself!” (p. 47).

We want better reasons for having children than not knowing how to prevent them... Nothing whatever is to be gained by driving the timorous and weak by lies of compulsion into pain which they will resent and responsibility they will evade. Everything is to be gained by training a woman in knowledge, courage, and physical strength, and leaving it then to her own instinct and her mind to tell her that to create new human beings is worth the discomfort and the suffering which she must necessarily undergo. Those in whom the courage to create survives when choice is free and all the facts are known are those best fitted to bring children into the world, and breed them in eagerness and intrepidity. The other will only pass on fear and distaste for life from which individuals and the community suffer far too much already. (p. 46, 47)

Next, Russell refuted the charges made in *Lysistrata* that modern women's reliance on doctors, hospitals and obstetric instruments and drugs are the feminists' responsibility, but she vetoed any political crusade to return to natural childbirth. She denied the utopic visions of barbarians and savages enjoying lives free from pain, disease and deformity, as popularized by Rousseau and parroted by Ludovici, and lamented the great historical attrition of mothers in the act of natural childbirth, as compared to the greatly lowered infant-mortality made possible by modern obstetrics and medicine. She argued the presence of deformed, crippled, or otherwise marked people in society today was actually a sign of modern progress, rather than racial degeneration: their very survival being a triumph over the early death they would have suffered in the romanticized past. Thus, the great eutenic improvements of Victorian times, as decried by Ludovici, as well as by F. C. S. Schiller and other hereditarian authors in the series, was not a sign of any approaching apocalypse, but a testament to progress and public health. She provided examples of great scientific progress in the selective breeding and farming of plants and animals, pointing-out that these innovations as lionized by the reactionary traditionalists were not considered "natural" to the people of great antiquity. Further, she foresaw the same progress for humanity through education, medical research and a Welfare State with universal healthcare for the masses:

As regards the human body, to me at least it seems that we are now approaching the right attitude. There was more dosing and doctoring of petty ailments in the last century. To-day we try to learn how best to live in order that such ailments may not occur, and substitute a well-balanced diet for aids to digestion and the normal functioning of our bodies. We do the same in rearing our children. And this attitude would become more general if those who rule us, Press, Church, rich men and politicians, would consider it really important that every man, woman, and child in the State should have health and happiness, and... broadcast the necessary rules of life and supply sufficient healthy and staple foods for all, in place of advertisement of quack remedies and patent substitutes prepared by profiteers. (p. 50, 51)

Further reacting to the sentimental traditionalism of Ludovici, Russell considered the superstitions inherited from savage pre-history, early civilizations and the Judaic-Christian traditions of the pre-scientific era. She decried the prohibitions on preventing suffering during childbirth present in ancient Japanese moral codes, along with their Western analogues. She correlated these attitudes with the traditional religious view of sex and women's bodies as being unclean, tracing these attitudes from Leviticus through to the modern "service for the *Churching of Women* in the Prayer Book" (p. 51), thus belying Ludovici's claims for the origin of "body-despising values" in the New Testament. She temporally extended this male disdain for women and mothers to the refusal of many modern doctors to provide anesthetics for childbirth or dental surgery for pregnant women, their denial to provide advice on contraception and a proper education for women in basic anatomy and physiology.

Russell also attacked the old myth of maternal instinct and condemned the male dominated society for expecting women to pass-on all the required knowledge of woman-craft and motherhood to their daughters through natural osmosis, with no assistance from the State. She argued this myth was entirely false, while praising the women of old for doing as well as they could in a state of perpetual ignorance. She further pointed-out the misconceptions associated with breast-feeding promoted in *Lysistrata*, and highlighted the stresses modern women faced in industrialized economies that made natural breast-feeding impracticable if not impossible. The solutions she posited to these ills were the same: education, availability of contraceptives to space births, help with nutrition and child-care, and above all support and understanding from the medical community and the State.

This plea was also extended to the overall public promotion of women's health, especially diet, exercise, and preventative health measures such as therapeutic massage and physical therapy. She provided an expose of diet and health concerns in pregnant mothers that clearly exceeded Ludovici's rigid but vague declarations, showing her greater understanding of women's health issues and best-practices. In all these matters of maternal health problems, Russell argued that feminism brought a frankness and intelligence that made possible real solutions, and insisted there would be no going back to the dark ages of the "unguided instincts of our forefathers" (p. 57). This new applied-science of maternity, replacing the myth and folk-lore of old, would be advanced primarily by feminists, and she insisted this progress began with birth-control, as "the keystone" to the work of the "creative mother" (p. 57).

Russell asserted that once proper education programs for young women were established, the middle- or upper-class graduates would find “an existence that is not too intolerable,” thanks to the victories that feminism had won for them, but admitted that the movement had barely improved the lot of “wage-earning women of all classes” (p. 58). Especially concerning to her were the lack of sexual freedom, and the damage done to female bodies by late marriages, causing “girls’ young bodies to be worn with longing unless they are bold enough to follow our modern Aspasia. This waiting to marry is a real danger to young women’s health... It produces nervous disorders bordering at times on insanity” (p. 59).

For middle-class women, the prospects were decent; though she might not have a large family due to high costs, especially for secondary education or beyond and she criticized the ‘dog-in-the-manger’ attitude of the middle-class in voting against free secondary education “for fear the working-class might get some of it” (p. 59). But Russell also brushed-aside the threats of the eugenicists and traditionalists who forecasted ‘race suicide’ of the best stocks, and she simultaneously cooled the expectations of the bourgeoisie, in their false-hope to escape all collateral damage in the class-war:

All ambitious mothers, from miners wives to the aristocracy, would like to breed the fine types who receive a thorough education and then enter one of the intellectual professions. Obviously this cannot be... Man for man, woman for woman, the workers should be the equals of the middle-class in strength and ability, given the same nourishment, comfort and training. In actual fact, the middle-class is perpetually being replenished in one generation, or two at the most, from below. (p. 60)

Thus, if middle-class people wanted large families, their children should be prepared to “work the railways or dig coal in the mines” if they were not intellectually gifted. Only an rise in productivity and real wealth could support a larger superstructure of professionals, artists, academics and engineers, but she predicted “a more equal system of society will diminish drudgery and make it possible for all to have a fine development of intelligence and understanding” (p. 61), whatever their eventual vocation. With this sober reassurance to the middle-class mother, Russell moved-on to the more problematic future of the feminist working-class mother, who thus far had not broken-through to prosperity or security, but whom she predicted might “bring a new and powerful contribution to our work” (p. 61).

She proclaimed the life of the working-mother is “becoming well-nigh impossible” (p. 62) and sketched a vignette of a typical working-class couple who faced imposing economic deterrents to raising a family in a typical industrial town or city slum. After colouring her portrait with pathos and

indicting the “Bishops and Generals,” she channeled the spirit of Hecuba in sacrificing her sons and daughters for Troy; ending in another fervent appeal for birth-control knowledge and availability:

If I had but the eloquence of Hecuba mourning her slaughtered sons! The crime of war is bad enough: this butchery of hope and promise and human lives is one so black that the heart and mind of every woman who has borne a child should revolt against it until it is tolerated no more. (p. 63)

In addition to contraception, Russell added a long litany of required euthenic improvements, particularly those gained by the middle-class in the industrial age: proper housing, good food, thorough education, etc., but she wanted these gains for women in a much shorter interval. But the working-mother faced even greater burdens than the middle-class ever did, and Russell indicted the self-serving politicians who ignored their struggles and pander to the wealthy and powerful. Again the answer was State mandated and universally provided birth-control for the masses. Here, for the first time in the book, an explicitly eugenic recommendation was included among the euthenic solutions:

She cannot now destroy industrialism... but she can claim her right to control it in the name of life and the destiny of her children. Control of the population is essential to solving the food-problem and improving national health. Women in small houses know it. They know moreover that contraceptives are better than infanticide and war. The survival of the fittest is a false-doctrine in child-bearing as in fighting... And if the weak and unhealthy are discouraged from breeding and healthy mothers given proper care, great improvements are possible. Poor food and over-crowding are the ladder down which we go to mental deficiency and ultimate feebleness of mind. (p. 64, 65)

This was as close to hardline eugenics as Russell came in *Hypatia*, but the kernels of her euthenic ideas for maternal health and her appeal for universal State-funded and supplied contraception were soon to be repeated and expanded upon by fellow series-partners and birth-control activist colleagues: Dr. C. P. Blacker (*Birth Control and the State*, 1926) and Dr. Norman Haire (*Hymen, or the Future of Marriage*, 1927— see separate reviews). However, both Blacker and Haire injected numerous eugenics memes into their solutions, including permanent, compulsory measures. Russell also quoted a lengthy excerpt from a recent article by Professor E. W. MacBride (1866-1940 — a stalwart of early British eugenics and a confirmed Lamarckian anachronism among modern biologists)²¹² in which he showed that poor environments, especially malnutrition, caused inheritable bodily and mental deficiency in laboratory goldfish, which he extended to humans through unstated clinical evidence (p. 65).

²¹² See the portrait of MacBride and his Lamarckian eugenics in P. J. Bowler’s (1984), “E.W. MacBride's Lamarckian eugenics and its implications for the social construction of scientific knowledge.” *Annals of Science*, 41(3), 245-260.

Russell also testified that a life-affirming society would modify its laws to ensure that pregnant mothers got the very best nutrition available, instead of “clubs for fat old gentlemen and the frequenters of palatial hotels” (p. 66). She acknowledged a shortage of high-quality natural foods in Britain, and the rational solution was population control and fair allocation to those who needed it most, rather than only to those who could afford it. She offered the hope that scientists would find ways to increase productivity, or even enhance the nutritional quality of existing foods, especially for the special needs of pregnant mothers; presaging the trend to fortified foods and special maternal supplements that were developed after WW II. Nearing the end, Russell summarized her chapter on feminist mothers by posing and then answering the loaded rhetorical question: “What then must feminist mothers demand?” (p. 67):

The right first of all to the recognition of their work—the most dangerous of all trades and the most neglected and despised. They should ask for endowment from the community... it is the mother who bears and tends the child, and although many women receive the whole of their husband’s wages, others must fight a humiliating battle against drink and tobacco for the wherewithal to build their children’s bodies. This struggle is exemplified on a large scale in the spending of State revenue, most of which goes on armaments and the forces of destruction, and an infinitesimal portion to aid and support life. If Jason cannot give up his murderous playthings, let him have neither sons to destroy nor daughters to drag through misery.
(p 67, 68)

From this generalized environmentalist reform manifesto, Russell went on to list the specific rights and provisions that should be accorded to mothers and mothers-in-becoming, touching all the bases already run and she described the effects this Fabian-socialist reorganization of society would have on living conditions for women and the health of the nation. However, as opposed to the typical male eugenicist’s prescription for what ails us, Russell explicitly denied the right of the community to ever “except on the strongest grounds, deny parenthood to man or woman” (p. 69). For those who desired prolific procreation, she advocated for legal provisions that would allow annulling of marriages that did not result in a child within two years, at the wish of either party to the contract, since “Partnership in marriage should in effect be regarded as a partnership for parenthood, and as such should not be entered upon lightly” (p. 70).

With her pronouncements on the various categories of women out of the way, Russell turned to the male partner of women in marriage and parenthood, and forecasted a new harmonious relationship for these traditional rivals as true partners in a neo-classical age of enlightenment.

Jason and Admetus: *Men*²¹³

To open the last chapter, Russell restated briefly “what is the matter with men” (p. 71). She admitted that they were “not such fierce tyrants as when we first fought them” and even granted that “they have some grounds to complain of the feminine arrogance” that... “not content with proving equality, wants to go on and prove women the superior sex.” But in the very next sentence she reverted to “science” to advance the claim that “since [women] have one extra chromosome” compared to the male, they must “be of higher importance” (p. 71). However, she ultimately recommended against abandoning men or seeking sexless methods for reproduction, such as parthenogenesis; as there was evidence that all the children so produced would be male “or at least this is what happens when the experiment is tried with sea-urchins” (p. 72).²¹⁴

Russell accused men of being “old-fashioned” when it came to education and envious of modern women for the “freedom of feminist traditions.” Men had yet to realize how women have changed, nor had they seriously attempted to adapt themselves to these changes, but this would come in time, since “the desire of desires in man is to be pleasing to women” (p. 72). She turned Ludovici’s accusation of Puritanism among feminists around, accusing the male traditionalist of being the font of this Puritanical asceticism. She argued further that the body-mind dualism or false-separation was also a male construct, contaminating their view of both men and women, and led to making arbitrary distinctions in regard to masculine and feminine activities, occupations, or behaviours. This dualism also presented problems to the modern feminist, who had to choose between the manly-man of old (Jason) and pay the price for choosing short-term sexual passion later in marriage; or the more emasculate “Chaucer’s clerk” (Admetus) who would be a good platonic companion and father, at the cost of lessened passion during courtship and in the conjugal marriage bed. Russell sketched the pros and cons of these two male archetypes, and profiled how the relationship would change over time, either deteriorating from its initial ecstatic high with Jason, or appreciating over time with the timid clerk (Admetus). Neither alternative was really acceptable to Russell, and she saw one of the objectives for modern women was to break-down this dualistic dichotomy, to produce well-rounded men who would be both passionate lovers and good father-providers for their family.

²¹³ Jason, leader of the Argonauts, was not held in esteem by feminists for his casting-off of Medea for a younger, prettier wife, while Admetus (one of Jason’s faithful men) was renowned for his sense of justice and hospitality. It would be interesting to know which Argonaut she later associated Bertrand with, after he recapitulated Jason’s ‘sin.’

²¹⁴ Parthenogenesis (from “virgin birth”) is an asexual process that occurs in some lower animals (like insects) where unfertilized embryos grow and develop into full- or half-clones of the ‘mother.’ Depending on the species and the mechanism involved, the offspring may be female, male or neuter. As for sea-urchins, male seems to ‘fit’ better.

As for how to accomplish this ‘Hera-clean’ transformation, Russell offered no magic potion, or even a concrete twelve-step method, but after dancing around for some time with oriental wisdom, she made this general suggestion:

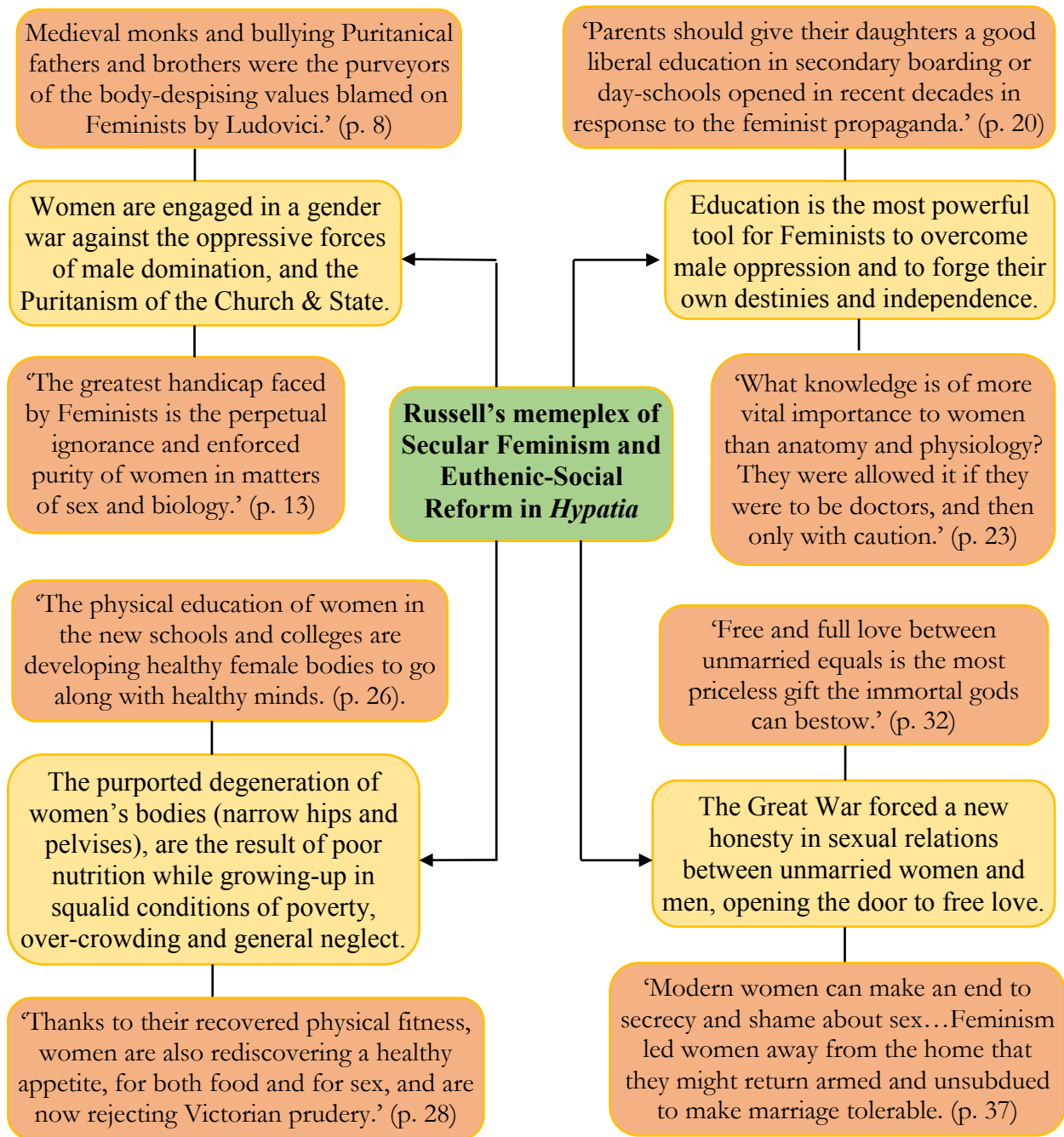
If we are to make peace between man and woman, and by their unity and partnership change the ideas that govern our politics and our outlook on the world, it is essential that men make a more determined attempt to understand what feminists are seeking. It is useless to go on abusing, or pretending that this is a matter of minor importance. It is also essential that women should think clearly and continue in courage and honesty of word and action, neither abandoning all for the pursuit of pleasure nor glorying in opportunities for an oppressive morality belonging to past ages... Life and harmony, generosity and peace are the ideals which the best thought of feminism has set before us. We believe that States and individuals can put them into practice. Will man not pause and understand before he continues on the path of destruction and strife. Can we not persuade Jason from barbarity and Admetus to the abandonment of his fears? To live with vigour, body and mind and imagination, without fear or shame or dread of death; to drive these baser passions from the hold they have upon our morality and our politics—this is what we ask of modern men and women. (p. 78, 80)

As to how to actually achieve this holistic formula for harmony, generosity and peace, Russell concluded *Hypatia* with more of her Carpe Diem recipe for mutual gender co-operation that mixed Progressive-era optimism, Lamarckian evolution and ascension, and a proto-New-Age prescription for physical-spiritual union and racial renewal:

They can come to it only in a reckless love of one another, a passion that gives rise again and again without fear of hurt or exhaustion. It is not an abandonment to nature and instinct that we need. Pure and barbaric instinct is no more. Our bodies are too much impregnated by inherited habit and knowledge, too much surrounded in their growth by the findings of science... There is nothing in life to compare with this uniting of minds and bodies in men and women who have laid aside hostility and fear and seek in love the fullest understanding of themselves and the universe. You cannot come to it by religion or by unaided reason, or by the brute courage of sheer physical vitality. Jealousy is death. Dualism is nonsense... You must have in you the thought that is creation; life’s spring, and the daring of its unconquered waters—so may you transform the world and people it with gods who know no more the hates and littleness of men. (p. 80, 81)

Before considering some of the contemporary critiques of her volume, as was done for *Lysistrata*, the partial meme-map in Figure A3-21 on the following page summarizes some of the prominent environmentalist worldview and euthenic memes and clusters expressed by Dora Russell in *Hypatia*.

Partial Meme-map of Dora Russell's Feminist Euthenics in *Hypatia*



Color Code: Meme clusters Memes or small clusters (Yellow borders signify a euthenics paradigm, environmental worldview)

Figure A3-21: A partial meme-map showing prominent memes and meme-clusters in *Hypatia* (1925). Russell sometimes bordered on neo-Lamarckian territory, but it was more of the naïve variety than the explicit advocacy of W. R. Brain in *Galatea*, or the harshly politicized Marxist-Michurinism of Lysenko (see review of *Galatea* elsewhere in this appendix for more on these neo-Lamarckian strains).

Contemporary Critics and Post-modern Admirers:

Considering that *Hypatia* and *Lysistrata* were published in the same year as a rhetorical duo, it is not surprising to find that they were often reviewed together. The first review to be considered here is from the American magazine *New Republic*, which portrayed the pairing as “A Sex-Duel.” In an extended review, Robert Lovett considered a contemporary theatrical production of *Lysistrata* to argue that rather than withholding sex from their men during the Great War, as the title character did in the Athenian conflict with Sparta, “never in the history of modern morality did women give themselves so generously” (p. 350). Lovett summarized Ludovici’s rants against feminism, racial degeneration; and questioned whether his suggested “Male Renaissance,” featuring the abolition of universal suffrage, was an appeal to Fascism as personified by “Mussolini,” who was then the only well-known purveyor of that ideology, yet to realize its full infamy under the aegis of Adolf Hitler.

As for Russell and *Hypatia*, Lovett was considerably more sympathetic, but also more terse. He remarked on Russell’s refutation of all Ludovici’s charges against feminists and modern women, as being “worthy of the great Alexandrian philosopher herself” (p. 350). After tracing what was different in Russell’s contribution, Lovett also highlighted what they share in common, firstly that “Both authors agree in their view of sex as the most important factor in making life worth living, and unite in demanding its freedom from the present system of legal restraints and moral taboos” (p. 351). He noted Dora Russell’s disdain for polygamy without the equivalent possibility for polyandry, but doubted Ludovici’s supporters would ever grant this equality.

Lovett closed the review with one of Russell’s “practical” suggestions and a clever twist of Ludovici’s chauvinism to end the unending sex-duel:

Finally she suggests a practical measure, worthy of Lysistrata herself, by which the young Aspasia of the feminist movement can join with Mr. Ludovici in bringing about the rejuvenation of society. This is “a trade union of lovers to conquer the world, and cry aloud that feminism is nowhere so much needed as in the home.” This is precisely where Mr. Ludovici wants to find it. (p. 351)

The second review exemplar comes from the Roman Catholic magazine *America*, in which the stern anonymous reviewer condemned both featured volumes as lacking any redeeming qualities to recommend them, in a rather dismissive review that is brief enough to present in its entirety – see Figure A3-22 on the following page:

Man and Woman Stand Condemned.—Two more additions have been made to the Dutton “Today and Tomorrow” series. The books of this series are small, but they profess to be “thought-compelling” and to give the ordinary reader an idea of what our “leading” men and women are thinking about. In “Lysistrata” (Dutton, \$1.00), Anthony Ludovici takes the position that we neglect the body for the sake of the mind, that science and commercial enterprises, by bolstering up our weakened bodies, have encouraged us to remain contentedly sub-normal. Hence, men have become inferior physically and intellectually, and “Feminists” help this downward tendency in man. Mr. Ludovici’s picture is so desolate that he seems to despair of poor man’s future.

In “Hypatia, or Women and Knowledge” (Dutton, \$1.00), Mrs. Bertrand Russell takes sharp issue with the author of “Lysistrata.” She tells him that if women are so little to his taste, it is men who have made them so. Women are awakening now. They claim their rights and will have them. She would take six men instead of one husband if *she* had *her* way, and she would otherwise conduct *herself* as any self-respecting pagan would. The two books stand self-condemnatory; no word of praise can be given to either of them.

Figure A3-22: The decidedly puritanical review of *Lysistrata* and *Hypatia* in the August 1925 issue of *America*, a Catholic magazine. Both original authors might have derided this worldview as representing outdated body-despising values and/or religious orthodoxy. (p. 45. 46)

In addition to these two American reviews, *The Eugenics Review* also critiqued both volumes separately. F. C. S. Schiller’s review of *Lysistrata* was considered in my review of that volume, and *Hypatia* was to get its own in the next issue. A very prolific reviewer for this journal, “C.B.S.H.,”²¹⁵ considered *Hypatia* in a combined review of six books barely united in their subject-matter by the inter-related themes of birth-control, eugenics, parenthood, morality and *Hypatia*’s feminist-response to all these.²¹⁶ This section was curiously missing from the online version of *The Eugenics Review* and necessitated procuring the print version from the University of Alberta’s Book and Record Depository (BARD). Not surprisingly, for those who are aware of the University’s close involvement

²¹⁵ I first thought “C.B.S.H.” might be an abbreviation-de-plume for J. B. S. Haldane’s second wife Charlotte; but later discovered that it was actually Cora B. S. Hodson, a renowned British first-wave feminist who was also a devout eugenicist. She would soon embark on a major tour of America giving lectures to American women’s groups, birth-control societies and eugenic organizations.

²¹⁶ The American journal *Eugenics: A Journal of Race Betterment* (published by the AES from 1928-1931) carried a feature article “Feminism and Eugenics” by Cora B.S. Hodson in their 1929 ‘Woman’s Number’ (vol. II, no. 12, pp. 3-5). The AES publicized her extended tour of America advocating for birth-control, temperance and eugenics to many interested puritanical audiences. C. B. S. H. (along with F. C. S. Schiller) was one of the few listed British members of the AES and a foreign subscriber to the *EJoRB*. See the section on eugenics education feature articles in Appendix IV, for the list of international members of the AES.

with eugenics in Alberta, BARD has a complete collection, going back almost to the journal's inception in 1909 (Volume 1 is not available) and continuing until after it was 'rebranded' as the *Journal of Biosocial Science* in 1969.

Hodson's review (p. 201) is difficult to follow, as she jumped back and forth between the six books reviewed, but she praised *Hypatia* and *Our Changing Morality* (Freda Kirchoway, 1925, also published by Kegan Paul, but not as part of the *To-day and To-morrow* series) as providing a "sheer contrast" to the works and views expressed by the other authors, who all happened to be male. Hodson argued the popular reaction to dismiss the "New Morality" as actually "standing for an entire subversion of all morality" is "superficial" and is creating "an unnecessarily unhappy breach between the passing and rising generations," as personified by Ludovici and Russell, respectively (p. 201). Hodson was "frankly prepared to believe that the rising generation has made an immense stride forward in the direction of true morality" and she asserted that both marriage and love have "come on to a new plane" that is a far more "psychological thing" than for [her generation's] grandparents:

Marriage can no longer mean a mere arrangement, a sort of means of life, it has become, what the best Christian doctrine has always maintained it to be, primarily, a thing of the spirit expressing itself in natural functions. *Hence procreation no longer stands as the chief end and aim of married life.* (p. 201)

The italicized (in original) statement in the last sentence of this excerpt has been bandied about both before and since, but it differed markedly from Russell's assertion in *Hypatia*: "Partnership in marriage should in effect be regarded as a partnership for parenthood, and as such should not be entered upon lightly" (p. 70). Russell would argue that marriage is not required in partners that merely want mutual pleasure and companionship, and she would certainly argue that many pagan marriage contracts were more just and equal than any creation based on Christian doctrine.

Hodson's subsequent assertion that "to a modern woman the writings of the older generation are so out of harmony as to seem base and degraded to their point of view of married life" (p. 201) also differed from Dora Russell's praise for the older feminists in her "Artemis" chapter. Before moving on to the other titles reviewed, C.B.S.H. offered this final regret and diagnosis for *Hypatia*: "It is a pity that Mrs. Russell's brilliant little essay shows so much bitterness. It is only a symptom of a passing phase, namely acute feminism, and it leads the writer into several inaccuracies" (p. 201, 202). Not having reviewed *Lysistrata*, Hodson may be forgiven for this judgmental tone. Perhaps future iterations of "acute feminism" may have brightened her assessment of *Hypatia* and Dora Russell.

On this note of future feminism, it is time to travel forward to 2009, and a review done for the republishing of the *To-day and To-morrow* series by Routledge (Shraner, 2009). The reviewer, Elise Shraner, concentrated on *Daedalus*, *Icarus*, and *Gallio* (Sullivan, 1927), but in discussing the small number of influential original volumes not republished by Routledge, she particularly lamented the exclusion of the two Russells' contributions, and questioned the judgment of the series editors:

However, even with the above-mentioned re-modelling of the series by Routledge, the most blatant affront of the entire republication is the anthology's exclusion of some of the more indispensable publications of the To-day and To-morrow series: *Icarus*, and Russell's second booklet of the series *What I Believe* (1925); Dora Russell's *Hypatia; or Woman and Knowledge* (1925)... Why Routledge decided to discard the texts by the Russells is beyond comprehension for there would arguably have been no To-day and To-morrow series without the *Daedalus/Icarus* debate; and, furthermore, to publish Ludovici's fascist rant in *Lysistrata* on the gender war without including Dora Russell's response to it is a massive injustice to feminist studies and leaves the series in want of a rebuttal. (p. 113)

Finally, on the subject of omissions, additions and drop-outs from the *To-day and To-morrow* series; a promised volume, *The Future of the Sexes*, by "Miss Rebecca West" (a close friend of the Russells and a fellow Fabian) was advertised for some time by Kegan Paul as "forthcoming" or "in preparation" but was never actually published. Instead, we got the later volumes: *Hymen, or Future of Marriage* (1927) by Dr. Norman Haire (who wrote the forward for Ludovici's *Lysistrata* and campaigned for birth-control-law reform with Dora Russell); and *Halcyon, or the Future of Monogamy* (1929) by Vera Brittain.

But despite having progressive-era science at their disposal, and "some of the most distinguished English thinkers of our time" (see the series promotional advert in the introduction to Chapter III) the *To-day and To-morrow* series never did conclusively resolve *any* of these debates; and the belief that they might eventually be resolved through the intervention of the natural or social sciences has largely vanished, except in the minds of fools and new generations of ardent social reformers.

C. P. Blacker's Reform Eugenics in *Birth Control and the State* in the *To-day and To-morrow* Series

Perhaps the most covertly eugenic volume in the *To-day and To-morrow* series, C. P. Blacker's (1895-1975) *Birth Control and the State: a Plea and a Forecast* was very avant-garde when it appeared in 1926, as only a decade or so previously this sort of public promotion of contraception would have been illegal. Dr. Blacker, a Member of the Royal College of Surgeons and Licentiate of the Royal College of Physicians, was a decorated veteran of WW I (in the elite Coldstream Guards), a distinguished student (in biology) of Julian Huxley at Oxford, a psychiatric colleague of Nobel laureates R. A. Fischer and Lionel Penrose (all were ardent eugenicists at this time); and he was later elected secretary of the British *Eugenics Education Society* from 1931-1952. Blacker wrote numerous articles and books to popularize eugenics and especially to advocate for State provision of contraceptives to the poor and working-classes. See the mini-reviews used in the series advertising in Figure A3-23, below.

This book was an expansion of a series of articles written for the London-based *Saturday Review*, and was dedicated to birth-control pioneer, suffragette, Fabian Society activist, and paleobotanist Dr. Marie Stopes, who opened the first legal birth-control clinic in London in 1921. In the short preface, Blacker lauded Stopes as a scientific pioneer in the movement, a tireless campaigner and political organizer, and credited her work for making his book possible to publish.

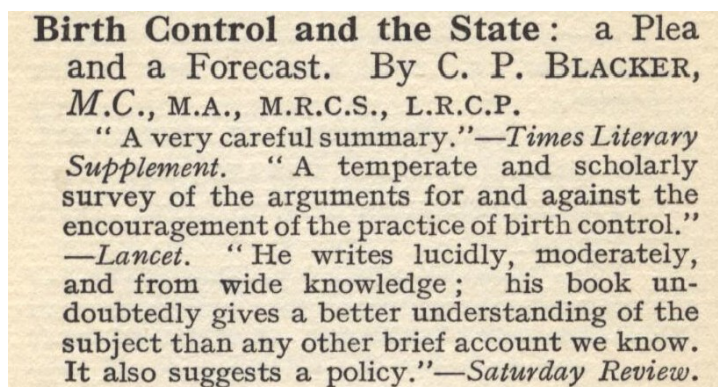


Figure A3-23: Selected clips of critical reviews of C. P. Blacker's pioneering book, as employed in the advertising of the *To-day and To-morrow* series. Notice the endorsement by the *Saturday Review*, whose newspaper first published the material in the book and a series of articles.

Contraception was still a controversial subject at this time, even within the Eugenics Society. Although all realized its eugenical potential to limit procreation of the 'less-desirable classes,' conservative elements of the Society (like long-time leader Major Leonard Darwin) had deep qualms, due to the common suspicion that it was only largely being practiced by the 'fitter-classes' who should

instead be the prodigious scions of future generations. The common meme to replenish the great losses of men during the late War (this was especially true in France, and almost ended the eugenics movement there) was also widely voiced. Many traditionalists thought contraception could actually produce dysgenic results, unless its use could be targeted and controlled. From other quarters as well, there was considerable ongoing resistance to Blacker's oft-repeated advocacy for greater provision of birth-control advice and methods in public clinics at State expense, at least throughout the 1930s.

Throughout the book, but especially at the beginning, Blacker took great pains to appear neutral and present multiple perspectives in the controversy over contraception, but by the end there was no doubt that he was advocating for its widespread use in solving the perceived eugenic ills of British society, as evidenced by this early passage to set the dimensions and parameters of the debate:

[Contraception] profoundly affects the life of the individual; it reacts upon the internal economy of the community; and it has a most important bearing upon the international future of the country wherein it is practiced. It is therefore incumbent upon all serious students of contemporary world-problems to realize clearly what is said on both sides, and to form thereon... an unbiased opinion. This obligation weighs especially heavily on medical men since... it is by them that it should be administered and controlled. (p. 10)

After this brief set-up, Blacker launched into a broad review of the "more serious arguments against contraception" considered first from the standpoint of "the Race" and then "the Individual" (p. 11). This is presented here as a paraphrased summary, supplemented with verbatim transcripts:

A. Racial arguments against Contraception:

1. The Military argument: prominent among nationalists, it opposes contraception as an impediment to deterrence and a serious impairment of the nation's military power.
2. The Global power argument: prominent among national business leaders and industrialists who see a prolific workforce as a requisite to economic might, and the best defense against military intervention in the long-run. If the population is allowed to decline past a certain point, economic output and the balance of global trade will be negatively impacted, leaving the nation ripe for economic takeover and conquest by "more prolific races." Blacker asserted this happened to France between the Napoleonic-era and WW I. "Birth control uncontrolled means race suicide" (p. 12).
3. The Economic argument: as above but limited to domestic economic concerns, which Blacker asserted was manifested in two forms, depending on the stage of industrial development:
 - i. In underpopulated countries ("like New Zealand, Australia," or Canada) that desire an extended increase in population, birth control would mean reliance on the "accretion of often undesirable aliens" rather than the "preferred native-born stock." Compare this with the racial views of George Godwin in *Columbia, or the Future of Canada* (1928 – see separate review in Chapter III).

ii. In developed nations like Britain, contraception was opposed by capitalists as a means for keeping wages low by ensuring keen competition in the labour market. The fear was that once contraception becomes a widespread practice among the working classes, it would cause severe labour shortages that would drive-up costs to the point where the nation would be internationally uncompetitive and result in terminal decline. Blacker asserted this was a particular problem in the United States, “where the labour problem is acute and where it is universally desired to limit coloured immigration and immigration from South-Eastern Europe” (p. 14).

4. The Imperial argument: applied to Britain as metropole of a global empire, prolific procreation was required beyond sustenance or growth of the national population, in order to provide a sustained flow of desired immigrants to the Dominions and colonies, “which in addition to satisfying a need for better-class immigrants would serve to consolidate the racial and cultural bonds that keep the Empire together” (p. 14). This was in close accordance with Eric Harris in *Achates, or the Future of Canada in the Empire* (1929).

B. Individual arguments against Contraception:

5. The Medical argument: common among traditional medical practitioners and traditional matrons, asserting that the practice was “inimical to health” leading to diseases (such as venereal diseases) and “more general constitutional disorders” (such as ‘sexual dissipation’), “emotional instability and various neurosis,” and a universal “natural revulsion” by women at such an artificial interference with a natural and spontaneous instinct.

6. The ‘Victorian’ or ‘Puritan’ moral objection: which holds that since all that pertains to sex beyond procreation was immoral and unfit for public discussion, this stigma extended to birth control as well.

7. The Religious argument: common among the orthodox Anglican Clergy, but most especially by Catholics and the Shinto religion of Japan, that the practice of contraception was immoral, even in married life, since it interfered with the divine commandment to multiply (and in the case of Japan, with the divine glory of providing soldiers to die for the Emperor in battle). Blacker repeated the common accusation by non-Catholics, that the real motive of the Church was “dictated by a desire to extend her spiritual empire throughout the world, since obedience to it must bring about a greater relative increase of believing Roman Catholics” (p. 18) and was thus also a special case of the Imperial argument. Also, the Catholic Church’s strict prohibition against sex among the clergy, and its general animosity to sex for anything but dutiful procreation among married couples, was similar to, and likely the origin for number 6, above.

8. The ‘Pseudo-Political’ argument: common with libertarians and some socialists that any significant inroads for voluntary contraception could lead to a “bureaucratic extension” of Birth Control, which “is held to constitute an infringement of the liberty of the individual” (p. 19). This was not extended to any discussion of compulsory sterilization or other more drastic measures.

9. The Promiscuity-run-amok argument: associated with the religious and Puritan moral objections, but especially applied to unmarried women, as the threat of pregnancy and scandal in the past was the ultimate limiter of illicit sexual behavior. Thus unregulated contraception would open the floodgates for lascivious activity by callous rakes and lead to widespread promiscuity in unmarried women and illicit affairs by married women. Special mention was made of the increased lure of prostitution for the “underpaid girl worker” and seduction of innocent but vulnerable schoolgirls.

Before turning to the arguments for contraception, Blacker commented upon the lack of authoritative, proper literature on the subject, and condemned the associated “immense vogue” that “certain popular works” had received by both married and unmarried persons, and noted that “such works had been held to inflame and pervert the imagination of the young, and on pseudo-medical grounds, to incite adults to promiscuity” (p. 21). He implied this would not be the case with proper information and the cooperation of the medical profession. On this note, it was interesting to note that of all the *To-day and To-morrow* volumes that I have inspected, this book (from the University of Alberta collection) enjoyed the greatest popular circulation, even if it was not a best-seller for the publisher. This was evident from the borrower records attached to the back inside-cover, dating from the early 1950s, and showing a marked resurgence in the early 1970s, and a regular demand extending into the late 1990s. Borrowing this book would have been a particularly plucky act for earlier female patrons through to the early 1960s, as patrons wrote their names and addresses on the library card. For those who had an obviously female first name, or included their gender, such as “Miss B.M. _ _ _ _ _”, this would doubtless prompt a certain self-consciousness and trepidation.

Next Blacker turned to the extended arguments for contraception, which he sub-divided into International, Social (further categorized into quantitative and qualitative considerations), and an Individual category. The Pros of contraception are summarized with supplemental quotations below:

A. International: Blacker accepted the assertion that over-population and war are directly connected, especially in nations that are both highly industrialized and “consciously nationalistic in spirit” (p. 22). He used the examples of China and India as clearly over-populated, but due to foreign domination (which suppressed nationalistic spirit) and a lack of industrial capacity there were other checks to war, such as famine or infectious disease that functioned to limit conflict to internal affairs. He used Germany and Japan as examples of the threat for grave international danger. Blacker pointed to nationalistic campaigns to promote prolific motherhood in Imperial Germany and Japan, for the express purpose of providing warriors for the aggressive aspirations of the Kaiser and Emperor, and noted the fear these efforts prompted in England and France, and now in Australia, New Zealand and the United States (he did not mention the fear of Japanese aggression in Canada, which was later expounded and its effects predicted by Godwin in *Columbia* (1929) and Harris in *Achates*, 1929).

Blacker predicted this fear and suspicion would lead to future tensions, and feared some international incident (such as an assassination of an American official in Japan), might lead to an “abrupt ultimatum out of which a second world war might, like the last, suddenly flare up, to reduce modern civilization to ruins and ashes” (p. 26). In this prediction, Blacker was a better prophet (at least for the near-term future of Germany and Japan) than many other *To-day and To-morrow* authors. He even predicted that the recently imposed immigration restrictions on Italians in America (starting in 1921) may lead to the Imperial expansion of Italy under the Fascist regime to the Mediterranean region. Thus, contraception served a vital role to avert future global conflagrations.

B. Social arguments for Birth Control:

1. *Quantitative considerations*: Blacker began by pointing-out the recent population increases of England and Wales have “been excessive” (p. 28). He attributes this to the increase in competition between industrialized nations since the end of the nineteenth Century. While Britain’s premiere position as an industrial powerhouse provided for unprecedented increases without irreversible harm, this changed with the rise of other industrial nations and empires that strived to undercut British goods and take away the incentive to further growth. He cites alarming population statistics and rising unemployment figures since the War, both of which threaten to eclipse Britain’s place in the world and lead to permanent decline.

2. *Qualitative considerations*: Blacker started by propounding the twin “dysgenic factors” of the rapid decrease in birth-rate (especially among the upper and middle-classes), combined with the even greater proportional decrease in the death rate due to modern sanitation, medical science and state-supplied charities that have checked natural selection and allowed a disproportionate increase in the number of poor and unfit individuals. He laments that because of “these factors it would nowadays be very difficult for any individual, however worthless, actually to starve, and many people of defective stock and bad physique who, in the ordinary course of nature would perish, are now artificially kept alive to perpetuate their kind” (p. 33). Thus, the blessings of industrial-scientific modernity have actually led to racial degeneration. Blacker devotes another six pages to explain the dysgenic effects of this economic inversion of the law of natural selection and survival of the fittest, from the sad narrative of the unemployable drunkard, to the poor working woman bearing dissipated children in rapid succession, inevitably requiring increased life-long State intervention and support; all to the rising detriment of the middle and upper-classes, who alone limit their numbers in a futile attempt to keep a reasonable standard of living, and growing ever more resentful of their ballooning tax burden.

C. Individual arguments: Blacker began with a humanitarian appeal for the dissemination of knowledge and access to “Birth Control to the poorer classes in the interests of the mother and the children” (p. 40). He deplored the large percentage of unwanted children of England that could be prevented with timely information and availability of contraception. He again uses the narrative of the alcoholic husband returning “home drunk on Saturday night and threatens [his wife] with physical

violence if she refuses to submit to his conjugal rights” (p. 40) to paint the picture of slum squalor and viciousness. He added supplemental statistical and anecdotal evidence from his internship at Guy’s Hospital in the heart of London’s east-end, and narrates a condensed-version of the miserable, overcrowded existence of a generic ‘poor mother’ with a ‘drunken lout husband’ and too-many hungry, dirty, listless children that grow-up to “witness their parents in sexual intercourse, sometimes their mother in labour, and where they are free to indulge in what, later in life, would be called incestuous practices with one another” (p. 46). Blacker engages in discussion of an even greater taboo subject, that of the illicit practice of abortion, either by the crude and dangerous methods of the typical reluctant mother herself, or the villainous back-street abortionist. But he only uses the spectre of abortion to emphasize the dire need for medically-staffed Birth Control clinics that would dispense free advice and contraceptives – not for providing abortions – but as a reliable preventative expedient.

Next, Blacker made a somewhat timid and coy foray into discussing the various contraception methods available, with a particular focus upon those that were practical for use in the teeming slums, rather than the bedrooms of the well-heeled. He dismissed outright the voluntary use of condoms by the type of man “whose procreation we would most wish to restrict” as being unrealistic, based on his own medical experience (p. 47). Blacker insisted the only hope of controlling the population of the lower-classes must come “through the woman who has to put up with the discomfort and pain of repeated pregnancies, and has to shoulder the burden of large families. Were it not for this elementary fact, all attempts to teach Birth Control to the very poor and destitute would fail completely” (p. 48).

The main problem with this approach was that the methods available at that time for women, primarily spermicidal suppositories and the ‘occlusive pessary’ (diaphragm), were less reliable and required proper instruction on their proper use to be taught by the provider. Blacker also discussed the practical problem of disseminating information about the proper use of contraceptives to poor married women, as only a few private clinics were available to instruct and provide the contraceptives. He concluded that the only long-term solution was to have the Ministry of Health take-on this mission and provide trained medical personnel at public hospitals and clinics in large towns and cities.

He also devoted another section to the problem of limiting this information and availability to the married. Blacker did not want unmarried persons to either have access to birth-control, or to have information about sex and contraception available to them, and he even had some hesitation as to the extended use (over a period of years) of contraception by young married couples who had not already had a family, if they are middle-class or above. He used appeals to racial progress, national pride and a future eugenic society to encourage any eugenically-blessed married couples to have a family at the earliest possibility and the largest number of children that they could modestly support, but he stopped short of promoting family allowance subsidies or eugenic stipends for the promising.

Blacker again turned to racial considerations of the quantitative aspects of contraception. He discussed the problem of adjusting the birth-rate to meet future needs, while reducing the social and political pressures of overpopulation, which he reduced to its root problem:

At the moment the indisputable facts of the problem in this country are that we are overpopulated, that contraception is practiced too much by the upper and middle-classes—perhaps even by the skilled working-classes—and not enough by the improvident unskilled masses at the bottom of the social edifice. (p. 62)

He held-out the promise that once the prodigious reproductive fecundity of the poor and improvident was curbed, the resources currently being diverted to charities and welfare support could be used to support the middle-class, through reduced taxation, and lower the social-costs of overpopulation (jails, hospitals, alms-houses, etc.). Thus, solving the quantitative demographic problems now extant would assist with improving the quality of the race in the future.

But, on this qualitative front, Blacker was less enthusiastic. He expressed doubts about the benefits of modernity and questioned the extent to which racial decadence versus economic considerations played the primary role in limiting the size of well-off families. Like A. M. Ludovici in *Lysistrata* (1925), Blacker condemned the society-woman's "selfishness" and vanity for "value[ing] amusements and expensive forms of pleasure and recreation more highly than the experience of maternity" (p. 63). He mocked the egotistical gentleman who preferred to spend money entertaining, or having a car and a big house with servants, rather than doing his racial and national duty to have a large family. He insisted that these attitudes in the wealthy must be combatted in the interests of racial prosperity and vitality. He even went so far as to suggest that the increase in parenthood among the well-off was more important than limiting the reproduction of the poor. Again, he cast a glance at France as an example of racial decadence and eugenic indifference, but insisted that the British spirit of national pride, Imperial duty and personal sacrifice would win-out, if it could be mobilized.

Turning to the dysgenic side of qualitative considerations, Blacker placed his hope in the introduction of eugenic legislation and measures in Britain, by following the recent pattern set by America. He argued that in America concerns for individual liberty were balanced by provisions for ensuring the quality of the race. He lauded such measures as Nebraska banning marriage by those afflicted with venereal diseases, Connecticut forbidding marriage among epileptics and the feeble-minded, compulsory sterilization of idiots in Montana, and the prospect of using X-rays for this purpose rather than surgery.

Blacker hoped to extend sterilization procedures to criminals, the insane, and others who “belong to a type which the nation does not want perpetuated” (p. 69). He presaged Paul Popenoe’s later book (1929) in extolling the advantages of eugenic “Sterilization for Human Betterment” (p. 69). Blacker even considered the eugenic effect of these measures in providing better immigrants for the Dominions, paying heed to the objections of Canada and other British colonies against using emigration from the metropole as a “dumping ground for our superfluous undesirables” (p. 70).

Shifting his gaze to the future, Blacker devoted another ten pages to international concerns for contraception and other eugenic solutions to promote peace and prosperity on the global stage. He first returned to the connection between over-population and wars of aggression, placing it first among the root causes of modern wars, rejecting the simplistic notion that Britain’s European enemies were any less-civilized or rational, or any more greedy, cruel, jealous or lustful for world-power. He turned his focus first to Russia, arguing that the deposing of the Czar was an accident of the fortunes of war. Next, he looked at Germany, arguing that it was traditional racial-antipathy between the declining French and a nascent Germany with no outlet for its expanding population, and a certain amount of jealousy from Britain that were the ultimate cause of German belligerence. But, Blacker devoted most of this section to his deep concerns about Japanese Imperialism and militarism and their rising antipathy with America as the greatest source of international danger for the future. He even predicted that it would be an alliance of Soviet Russia, Japan, and parts of Asia (India is mentioned specifically) that would be the enemy in a next world war; as the West faced-off against this new power-bloc in a war that could end civilization, spark new socialist rebellions in Europe, and would likely end Britain’s position as a world-power and global empire:

The fact remains that if the price that humanity will have to pay for learning to regulate its over-multiplication is to be a second world war, the much talked-of war, this time between East and West—it is doubtful if there will be left a civilization capable of learning the lesson. (p. 78)

Staying on the international stage, Blacker expanded his previous discussion of religions as a cause of overpopulation, war and global strife. The first culprit was the Catholic Church, condemned for its obstinate focus on the next-world to the detriment of social-justice and well-being in this one. He offered his “devout hope” that this behaviour would be changed, and held-out some small hope that should Catholicism ever threaten imminent war the Pope would “modify the Church’s attitude” before it was too late: “Failure to do so would result in the depressing spectacle of the leader of the religion of ‘Peace and Goodwill’ among men deliberately refusing to take a step to avert war” (p. 80).

Next, he again considered Japan and the “tribal religion” of Shintoism (p. 80), which he admitted had proven itself in several recent wars “to be a splendid fighting creed” and hoped that the Emperor might accept contraception before a civilization-ending cataclysm. In this, his worry was confirmed, but Japanese losses in World War II were enough to reduce Japan’s population to the point where acceptance of contraception was no longer required. Indeed, Blacker would live long enough to see a return to traditional Japanese isolationism and xenophobia, along with a national embracing of Western contraception methods, including abortion (as opposed to the traditional preference for infanticide) that has resulted in the population declining to the point where ‘race suicide’ is again being contemplated. Blacker concluded this section with a brief discussion of the Muslim world and his own Anglican faith. Ironically, from the hindsight of the early 21st Century, Blacker dismissed the danger from the “militancy of Mohammedanism,” citing their lack of organization for modern war. He also absolved the Church of England from any dysgenic behaviour, arguing it “is more concerned with the social and international implications of religion than any other” (p. 81).

Blacker then moved on to a general plea for a global reappraisal of national merit, from the current focus on military prowess and economic power, to an assessment of the biological-eugenic valuation of its population, in the same sort of neo-Darwinian potential for future progress as first advocated by Francis Galton (1904). Thus, like Galton and J. B. S. Haldane in *Daedalus* (1923), he looked forward to the replacement of traditional societal values of power and wealth, with a ‘secular religion’ of eugenics that would value intelligence, vigor and self-sacrifice for the sake of racial progress, unified ethics and global peace. Blacker used a proto-Kuhnian notion of revolutionary-science replacing the traditional, inappropriate paradigm and establishing a new equilibrium based on humanistic ethics and eugenic ideals, with a racial orientation rather than individualistic priorities. In this, he offered the social organization of a bee-hive as an exemplar. He went on to offer explicit eugenic standards to be strived for: including biological fitness, social harmony and contentment, lack of crime and insanity, a uniform level of reasonable financial comfort with the melding of disparate classes into one cohesive hive; and with a population carefully controlled to match national resources. Blacker used Switzerland as the example to be emulated, and offered the hope that:

When other countries can, by simultaneous control of population, realize a similar security, it will open them to follow in [Switzerland’s] footsteps. The ideal may not appeal to the romantic, but much that passes for romance is frequently pernicious nonsense, like the sentiment by which war is glorified in the eyes of many women and elderly men who have never participated in it. (p. 89)

Blacker then began his summary with a broad, unromantic appeal for action that echoed Bertrand Russell in *Icarus* (1924) in its appeal for international solidarity and community mindedness:

Such are the bearings of an enlightened Birth Control upon the future. It is obvious that such advantages could only be gained by slow and laborious degrees. The writer is far from the opinion that the application of his views will immediately transform the world into a Utopia. He is convinced however that if the existing form of civilization is to have any permanence, the necessity for controlling population will have to be realized and striven for by all educated people. (p. 91)

He recapitulated his 'plea,' explicit in the sub-title, that "the Ministry of Health should give the subject of contraception its sanction" (p. 92). He lauded a promising petition by members of the Labour Party in 1924 to allow doctors in the National Welfare Centres to give information on birth-control to working women, only to be dashed by resistance from "ecclesiastical' circles and reactionary political forces on the right. Blacker praised the redoubtable efforts by volunteers of the Malthusian League and Dr. Marie Stopes, but argued this was not enough to even curb the dysgenic problem in London, let alone make a dent in the national problem; and he repeated his earlier petition to regulate or prohibit public dissemination of birth-control information by the "baser organs of the press" (p. 94). He closed by arguing that the best method to overcome this conservative resistance to contraception and end the vulgar and sensationalistic propaganda of the popular press was for the medical profession to make a concerted effort to provoke the Ministry of Health into action through force of numbers and collective prestige:

How best can this sanction be obtained? Clearly through an appeal from the medical profession. An expression of unanimity... from doctors in this country... would constitute an argument which the Ministry of Health could not easily ignore. If the sanction were thus obtained it would be open to those medical men in this country to invite their colleagues in other countries to follow in our footsteps. It would seem best to begin with Germany and America, where there is reason to suppose that such an appeal would meet with response. If support were forthcoming from these countries, others might be approached—such as Japan, Italy and perhaps India, in which last the suffering caused by an excessive birth rate and a high early death rate is immense and almost wholly avoidable.

In this way the medical profession in whose hands the health of each community lies would take the first step in the direction of an international control of population, and would thereby lay the basis for a genuine and permanent world peace. (p. 94, 95)

Figure A3-23 below illustrates some of the key memes and meme clusters in the book:

Blacker's Medicalized Eugenics Memplex in *Birth Control and the State*

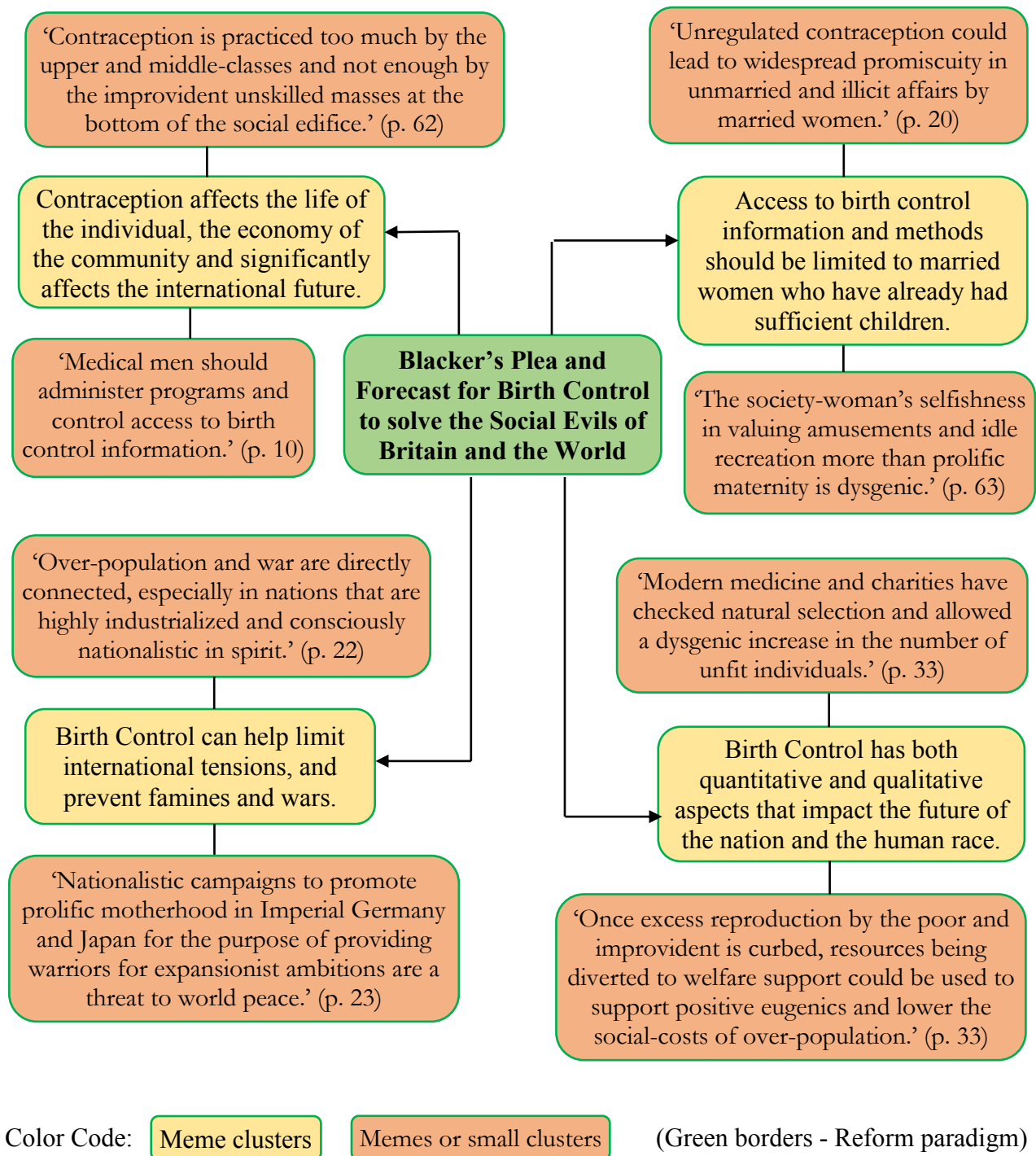


Figure A3-23: A partial meme-map for Dr. Blacker’s plea for widespread acceptance of State provision of contraception and a forecast for its use in Britain and around the world to correct rampant domestic social problems and relieve international tensions.

Contemporary Reviews of *Birth Control and the State*

Despite its apparent popularity, finding an online review of this title was difficult. I did multiple searches, and even manually searched through book reviews in the *Eugenics Review* for a two-year window after the book was published. Finally, I found an anonymous review from the *Journal of the American Medical Association* (JAMA), partially excerpted below in Figure A3-24. It is less of a critique than a glowing testimonial of Blacker's "little book:"

BIRTH CONTROL AND THE STATE. A Plea and a Forecast. By C. P. Blacker, M.C., M.A., M.R.C.S. Cloth. Price, \$1. Pp. 87. New York: E. P. Dutton & Company, 1926.

This is one of the volumes in the "Today and Tomorrow" series. Although these volumes are small and are published to retail at a dollar each, many of them are fascinating contributions to the literature of man and his future. This little volume maintains the high standard of the series. It is a sort of primer of birth control. But to write a good primer requires a master; and Blacker lives up to that requirement. Surely such a book should appeal to medical men of intelligence and imagination. Birth control is a biologic topic; it is a problem of medicine; and Blacker appeals to the medical profession to give the subject its attention and to take wise action regarding it. Medical men, as a rule, are not conversant with the terms of the problem; many of them are inclined to regard it as a sex problem, chiefly interesting to fanatics and of no particular importance. They owe it to themselves to disabuse their minds of this superficial notion. Birth control comes within the domain of the great problems of mankind, and medicine has a responsibility in the problem

Figure A3-24: Review of *Birth Control and the State* in the *Journal of the American Medical Association* (1926; v87, n12, p. 963). The anonymous reviewer was quite taken by Blacker's little book, and offered high praise for it as a primer for both the medical professionals and interested laymen.

Although Blacker was to live to see the medicalization and eventual global evangelization of birth control, he also witnessed the rise of negative-eugenics pogroms in America, even extending to the participation of medical-scientific personnel in international genocide by Nazi Germany. These developments were to make progressive-era controversies over contraception seem tame. But, even with the rise in the West of publically-funded State-provision of both contraception and abortion as a method of population control, actually exceeding the loss of life in the Great War; dire concerns about over-population, 'race-suicide' and the inability to prevent global war remain unresolved.

In totality, Blacker proved to be one of the more prescient prophets of the *To-day and To-morrow* series, even exceeding in the fulfillment of his plea for widespread contraception, those authors who explicitly tried to predict their future and our past. In that, his little volume deserves praise and scholarly study. Blacker's volume was republished by Routledge in 2009, in a combined volume with *Hymen* (1927) and *Halcyon* (1929), so his book at least gained a new lease on memetic life, at least for scholars.

The ‘Neo-Lamarckian Darwinism’ of W. R. Brain’s *Galatea* in the *To-day and To-morrow* Series

Neo-Darwinism, or evolution by natural selection with a total reliance on hereditarianism, was a staple feature, if not a common thread, in several early volumes of the *To-day and To-morrow* series, from the inaugural issue by J. B. S. Haldane (*Daedalus*, 1923), through to the pessimistic prophecy of rampant racial degeneration in F. C. S. Schiller’s *Tantalus* (1924) and the explicit racial anthropology of F. G. Crookshank’s *The Mongol in our Midst* (1924.) The first advent of a strong environmentalist (euthenic) thrust came with the release of American geneticist H. S. Jennings’ *Prometheus, or Biology and the Advancement of Man* (1925). In 1927, Oxford graduate, neurologist and the future Baron of Eynsham in Oxford County, Dr. Walter Russell Brain’s (1895 – 1966) *Galatea, or the Future of Darwinism* (1927) took Jennings’ agnosticism to the next level, even using the generally *verboten* term (among eugenicists) of *neo-Lamarckism* without apology or timidity.²¹⁷

Dr. Brain proclaimed “Darwin is the Newton of Biology” (p. 91), and he made careful note of Darwin’s Lamarckian tendencies. His more hereditarian cousin, Francis Galton (founder of eugenics), is not mentioned, and he never uses the word ‘eugenics’ (although the term “dysgenic” appears once); nor does ‘euthenics’ make an explicit appearance. But it could be said that Brain’s essay is preparing the memetic way for a future series treatment of neo-Lamarckian euthenics, in a secular recapitulation of a ‘Jean-Baptiste Lamarck of Biology’ paving the philosophical pathway for the coming “Einstein of Biology” (p. 91). See the promotional review and title-page for *Galatea* in Figure A3-25, below:

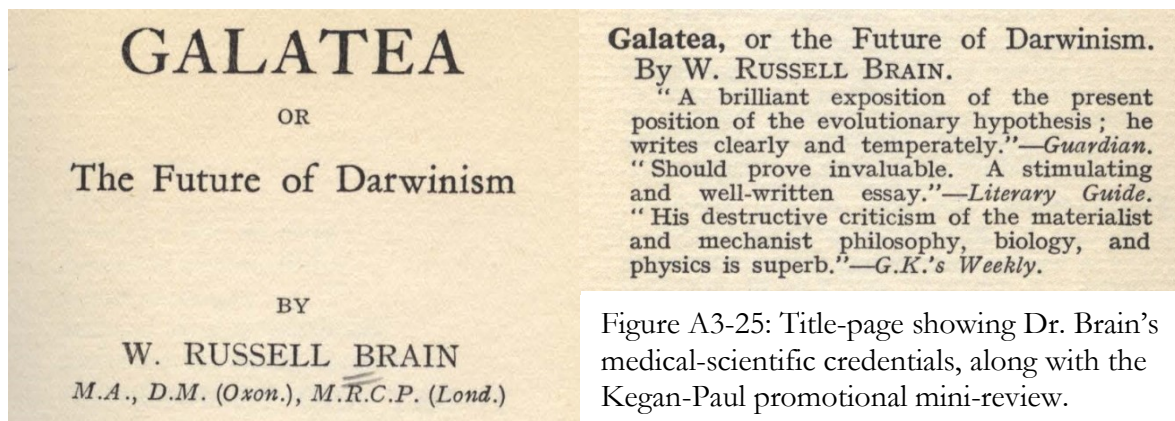


Figure A3-25: Title-page showing Dr. Brain’s medical-scientific credentials, along with the Kegan-Paul promotional mini-review.

²¹⁷ Galatea was a *Nereid* (sea-nymph) in Ovid’s (43 BC-18 AD) *Metamorphoses*. She immortalized her lover as the river-spirit Acis, upon his murder by the Cyclops Polyphemus, by turning her beloved’s blood into the river Acis. There is no mention of the title character or her legend’s historical-philosophical significance in *Galatea*. Brain was elected a Fellow of the *Royal College of Physicians* in 1931 and their president from 1950 to 1956. He was knighted in 1952, elevated to Baron Brain in 1962, and elected a Fellow of the Royal Society in 1964.

Dr. Brain began *Galatea* by confessing his Darwinian crisis of conscience: “It is hardly possible to accept the current Neo-Darwinian views on evolution without experiencing grave doubts concerning the rationality of the Universe” (p. 7). Over the next four pages, he laid-out the bare-bones essentials of Neo-Darwinian (hereditarian) dogma in a literary row, without using August Weismann’s²¹⁸ name, and then asked the rhetorical question “what conception of the forces at work in evolution does the theory imply?” (p. 12). His main objection to the theory, as presently constituted, is that Neo-Darwinism lacked “rationality” (p. 12). There was no guiding hand, no intelligent design, no room for creative initiative. To clarify his point, Brain engaged the reader in an extended analogy of Londoners setting-out on the British rail network, choosing trips at random from the train guide, and suffering arbitrary execution if their second destination is not on the same line as the first. This process would continue until the vast majority of travelers are extinct, with just a few survivors reaching the terminus of whatever line they were on, most ending-up on the coast. The random, capricious nature of this deadly game of chance was supposed to illustrate the “two cardinal features of evolution” according to Neo-Darwinian dogma: Mutations are fortuitous, and, though mutations are totally unrelated to environment, they only have survival value in relation to the environment in which they occur (p. 14).

In Chapter II, Dr. Brain further illustrated the inadequacy of the Neo-Darwinian account of human evolution with a detailed exemplar: the evolution of an upright posture from our quadruped ancestors. Using the fragmentary fossil record, the anatomy of our surviving primate cousins and the anthropological authority of Sir Arthur Keith (p. 26), Brain traced the myriad of adjustments and coordinated changes that would have to occur in order to produce modern *Homo sapiens*. He claimed the hereditarian camp’s attempt to deflect criticism over the paucity of robust explanations by simplification, abstraction and compartmentalization, was an effort to limit the huge number of coordinated mutations that would need to occur. Even worse, Brain contended that when the focus of the observer or evolutionist was switched from anatomy to physiology and function, the problems of Neo-Darwinism were greatly exacerbated. When expressed as changing physiology and biological function, the operation of chance to produce the coordinated changes in man was simply too much for Brain to accept.²¹⁹

²¹⁸ August Weismann (1834-1914) was the German evolutionary biologist who empirically discredited Lamarckian inheritance of acquired characteristics as a valid scientific theory. His critical experiment cut the tails off mice before breeding them, generation after generation. Even after hundreds of generations, tailless mice did not appear in the litters of the tailless parents, showing that somatic (body) cells do not influence the germ-line cells (sperm and ova).

²¹⁹ Richard Dawkins has made a literary career defending Neo-Darwinism and gradualism from all challengers, even debunking the obsolete biological philosophies expressed by Brain, Lysenko, R.C. Macfie in *Metanthropos* (1928), and other “Doomed Rivals” in the final chapter of *The Blind Watchmaker* (1986). Dawkins also founded the science of memetics (the study of memes), which has become the *de facto* secular religion of the Internet and social-media.

To drive this point home, Brain elucidated an eight-point list of preconditions for faith in the conventional Neo-Darwinian account to achieve these profound cumulative evolutionary changes:

- (1) That they are the result of chance alterations in the constitution of packets of chemicals in the germ cells (p. 24).
- (2) That these chemical changes were purposeless and were in no sense designed to produce the alterations of function...that were produced by them. (p. 25)
- (3) That they were entirely uninfluenced by the exercise of those functions in previous generations. (p. 26)
- (4) That by a series of steps this blind and purposeless chemical instability altered the arrangement of the nerve cells in the brains of certain apes, so that they ceased to progress on all fours and walked upright.
- (5) That no single step impaired the perfect coordination of impulses for innumerable sense organs... joints and muscles, whereby posture is regulated.
- (6) The general effect of these changes was to benefit the organisms in which they occurred. (p. 26)
- (7) Simultaneous, but harmonious changes were occurring in the bones, heart, blood vessels, lungs and other viscera, so that all the organs became suited to the new attitude. (p. 27)
- (8) That the adaptations and design of these changes is due to the fact that only steps in a certain direction benefitted the organisms and led to their selection and survival. All animals undergoing useless or disharmonious changes fell-out of the struggle and were lost.

To add to this improbable mountain of circumstantial fortuitousness, Brain cautioned the reader that these kinds of changes would have had to occur in all species that are alive today, stretching the very limits of credibility even for well-indoctrinated adherents. “What is the possibility this has taken place?” he asks (p. 28). For Brain, it is beyond sound reasoning to accept that all these coordinated changes could be expected through the operation of sheer chance, again using a British-railway metaphor to visualize the impossibility of this scheme, saying “it would be easier to believe that the timetables by which railway traffic is regulated are constructed by drawing figures out of a hat” (p. 29):

Neo-Darwinism, then, explains the whole world of life, including the highest achievements of human culture, as the effect of blind mutations selected by a blind environment. If that be true, the lottery, far from being condemned by austere moralists, should be endowed as a perfect symbol of the creative process. (p. 29)

He continued the charge of philosophical poverty in the conventional creed, by chiding biologists for their materialism, and for the co-opting of material progress in civilized humans as a defense for Neo-Darwinism, as evidence for the inadequacy of the theory “to explain the origin of everything that evolution has brought forth” (p. 30). He reminded readers that no biologist had elucidated how a

change in the chemical composition of a gene has given the world a new religion, great art or moral advancement. He rejected the simplified view that “requires us to believe that all behaviour can be explained in chemical terms” (p. 32) and labeled this belief materialistic:

If religion, morality and art can be so explained, their existence does nothing to redeem Neo-Darwinism from the charge of materialism; if they cannot, they imply the presence in nature of some factor of which Neo-Darwinism takes no account. (p. 32, 33)

Having discredited Neo-Darwinism as a robust theoretical foundation to explain evolution in all its glory, Dr. Brain set-out in Chapter III to offer something more substantial and agreeable. He reminded readers of the competition between theories to explain the facts, which was only intensified when the theory dealt with life in general, and humanity in particular. He discussed the theoretical milieu in which Neo-Darwinism was assaulted from all sides, and he offered an old alternative:

Those who object to Neo-Darwinism on the score that it does not explain the facts maintain that the “simultaneous and harmonious adaptational transformations” required of evolution could not possibly be produced by haphazard mutations in the time available. Those who believe, on religious grounds, that the world is the product of an intelligent Creator, find it hard to attribute intelligence to a Power that operates in such a fashion: while those who do not regard behaviour as explicable in chemical terms, cannot accept a theory which traces its origin to chemical changes. For such reasons as these an increasing number of thoughtful people are beginning to reject Neo-Darwinism in favour of a point of view that may be called Neo-Lamarckian. (p. 35, 36)

Brain provided a brief biography of Jean-Baptiste Lamarck (1744-1829), discussed his solution to the mystery of human evolution from ape-like ancestors and offered an extended quotation from Lamarck’s *Philosophie Zoolologique* (1809) on human evolution (p. 36, 37). Noting Darwin’s agreement with Lamarck, Brain used another extended quotation from *The Descent of Man* (1871) on the structural changes involved in the evolution of an upright posture in man to pronounce Darwin a Lamarckian. He clarified that the rejection of the theory of use and dis-use by biologists “was one of the doctrinal changes which necessitated the addition to Darwinism of the prefix ‘Neo-’ (p. 39).

He then presented the Lamarckian account of the same problem that the strict hereditarian account was incapable of explaining adequately and credibly. Brain pronounced this account much more plausible, harmonious, and justifying “a teleological view of functional adaptations” that supplies a view of evolution by those “effects of use and disuse with which we are familiar in everyday life” (p. 42). He then asked the obvious question: “Why then is it not generally accepted?” (p. 42).

Brain immediately offered the two main objections to Lamarck's innovation: the lack of experimental proof for inheritance of acquired characteristics, and the lack of any proposed mechanism "whereby the germinal material can be influenced by habit" (p. 43). This prompted a discussion of what is meant by acquired characteristics, and he attacked the common experimental approach for its "violent interference [to the organism] from without" (p. 43) and condemned these methods in a long screed against the "excessive self-confidence" of mechanistic, experimental science:

Experiments involving mutilation, exposure to unwanted heat or cold, darkness or light, and the like, have been made in the attempt to demonstrate the inheritance of some resulting modification. Their failure is held to imply that acquired characteristics are never inherited. Thus, sixty-nine generations of flies have been bred in the dark without producing any alteration to their eyes. It is difficult to decide which is the more to be admired, the optimism of the investigator, or that of the flies. It is hardly surprising that a germ-plasm which, as Samuel Butler might have put it, has been in the habit making eyes for millions of years and now does it without thinking, should refuse to be deflected so easily from its usual practice. All that was in fact proved was that no new characteristic was acquired. (p. 43, 44)

Behind this type of experiment there lurks a tacit assumption that the only way in which a character can be acquired is as a passive or induced effect of a change in the environment... Only an excessive self-confidence, bred of the enormous success of experimental methods, would have led men to believe that the problem of the inheritance of acquired characteristics could be solved once and for all by their failure to overcome the genetic autonomy of the laboratory animal. (p. 45, 46)

A Short Side-trip into Lysenkoism and neo-Lamarckian Soviet Euthenics

Having spent half the book attempting to put a still un-mentioned Weismann and his neo-Darwinian disciples in their place, Dr. Brain then cautiously began to build his case – much like a reticent Charles Darwin before *Origin of Species* (1859) – for a novel, unconsidered factor that might explain the Neo-Darwinists' lack of success in replicating inherited acquired characteristics. But before turning to the second-half of *Galatea*, I wish to highlight that more infamous and momentous incarnation of *Neo-Lamarckianism* that was just beginning to bud, far across the expanse of Continental Europe in the fertile but troubled fields of the Soviet Ukraine, now under the supreme direction of a newly ensconced Josef Stalin: that of *Lysenkoism* or *Marxist-Michurinism* (Kohlman, 2011).

It was surely just a coincidence that Trofim Lysenko (1898-1978), a Ukrainian peasant with very limited formal education and newly promoted to apprentice agricultural-selectionist, began work in 1927 (the same year that *Galatea* was published) on a new approach to agriculture that would negate Weismann's experiments, to cause the inheritance of acquired characters by forced environmental changes or 'shocks.' In Lysenko's case, his first experimental subject was winter-wheat, which by

treatment with wet and cold, he claimed to induce to turn into spring-wheat, a process labelled as ‘vernalization’ in western translations, and which he further claimed to be heritable. If valid, this sort of treatment offered the promise to radically increase wheat or other crop yields. Lysenko later extended his bold claims to other areas of Soviet agriculture and forestry. Crops could be made to grow further North, in poor soils, or with less irrigation on the dry steppes. New varieties of fruit and lumber trees could be developed in silvaculture versions of the collective farms (*Kolkhozes*) that were to begin to revolutionize Soviet farming and rural life, to progressively industrialize the countryside and put the backward Soviet provinces firmly on the road to Socialism.

Once Lysenko had his rather crude experiments translated into the proper Marxist-Leninist rhetoric and the pragmatic folk-science philosophy of Ivan Vladimirovich Michurin (1855 – 1935), his work gradually came to the attention of the Communist Party, and eventually to Stalin himself. Stalin later pronounced Marxist-Michurinism an official Soviet Science, lavishing Lysenko with authority and leadership over Soviet Science far beyond Lysenko’s limited ability to adapt to. The ultimate results were fatal for hundreds of leading Soviet geneticists, medical doctors, professors, and other scientists who were victims of Stalin’s ‘Great Purges’ and the violent reorganization of Soviet agriculture, biology, and medicine during the late 1930s; and again in a smaller aftershock after the end of World War II and the start of the long Cold War. Beyond the scientific community, there were millions of victims by starvation, execution and exile during Stalin’s reign, just in the Ukraine. Later, there was another less-draconian attempt under Nikita Khrushchev to revive Lysenkoism. Soviet science was set-back by several decades in several critical areas, and science education was perverted for partisan political purposes until the late 1960s.²²⁰

Lysenko never explicitly articulated a human extension to his schemes for forced environmental shocks leading to new, superior varieties of people. He was barely literate enough to pen a brief and largely incoherent scientific paper of his original research for his local Bolshevik scientific journal, even with the assistance of his Communist-cadre associate. But his casual metaphors, unflagging exhortations to workers for greater labour and output, and his folksy agricultural-anthropological parables implied the possibility for a Neo-Lamarckian, Marxist-Stalinist eugenics to produce the ‘New Soviet Man’ (and woman). This uncodified eutenic potential, personified by Lysenko, was the most obvious propaganda value of Marxist-Michurinism. This tacit political extension of Lysenkoism

²²⁰ See Kohlman (2011) for a brief account of the rise and first fall of Lysenko; or Ethan Pollock (2006) for an extended account of *Stalin and the Soviet Science Wars*; or Sir Julian Huxley (1949) for a contemporary analysis of *Heredity East and West: Lysenko and World Science*. Huxley’s book is poignant for its discussion of J.B.S. Haldane’s long-suffering support for Lysenko and Soviet science and society, and his ostracism from the conventionally hereditarian Western scientific community as a result. For this aspect, refer to Haldane (1940) in “Lysenko and Genetics,” in which he again showed his willingness to be cast as a modern Daedalus.

actually eclipsed the limited Party enthusiasm and support for the few large-scale agricultural programs based on his ideas that were actually implemented, as articulated by Roll-Hansen (2008) in “Wishful Science: The Persistence of T. D. Lysenko’s Agrobiology in the Politics of Science.”

The other main arena for Lysenkoism or neo-Lamarckian eugenics, was the Mao regime in Communist China that borrowed the progressive Marxist eugenics of Stalinist Russia and adapted it to local conditions and initiatives, most infamously in Mao’s grand project for rapid societal progress and industrialization known as ‘The Great Leap Forward’ from 1958 – 1962 (Dikötter, 2011). At the same time, and at least until Mao’s death in 1976, western genetics and ‘fascist eugenics’ were given the same hostile rhetorical treatment in Communist China as during Stalin’s reign in Russia.²²¹

It should be stressed that there was absolutely no indication of any Bolshevik influence in W. R. Brain’s work. Given his medical-scientific pedigree and later elevation to British aristocracy, there is no reason to expect any acquired Marxist-Michurinist characteristics in his later life; which included the palliative care of Winston Churchill, one of the most ardent anti-Communists of his time. It would seem Dr. Brain’s brand of Neo-Lamarckianism in *Galatea* was an example of the simultaneous spontaneous evolution of a parallel meme, something Brain had criticized in his condemnation of Neo-Darwinian dogma for the inheritance of complex physical changes. This rapid ‘horizontal’ spread of parallel memes in disparate societies is one of the main differences between the slow evolution of biological traits versus the rapid transmission of acquired knowledge or attitudes in human culture, and a source of confusion in many adherents of naïve Lamarckian theories.

The Spiritual-Scientific Case for Neo-Lamarckian Inheritance

Dr. Brain tentatively began to build his case for acquired changes becoming heritable by asking a pair of rhetorical questions, and then appealing to the mysterious metaphysical unknown that positivistic science has few answers for. Brain conceded that “the idea that initiative is a factor of importance in evolution will certainly be contested” (p. 47) and he immediately turned to arguments against his idea.

Is it conceivable that a true initiative should exist in nature, and that changes should occur, which are not induced by, but which exploit the environment? Is it not possible that the ancestors of man began to stand upright on their legs, not because their legs suddenly altered, nor because of a shortage of tree, but because they were pioneers? To suppose that all evolutionary change is the effect either of germinal mutation or of environmental influence is a pure assumption. Only this assumption prevents us from believing that there occurs in nature a novelty of another kind, which is of the spirit that bloweth where it listeth and the manner of whose coming is known to no man—not even the biologist. (p. 46, 47)

²²¹ See Wu Ta-kun “A Critique of Neo-Malthusian Theory” (1960) for an example of Maoist anti-eugenics rhetoric.

The first objection, that “Science has no room for the incalculable” (p. 47), led to an explanation of the methods by which modern science attempted to explain complex phenomenon through simplification and by creating artificial models based on similar phenomenon; most spectacularly successful in the physics of Newton and the chemistry of Dalton. Its extension to biology and human affairs was far-reaching in its effects, but as Brain asserted: “Many biologists regard this working hypothesis as though it were the whole truth about biological events,” leading them to “slip unconsciously into a philosophical determinism” (p. 48). He blamed the origin for this “facile determinist pseudo-philosophy” on inadequate philosophical preparation in modern scientific training, where it “exercises a depressing tyranny over the minds of many laboratory workers” (p. 48).

Brain hoped this deplorable situation would improve with the challenge to Newtonian determinism from the new frontiers of relativity and quantum mechanics in the realm of physics and chemistry, and opposition to the “psychological determinism of the Behaviourists” (p. 49). The inadequacy of this deterministic scheme in the biological realm was illustrated by “the geometrical progression of improbabilities which Neo-Darwinism must postulate in order to account for evolution;” and Brain argued that this determinism was “breaking-down through its defectiveness as a scientific method” (p. 49). Brain concluded his discussion of arguments against the inheritance of acquired changes by considering those supporters “who would admit the existence of initiative in man, but who would find it difficult to imagine any corresponding activity in lower forms of life”:

Initiative however, does not imply either judgment or self-consciousness. If it exist in man, the doctrine of evolutionary continuity seems to require that it should have been derived and developed from a form of spontaneity present in the lower animals. There is much to be said for regarding a simple form of... spontaneity of response as a property of life itself. (p. 51, 52)

Having thus dealt with the arguments against, Brain turned to the possibilities for the realization among the scientific community of his “spontaneous acquisition of new characters” (p. 52) in the evolution of life-forms. Despite his prior accusation of determinism among the Behaviourists, he posited the best chance for manifestation of his concept of initiative was in the realm of behaviour, not structure, and argued that the biologists’ historical predilection for anatomy and morphology was the reason for the dearth of attention thus far.

Discussing the future possibilities for experiments that might support his hypothesis of spontaneous acquisition of new characters, Dr. Brain alluded to the pioneering research of another *To-day and To-morrow* contributor, psychologist and fellow Neo-Lamarckian, William McDougall (*Janus*,

or the *Conquest of War, a Psychological Inquiry*, 1927).²²² But Dr. Brain did not expect immediate definitive results from this approach and cautioned that experimental failure, like those that went before them, should not be considered proof against the concept:

It seems then that the experiments most likely to demonstrate the possible inheritance of ‘induced’ characteristics would be attempts to control the behaviour of successive generations of animal. It is therefore of interest that Prof. McDougall is at present investigating the possible inheritance of acquired modes of behaviour in rats. (p. 53)

Initiative if it be indeed a source of heritable characteristics, is unlikely to manifest itself under experimental conditions. Attempts to compel living organisms to acquire characteristics are methods far removed from those of nature, and it is a strange spontaneity which is evoked by the compulsion of the experimenter. If characteristics so induced should fail to be inherited, it would prove nothing concerning the inheritance of spontaneously acquired characteristics. The organism that complies against its will may well remain germinally of the same opinion still without prejudice to its ability to transmit a character achieved by its own initiative. (p. 53, 54)

Brain defended his hypothesis, despite the lack of experimental evidence to date, by an attack on the doctrine of the “immortality of the germ-plasm” (p. 54), first proposed by August Weismann, and now an article of faith for strict Neo-Darwinism. Brain decried this doctrine “is maintained with such fervor by some biologists that it appears to be at times a psychological compensation for a loss of faith in the immortality of the soul” (p. 55). He admitted this was true in unicellular organisms that reproduce by binary fission, but it lost its meaning when applied to sexual reproduction, especially in higher animals. After a brief description of the essential differences between meiosis (in sexual reproduction) and mitosis (in the amoeba), he pronounced this doctrine false, saying it “really means little more than the continuity of life” (p. 57).

As for the independence of the germ-plasm from the rest of the body, Brain conceded this point on the basis of current knowledge, but was unwilling to give-up on some method by which the body signals or modifies the germ plasm being found in the future. Like Haldane, Russell, Jennings and other authors in the series, Brain pointed to the research being done on the action of hormones produced by the ‘ductless glands’ that were causing such a stir in biology at that time (p. 59). Although he proposed no mechanism by which such chemical messengers could actually change genes or lead to novel body structures, he offered hope that “unexpected developments of physiological knowledge will reveal a process,” and that “new biological concepts” would prove the problem was largely “a product of our mode of thinking” (p. 60).

²²² William McDougall, F.R.S. (1871 – 1938) was a renowned psychologist that opposed behaviorism and supported neo-Lamarckism. He was involved in the early British eugenics movement, moving from Oxford to Harvard in 1920, and then on to Duke University in 1927. He was featured in one *Eugenics* Symposium in 1929 (see Appendix IV).

In the last two chapters of *Galatea*, Brain dealt with these problems in the mode(s) of thinking by modern scientists, and the special difficulties involved in extrapolating from the non-living realms of physics and chemistry to the world of living-things in biology and human affairs. Although these criticisms had been around for decades, if not centuries, Brain's experience with the negative reactions of scientists to his Neo-Lamarckian philosophical creed seems to have spurred considerable thought and metacognition.

Dr. Brain began his penultimate Chapter IV with the assertion that "Science deals only with abstractions" (p. 61). The problem of complexity, especially in living-things made the simplification and abstractions of biological and social sciences especially problematic. He again turned to the separation of form (in anatomy and morphology) from function (in physiology and its specialties), as a case in point, declaring the study of function to be in a markedly backward-state compared to form. Part of this problem was due to the ephemeral nature of biological functions, requiring whole living beings for study, rather than preserved parts of specimens. He attributed part of the blame to the rapid advances and great successes of the physical sciences, and the "development of the philosophy of materialism:"²²³

From the union of a too limited notion of evolution and an unlimited faith in physical chemistry has sprung a progeny of illegitimate ideas to the influence of which no limit can be set. International peace, political stability, religious faith and mental balance have been disintegrated by their malign catalysis. (p. 63)

He used the example of the circulatory system in higher animals to illustrate the problems of considering form and function as separate entities, and the special difficulties that intermittent functions of short duration present to the abstractions or models of the circulatory system; which left-out so many important factors in the interest of simplicity and comprehensibility. Brain also used the historical misconceptions about the functions of the heart and circulatory networks to buttress his criticisms of the study of evolution by examinations of the remnants of extinct animals, in the absence of living specimens to examine actual functions. He asserted the human mind, especially the analytic scientific mind, is conditioned to think in terms of "form as reality and function as an elusive activity generated in some way by form" (p. 68).

²²³ This critique of materialism was ironic considering that materialism was a memetic 'sacred cow' for the Soviet version of Neo-Lamarckianism and its proponents like Trofim Lysenko.

This unconscious conditioning is unrecognized, and prevents us from realizing “that in the living organism form is more remote from reality than function” and these errors are underpinned by the “whole materialist philosophy” (p. 69):

The whole materialist philosophy subsists on a failure to recognize the abstract nature of form and function. By abstraction from duration the organism is reduced to form, which is dissected into its minutest elements, atoms, or even electrons. It is then supposed that all that is needed to reconstruct the reality of the organism in all its fullness is to picture the atoms and electrons behaving in accordance with the laws with which we are familiar in organic objects, and that organic function is nothing more than this. The materialist points to the success in bio-chemistry in dealing with the tissues according to these laws as evidence of the truth of this assumption. It would be as true to say that, because a complete account of the structure of a cathedral can be given in mathematical terms, we have every hope of being able to explain religion in terms of builders’ quantities. (p. 69, 70)

Brain labeled Neo-Darwinism as the supreme example of this philosophical fallacy, made even worse by the fragmentary nature of the fossil record and the loss of soft-tissues, resulting in a gross over-simplification of evolution as a mere “three-dimensional abstraction, but inadequate to explain four-dimensional reality” (p. 71). He labeled this mechanical conception of evolution, along with similar hereditarian problems in biology as the “Galatean fallacy: thus we seem compelled to believe that the chromosomes of the germ-cell, minute structures in an infinitesimal body, can contain in some way the potentialities of the countless characters of a full-grown man” (p. 72). He used multiple exemplars of bone, the circulatory system, and even the difference between sculpture versus music and poetry to illustrate and amplify his points. Progressing to the process of cell division in the gametes versus the somatic cells of the body, Dr. Brain offered a Neo-Lamarckian interpretation of these processes, emphasizing function and development rather than pure form. Brain even enlisted the authority of “Prof. Jennings” in *Prometheus* (1925 - see review in Chapter III) to gird his arguments:

As Prof. Jennings puts it: “Every cell of the body continues to contain the entire set of parental chemicals, just as the egg did. The differences between the diverse cells of the body are, therefore, not in their substances, not in the genes they contain, but in the remaining part of the cells, the cytoplasm.” Embryology furnishes interesting evidence that in the earlier stages of development the fate of any particular cell is far from being determined by its contents. What it becomes appears to depend upon influences entirely external to it. (p. 81, 82)

Continuing his discussion of the operations of genes and chromosomes in the germ-plasm and the whole organism, Brain maintained his attack on mechanistic biology, using the same metaphor of discrete jars of chemicals in a chemical laboratory used by Jennings in *Prometheus* to make the case for

the possibility of a holistic control over the ultimate development of the organism and the operation of a “non-mechanical mode of unity among” the cells of an organism (84-86). He offers this summary indictment of the mechanistic philosophy barring the way to true biological progress:

It is clear that we are here dealing with relationships which are without parallel in the inorganic world. It should not surprise us, therefore, if conceptions which are serviceable in physics and chemistry are inapplicable to them. It is evident that new concepts are needed. Biological thought is exhausted by prolonged parthenogenesis and requires fertilization. (p. 87)

In Chapter V, Dr. Brain pressed his attack on this Mechanistic philosophy, despite its great utility in the physical sciences, when it was applied to the problems of biology and life: “Religion, getting no help from philosophy has fled the field of battle; while psychology, in the form of behaviourism, has joined the enemy in an alliance of convenience (p. 89). He hoped that “the tyranny of the Mechanistic philosophy is coming to an end” and pointed vaguely at the revolutions of relativity and quantum mechanics in physics, and the slow adaptation of philosophy, “never wholly uncritical of Mechanism” to a “new conceptual system to replace it” (p. 90). He predicted that eventually “the gulf between life and matter will be bridged by the application of biological concepts to matter—life’s ironic revenge on materialism” and predicts this will require a new “autonomy for the sciences of life and mind” (p. 91). Once “emancipated,” the biological sciences would be able to apply these new conceptions to other areas, and he anticipated the arrival of the “Einstein of Biology” to correct the excesses of the mechanistic universe in the hands of the Neo-Darwinian memetic offspring of “the Newton of Biology” (p. 91), much as Christ’s Gospels corrected the errors and heresies of the Old Testament. Brain rated the philosophic approach used by scientists as being at least as important as the scientific method, and invoked the ethical “duty of Philosophy” to expose the fallacies of unproven hypotheses, before they formed “a vast edifice of pseudo-science and pseudo-philosophy” (p. 92).

The last few pages of *Galatea* were an appeal to accept Neo-Lamarckism as an alternative to the established facts of Neo-Darwinism. He briefly recounted their common ground, and the strengths of Neo-Darwinism. His main recommendation for the addition of Lamarckian concepts to evolutionary science related to the interpretation of mutations in nature:

We should expect that other organisms are as capable as man of profiting by good fortune, in other words that chance mutations have survival value. But it is significant that the great majority of mutations which have been observed under experimental conditions have been pathological. Many would never have been perpetuated in normal circumstances, but were only saved from extinction by the dysgenic interest of the investigator... Neo-Lamarckism relegates this blind and random prodigality of mutation to a secondary place in the economy of evolution. It transfers the emphasis from form to function and seeks the main source of novelty in behaviour rather than in chemical change. (p. 93, 94)

Charles Darwin, like Lamarck, believed that the inheritance of acquired characteristics played an important part in evolution. His followers have rejected this view. Is it rash to believe that the insight of the master led him nearer the truth than their agnosticism has brought his disciples, and that the future of Darwinism is—Darwinism? (p. 95)

A partial meme-map for *Galatea* is shown below in Figure A3-26:

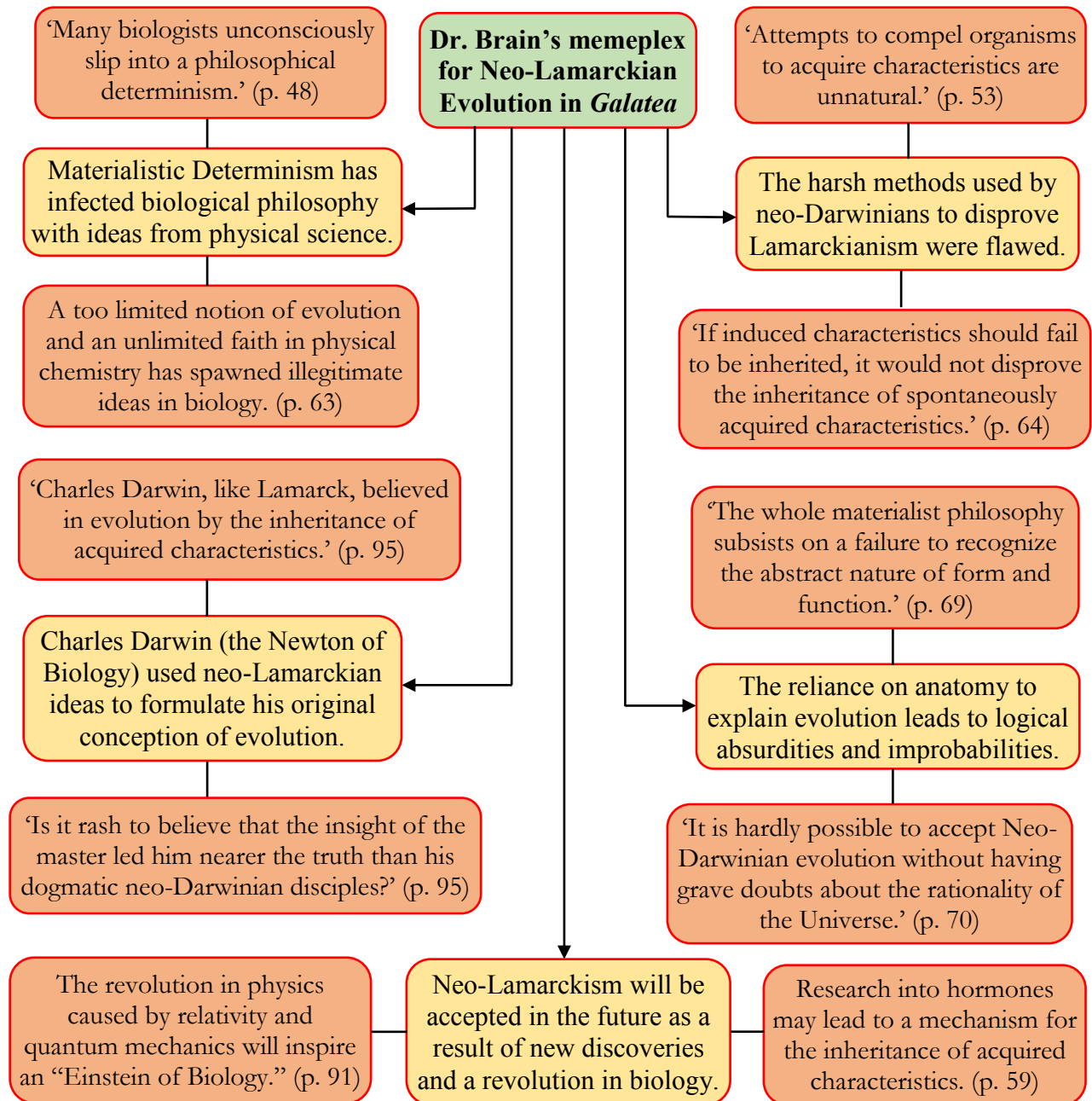


Figure A3-26: A partial meme-map of the neo-Lamarckian memes and clusters expressed in *Galatea*. This was the only volume in the series that explicitly accepted inheritance of acquired characteristics that could be passed-on to future generations through the action of 'biological initiative.'

It is interesting to note Brain's reference to the "dysgenic interest of the investigator" (p. 94) In many ways, the fate of Darwinism in the West was entwined with the shifting destinies of the scientist best known at that time for his research on induced mutations: Hermann J. Muller (1890 – 1967). Muller was an alumnus of T. H. Morgan's famous *Drosophila* Lab at Columbia, a Nobel laureate (1946 in Physiology) for his work on induced mutations by the effects of x-rays, a brief convert to Communism in Stalin's Russia, and an intermittent advocate for a certain brand of reform eugenics.²²⁴ Muller first became involved in eugenics while teaching at the University of Texas in the 1920s, and even performed twin-studies (like Galton and Cyril Burt) to investigate the inheritance of intelligence. With the onset of the Great Depression, Muller drifted through Socialism to Communism, to the intense disapproval of the university leadership and the watchful eye of the FBI. He travelled to the Soviet Union in 1933, to work with some of his former graduate students in Leningrad and later in Moscow, at the Institute of Genetics. He continued his research in Russia, and along with numerous Soviet geneticists, medical doctors and agricultural scientists, eventually became the target for attacks by the rival cabal of neo-Lamarckians led by Trofim Lysenko and backed by Stalin and the Party.

Both camps argued for supremacy as the true successors to Darwin, as Darwinism was a celebrated component of Marxism and was elevated almost to religious status in Stalin's U.S.S.R. Wild charges of being conspirators for fascist eugenics, Imperialist Morganist-Mendelism, or membership in the 'Cult of the Fruit-fly' were repeatedly levelled at followers of 'Western genetics' based on Neo-Darwinism. Despite fervent, public displays of their loyalty to Marxism and Materialism and their commitment to Soviet science, the hereditarians were isolated in a sort of ideological quarantine, and put under State surveillance. Muller managed to escape the coming Stalinist purges of the Soviet scientific-medical establishment by volunteering to serve the leftist Republican cause in a medical unit in the Spanish Civil-War, but many of his Russian colleagues were exiled from their academic posts and either executed, sent to gulags in Siberia, or committed suicide before arrest (Pollock, 2009).

Muller managed to seek refuge in England after the Spanish Civil War, before returning to America in 1940 as a bitter anti-Communist and a fierce critic of Stalin and his highly-politicized Soviet-science. Muller again became interested in positive eugenics after the War, even co-founding the 'Repository of Germinal Choice' in California; offering the 'genius sperm' of Nobel laureates or other elite scientists and intellectuals to women looking for neogenic babies. Muller died before it officially opened in the late 1960s, but it was briefly named after him (Carlson, 1981).

²²⁴ See the intimate biography of Muller by his former graduate student turned historian and philosopher of science, Elof Axel Carlson: *Genes, Radiation, and Society: the Life and Work of H.J. Muller* (1981).

Thus the 'Future of Darwinism,' rather than bridging the gap between Neo-Darwinism and Neo-Lamarckism, actually became caught-up in the struggle for rival global ideologies: in the eugenics movement, in Stalin's Russia, in World War II and the Cold War; and even in the anti-War and anti-Nuclear movements in which Hermann Muller played a prominent role, along with Bertrand Russell and his pacifist Pugwash Institute. But outside the Communist Bloc, Brain's prediction for a resurgence of the Neo-Lamarckian paradigm hit an evolutionary dead-end, or at least a period of prolonged memetic dormancy. Slow sales of Brain's *Galatea* did not warrant a second or subsequent impression; although it did manage to make the cut for Routledge's republication of the *To-day and Tomorrow* Series beginning in 2009, at least extending its limited memetic lifespan temporarily.

The Neo-Vitalism of R.C. Macfie's *Metanthropos, or the Body of the Future* in the *To-day and To-morrow* Series

Human evolution was a staple topic in the early volumes of the *To-day and To-morrow* series, from the 'ectogenetically optimistic' series inauguration *Daedalus* (1923) by J. B. S. Haldane (see review in Chapter III); to the 'indeniably pessimistic' prophecy of doom through racial degeneration in F. C. S. Schiller's *Tantalus* (1924), and the racial anthropology of F. G. Crookshank's *The Mongol in our Midst* (1924), both reviewed in this appendix. All these authors were central figures in period British eugenics and could be described as typical hereditarians, that is *neo-Darwinian* disciples of Charles Darwin as clarified by August Weismann; rather than latter-day disciples of Jean Baptiste Lamarck. An environmentalist (euthenics) thrust in the series came with the release of H. S. Jennings' rather agnostic *Prometheus, or Biology and the Advancement of Man* (1925), the first volume by an American author. This was extended into overtly neo-Lamarckian territory in *Galatea, or the Future of Darwinism* (1927), by Dr. Walter Russell Brain. These authors and volumes were in turn succeeded by Scottish doctor, poet, and science popularizer Dr. Ronald Campbell Macfie's (1867-1931) *Metanthropos, or the Body of the Future* (1928). Macfie's neo-Vitalist addition to the series focused on the evolution of the body, and especially the neopallium (or neo-cortex) of the brain. See title-page and promotional review for *Metanthropos* in Figure A3-27 below:

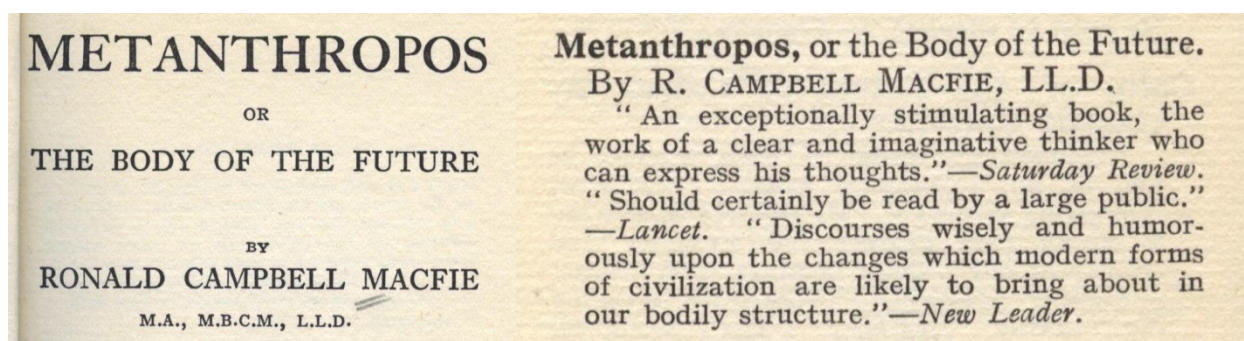


Figure A3-27: *Metanthropos* title-page showing MacFie's academic-medical-scientific credentials and the *To-day and To-morrow* promotional mini-reviews for the book.

Dr. Macfie received his medical degree in 1897 at Aberdeen, and eventually specialized in the treatment of tuberculosis, one of the secular demons of both euthenics and eugenics. Macfie was one of the senior authors of the series; already having several euthenic and popular-science books, volumes of poetry and many journal and popular magazine articles to his credit before *Metanthropos* (Bowler, 2009). The list included the rather like-minded ancestor: *Heredity, Evolution, and Vitalism* (1912) in which Macfie propounded a form of neo-Vitalism, positing an unknown cosmic force

guiding evolution in a sort of ‘punctuated equilibrium’ or ‘evolution by saltation’ that would later recur as a scientific debate in the 1970s, once recapitulated and re-popularized by Stephen Jay Gould (Sterelny, 2001). *Metanthropos* offered another viewpoint on human evolution to the series, one that included a limited tolerance for, and discussion of eugenics (both negative and positive); but Macfie focused much more on euthenic improvements and past/future mental evolution, rather than simply harping on physical or moral degeneration, like Schiller or Ludovici. It was not the final word on the subject in the series either. That honor went to Sir Arthur Keith – the Dean of British anthropologists and oft-cited authority by numerous *To-day and To-morrow* series authors – in his series contribution: *Ethnos; or the Problem of Race considered from an Anthropological Standpoint* (1931), one of the last published.

Metanthropos is organized into four chapters, which all premise development and evolution of the body: from the murky geologic past, through the radical Paleo- and Neolithic periods, to the present and future potentialities. Macfie cites the work or ideas of numerous authors in the series, and is the *only* author to overtly mention F. G. Crookshank’s *The Mongol in our Midst* (1924). Each chapter is prefaced with two to four quotations by eminent clerics, poets, scientists or philosophers, acting like authoritative tone-poems to set the memetic scene. See Figure A3-28 below for a partial sampling of these meditative vignettes:

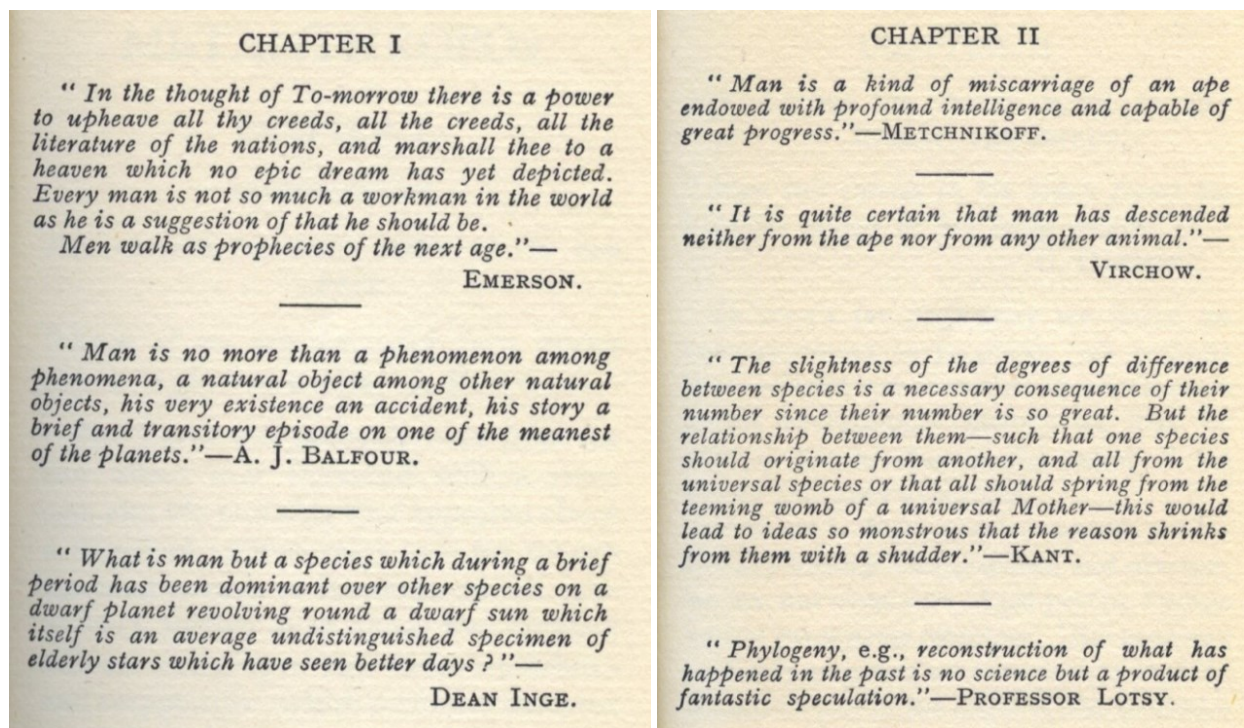


Figure A3-28: Exemplars of collected thematic quotes prefacing the beginnings of Chapters I and II.

The introductory chapter, like Genesis, covered the formation of the earth and the appearance of the first life forms, which Macfie dated to about one billion years ago, featuring bacteria-like proto-cells “that swarmed in multitudes” before the Cambrian explosion (p. 7). He credited worms as the “Edison of organic life,” inventing in their living-laboratories the genetic recipes for “teeth, eyes, ears, nerves and blood-vessels” and foreshadowing the future body-plans of crabs, spiders, insects and mollusks (p. 7). He even invoked J. M. Tyler’s musings on man’s distant worm ancestry: “Even if we are descended from worms, they were glorious worms” and Emerson: “And striving to be man the worm mounts through all the spires of form” (p. 8). From worms, Macfie passed the evolutionary torch to mollusks, some of whom progressed to become fish, amphibian, reptile and mammal; all of whom passed-on some tissue, organ or faculty to man, even providing exemplars of some British cultural and scientific giants who inherited overflowing measures of innovation as proof-of-concept for the principle of fortuitous saltations:

From the worm the human species got its red blood, from the tunicate its backbone; from the fish its camera eye, from the Triton its five fingers, from the duckbilled platypus and the spiny ant-eater its mammary glands; from the kangaroo its nipples; from the hedgehog and anaptomorphid its placenta, and its neopallium. The wriggling worm and the placid oyster acquired fins, and hands, and feet, and eventually in a thousand million years a few progressive bacteria were transmogrified into Newtons, and Kelvins, and Shakespeares, and Huxleys and Darwins, which made pleasant feeding for the other bacteria of more conservative tendencies. (p. 10, 11)

Having summarized the great pageant of evolution in just a few pages, culminating at the arrival of man, Macfie asked these rhetorical questions: “Can we perhaps from such a past foretell his future? Can we map out a curve from the nebula through the amoeba, and worm and pithecanthropus, and man, to the Metanthropos of the future?” (p. 10). Of course, the answer was no, and he insisted we had no right nor reason to infer from the distant past to the future, or to assume that the rate of progress was equal in all periods, or even to predict the direction and nature of future evolution from any direction or nature of evolution in the past. He argued such prophesy was reckless, but did not yet take specific aim at Haldane or any of the prophets in the series that did exactly that in their volumes.

Macfie used the examples of recent discoveries of radioactive elements, new types of cosmic radiation, and the radical influence of hormones and endocrine glands, then all novelties, to label as foolishness any attempt to make any specific predictions for the evolutionary future of man. He also used the closing pages of the chapter to introduce his theory for the punctuated equilibrium of evolutionary progress; which was characterized by long stretches geological time with little change in individual species or families, but punctuated by radical changes over the course of a few generations,

during periods of geological upheaval or evolutionary flux. Macfie offered Continental (Zittel) and English (Professor Lull) authorities for this evolution by saltation, at a time when it was considered heresy from the conventional biological doctrine of gradualism; and against which W. R. Brain also protested in *Galatea* (1927), but on behalf of neo-Lamarckian evolution.²²⁵ Macfie acknowledged and quoted Professor Lull for his like-minded grand-synthesis of geological history with “diastrophic” evolutionary history:

The same idea has been worked out by Professor Lull, who has shown the remarkable coincidences between the great blossomings of new forms of life and the great geological diastrophic changes. Perhaps it required the Himalayas to rise from the sea to produce the first breed of men! “There are,” says Lull, “times of quickening the expression point of evolution and these are found coincident with geologic change. These coincidences are so frequent and so exact that the laws of chance need not be invoked to account for them. They stand to each other in the relation of cause and effect.” (p. 13)

This diastrophic history, much like the Great War that had recently decimated British manhood and jeopardized a long dynasty of progress, made predictions about the future of humanity based on snippets of long-past evolutionary history useless at best and delusional at worst. Macfie reminded readers that in addition to the highlights of evolution as recorded in the rocks, there were also “tragic abortions” and “disastrous blunders” that rendered extinct dinosaurs, titanotheres and other megafauna that had ruled past evolutionary dynasties (p. 14). And man was no different with “hits and misses” exhibited by various early races that “prove[d] unfit to survive” being eliminated through competition with stronger, hostile races. Thus no specific predictions for the future of man’s body can be made from the distant past, but only a vague non-committal offer “that if it is going to progress its progress will be slow, possibly with rhythmical accelerations” (p. 15).

Chapter II – Does Man’s Phylogeny Recapitulate Ontogeny?

Having discussed the distant-past of evolutionary history, Macfie turned to man’s more recent phylogeny to determine his possible future, quoting Darwin to summon the appropriate humility for his quest: “Man still carries in his bodily frame the indelible stamp of his lowly origin” (p. 19). He noted at the outset that any predictions are complicated by the sparsity of the fossil record. He

²²⁵ Macfie’s advocacy of evolution by saltation is an example of one of those scientific memes which periodically recur and either wax or wane in popularity, much like eugenics. See Kim Sterelny’s *Dawkins vs Gould* (2001) for an overview of the historical debate over gradualism (popularly advocated by Dawkins) versus the varieties of rapid saltation theory or ‘punctuated equilibrium’ favoured by environmentalists and neo-Lamarckians, including Stephen Jay Gould. Dawkins himself also dealt with this controversy in many of his later books on evolution, including *The Blind Watchmaker* (1986), which devoted the last chapter to the “Doomed Rivals” of his preferred gradualist theory.

declared that science had not conclusively shown man's precise lineage in relation to the surviving members of the primates in this pre-DNA scientific-age, relying wholly on the methods of physical anthropology and comparative anatomy to infer relatedness and descent.

Macfie began with Darwin's and Ernst Haeckel's (1834-1919) assertion that man was descended from the old-world Catarrhine monkeys, which T. H. Huxley (1825-1895) had also agreed with. He also quoted W. K. Gregory of the American Museum of Natural History in New York (a subordinate of H. F. Osborn – see next page) as still supporting this hypothesis. Macfie also summarized F. G. Crookshank's bold racial theory from *The Mongol in our Midst* (1924) that "argues that the Caucasian, Mongolian, and Black races are descendants respectively of the chimpanzee, orang, and the gorilla" (p. 20). However, Macfie discounted these older propositions in favour of a more recent consensus that man split-off the evolutionary tree before the arrival of the great apes, from a common ancestor that would have resembled lemurs more than any present monkey or ape. Here, he enlisted Sir Arthur Keith as an eminent authority, who concurred with many contemporary anthropologists that man, monkeys and apes are collaterals rather than being on a line of direct descent. Macfie offered praise for these purported ancestors of early hominids:

Such a direct lineage of man from the lemurs appeals to one's sense of the eternal fitness of things; for the lemurs are creatures notable for their power of twisting their necks, and of "looking before and after," and for the size of their eyes. In them the Eye, for the first time, took priority of the Nose, and in their neopallium were laid the foundations of the great visual and tactile centres of association in the neopallium of the higher Primates. (p. 21)

From there, Macfie considered the evolutionary progress versus degeneration in man's organs and other anatomical features. He offered the opinion of German anatomist Robert Wiedersheim (1848-1923 - who gained fame for his study of vestigial organs) who counted 15 organs in man that are distinct improvements over the apes, and 17 that he considered degenerate. But Macfie again emphasized that man budded-off from the primate branch as long as a million years ago, and though there was some parallel evolution of the groups "we have no right to assume that there will ever be anything like complete parallelism or convergence" (p. 23). For instance, Macfie denied there was any reason to believe that man's direct ancestors ever had "an ape's receding jaw, and puny brain, and great supra-orbital ridges" (p. 23), simply because some of man's evolutionary collaterals have these features now. He conceded that as regards the bones of the skull, the great apes were superior to modern man, whose skull was more fragile and primitive, "like the skull of a *Tarsius* or a gibbon;" but also granted the likely possibility that humans "will even yet progress and grow more ape-like in its progress" (p. 24). Macfie also refuted the old conventional arguments inferring modern man's close

kinship to Pithecanthropus, Piltdown, Neanderthal, Rhodesian and Heidelberg skulls, stating that “science tells us that these ancient men were not linear ancestors of modern man: they were side lines that perished” (p. 24).

It was here that Macfie flashed-forward to introduce perhaps the most eugenically favoured men of Neolithic antiquity: the Cro-Magnon Man. This marvel of evolution was a staple in eugenic lore: ranging from Galton’s writings, Continental anthropology and the oft-quoted Sir Arthur Keith. Cro-Magnon was a central protagonist in H. F. Osborn’s *Men of the Old Stone Age* (1915), Madison Grant’s *The Passing of the Great Race* (1916), and was made famous at H. F. Osborn’s *American Museum of Natural History* in New York (see Figure A3-29 below).²²⁶ Macfie offered this short, glowing racial biography:

The Cromagnon men were quite modern in type, indeed, bodily speaking they were... superior to the human type of to-day. As their skeletons show they were a handsome, tall race. They had high, broad brows, aquiline noses, and prominent, well-shaped chins. The men had an average of six feet one and a half inches, and possessed brains larger than the brains of the modern man, and though the women were much smaller, even their brains were larger than the brains of the average Londoner to-day. (p. 25)



Figure A3-29: Bronze cast and cave-painting scene of Cro-Magnon Man from H. F. Osborn’s *American Museum of Natural History*, site of the Second International Eugenics Congress in 1921, and made famous in the movie-franchise *Night at the Museum* (with Robin Williams as “Teddy” Roosevelt).

²²⁶ For more on Osborn, Grant and American racial eugenics, see Kohlman (2012): “The Anthropology of Eugenics in America: Ethnographic, race-hygiene and human geography solutions to the great crises of Progressive America.” *Alberta Science Education Journal*, 42(2), 32-53.

Macfie also praised Cro-Magnon artistic talent, as seen in photos of lavish cave-paintings near the village in France for which they are named. However, he curtly minimized the “lower Grimaldi race [who immigrated from Northern Africa] with round high skulls” (p. 26) without further complementary adjectives, but nonetheless granted them membership in *Homo sapiens*.

Consistent with his earlier denials of man’s close kinship with the apes, Macfie also politely debunked Ernst Haeckel’s old “phylogeny recapitulates ontogeny” concept as “exceedingly questionable” (p. 27) and refuted the common narrative of embryonic stages mimicking an imagined evolutionary lineage through apes and monkeys, based on minute, transient features in the fetus. He offered the counter-example of the human foot that shows no ape-like features in its development.

Having arrived at anatomically modern humans from our distant anthropoid ancestors, Macfie again denied that this evolutionary past was of much value in predicting our distant evolutionary future, but it did have the genetically useful value of “telling us something of the past and present potentialities of the ‘genes’ of his phylum and some potentialities seen in other kindred animals but yet unrealized in his body” (p. 28). He offered some fantastic futuristic scenarios: starring hairy bodies, sharp teeth and long tails in humans; or hairless, brainy apes possibly inheriting our title as dominant “hyperanthropoi” of the far future; foreshadowing the popular, recently rebooted science fiction franchise, *Planet of the Apes*. Macfie also discussed rare atavistic ‘throwbacks’ or freak reversions to more primitive types: “individuals and races that grow hairy like the great apes; we find in some cases children born with tails”... and “men of the Neanderthal type suddenly cropping up” (p. 30). But such alarmism was countered with the assertion, using Sir Arthur Keith as an authority, that man differed mainly from the apes “because of different action of his endocrine glands, and this obviously implies the possibility either of rapid convergence or divergence,” which if further altered “might give men tails, or chimpanzees chins” and thus “the future of man’s body lies not so much in the potentialities of his germ-genes in general as in the activities of his endocrine glands” (p. 30, 31). Macfie stopped just-short of presciently diagnosing these ‘throwbacks’ as endocrine disorders. Having dealt again with man’s future body, Macfie closed the chapter by again turning to the real potential for evolutionary progress in modern man: the further development of that part of the human brain that truly separates man from the apes:

Whatever caused the growth in the neopallium, whether it was the inevitable result of the molecular machinery in the aeon-old germ-plasm or caused by local changes in some of the endocrine glands, such as the thymus, due to changed diet, the fact remains that the most striking feature of the evolution of man has been the growth of the neopallium that made it possible for poor, naked defenseless man, with his weak little jaws and arms, to survive through the fierce Glacial Age. It is this neopallium which has made man the King of the Mammals and of the whole world to-day. (p. 31, 32)

Chapter III: Extrapolating the Future of Man's Body from the Present

Next, Macfie turned to the present state of the human body and mind, and like W. R. Brain in *Galatea*, he considered the amazing “quarter-circle turn in the vertical plane” that transformed the quadrupeds into upright humans. Both authors considered the myriad anatomical and nervous changes involved in this quarter-turn, and Macfie again used the scientific clout of Sir Arthur Keith and T. H. Huxley to remark on the wonderful control over developing tissues and organs exhibited in the embryo. While other scientists were cited (J. A. Thompson and E. G. Conklin) that believed human evolution had nearly come to an end, Macfie asserted that even in the best human specimens, there were signs of ongoing evolution. But whereas Brain used this harmonious orchestration of biological activity to argue for Lamarckian evolutionary progress based on human “initiative,” Macfie took a more hereditarian tack and considered again the puzzle of the roughly one-hundred vestigial organs, as enumerated by Wiedersheim. Macfie detected no evolutionary processes or “machinery in evolution” working to remove vestigial structures, and argued that “in a perfect human body these would be removed” (p. 39). He noted the wise conservatism and ingenuity of nature in turning old structures, such as a fish’s gill arches, into new structures with novel functions, like the tiny ossicles of the middle-ear, and predicted that some of these so-called vestigial organs might develop further in the distant future to fulfill some new, unforeseen purpose.

Having again discussed actual and possible bodily changes, Macfie once more turned to the most promising area for future human evolution; the further development of the brain, especially the neopallium. He again marveled at the delicacy and synergistic evolutionary import of this thin layer of cells wrapped over-top the mammalian brain, rated as the most novel feature that gave man dominion over the savage animals and the great apes. Here though, there were also disturbing signs of a lack of progress since the Paleolithic age; perhaps a case of arrested development, or in some races, even evidence of degeneration from their ancestors. He pointed to new discoveries of ancient human skulls and skeletons, including this observation: “the Piltdown skull was large enough to hold the brain of an Anatole France or a Liebig, and both Neanderthal and Cromagnon skulls were of larger cranial capacity than modern skulls” (p. 45)²²⁷ (See Figure A3-31). This assertion was made long before it became ‘politically incorrect’ to correlate intelligence with cranial capacity in modern humans, and was part of a long tradition of questionable empirical cranial capacity measurements (Gould, 1981).

²²⁷ The “Piltdown” as it appears here (or Piltdown) skull is one of the most infamous and embarrassing hoaxes in modern science, fooling many eminent British anthropologists and biologists for decades, including the renowned Sir Arthur Keith (who died before it was conclusively debunked – see next page). It was later determined to be a planted abnormal human skull of recent vintage artificially aged to look ancient, and a partial jaw from an orangutan.

From these and other specimens Macfie saw “no reason to believe that the cerebral endowments of the best modern men are superior to the cerebral endowments of the best Cromagnon men or of the best Egyptians and Greeks” (p. 45). Here he quoted “Julian Huxley (grandson of T. H. Huxley)” in his likeminded assessment of the lack of progress “during the whole of the artistic period (and probably much longer) in the higher level of intellectual, artistic or ethical possibility... The general run of human nature and human capacity has remained the same for thousands of years” (p. 45). Macfie also found modern man lacking when compared to the Greeks of antiquity, and “wonders whether the modern brain has not deteriorated” and he belaboured the lack of any sign of new mental powers or faculties:

So far there seems to be no signs of any new experiments of Nature: so far there are no signs of new senses or new faculties, for the alleged new psychic faculty is a sign chiefly of a degeneration of the old intellectual faculties in those who claim it, in those who allege it, and in those who believe in it. Even a calculating prodigy, even a Newton, or Beethoven, or Leonardo, or Shakespeare, does not transcend the swing of normal intra-species variation. (p. 46)

But after this somber assessment of stalled progress, Macfie promised “there is still some room for hope” and no reason to despair. Despite the stalled inertia, he still actively promoted the neopallium as the one part of the body “where progress is most likely to make strides” and the only part “where really new developments and really new acquirements are to be looked for” (p. 46). He zeroed-in on the “outer cell-layer of the prefrontal region” for the next saltation in evolution “such as occurred when the molluscs became vertebrates and when the vertebrates became mammals” (p. 46, 47). He listed a number of reasons for his evolutionary stock-tip, including the neopallium’s great complexity, recent heritage, and “because it seems particularly sensitive to environmental conditions” and hormonal stimulation; and since it seemed to vary significantly even in normal individuals (p. 47). He ended this chapter on a progressive note, speculating that even a small transformation of the prefrontal neopallium was capable of punctuating the stalled equilibrium in historical man, and “may have as much value in marking the bounds of a new species of man as a new tail or jaw in marking off a new species of ape” (p. 48).



Figure A3-30: A portrait by John Cooke from 1915 showing the giants of British anthropology examining the legendary Piltdown skull and jaw, along with other species of ape and early hominids. Sir Arthur Keith is featured centre-front, wrapped in the white mantle of science, using the calipers of certainty. This skull was a great coup for British anthropology, finally having a specimen worthy of its Continental rivals, blessed by such an abundance of home-turf hominids and with numerous localities catapulted to popular fame. Despite it being a hoax, Piltdown became a household name. Note the anthropological icon of Sir Charles Darwin in the background, overseeing the proceedings. Retrieved December 12, 2014, from Wikipedia Commons. (wikipedia.org/wiki/Piltdown_Man)

Chapter IV: A New Hope and New Fears

Macfie began the long, closing chapter of *Metanthropos* with the rhetorical question: “Can Man Alter His Future Body?” (p. 51) This was followed by two eugenically-themed quotes from Nietzsche: “Not only onward shalt thou propagate thyself but upward;” and S. Johnson: “I should advise no man to marry who is not likely to propagate intelligence” (p. 51). Macfie offered a “more interesting approach” to the question of man’s future body, considering the machinery of evolution, “not only if the machinery is likely to go on working in man’s body” but whether or not man can control the machinery and thus future human progress (p. 51). He reminded readers that it was the germ-plasm, not the somatic cells of the body that determined evolutionary directions and either upward progress, or degeneration to lower forms. He also reminisced that it took some billion years to transmute the bacterial cell into a fertilized ovum that would grow into a human being, consisting of some twenty-six trillion cells as an infant. This ancient process was still in operation, but was now influenced more by artificial selection and civilization, than the ‘wild-type’ natural selection of our distant forbears.

At this point, Macfie explicitly rejected the Lamarckian process of inheritance of acquired characteristics, which W. R. Brain had argued for in *Galatea*. He summarized the genetic machinery of chromosomes, meiosis and genes, and the immortality of the germ-plasm from the earliest living cells, to today's human beings who sought to understand the operation and wished to control its future. He discussed the awesome roles of genes in directing the expression of all human characteristics, first using the pioneering American geneticist and avid eugenicist, W. E. Castle (1867-1962) to buttress the hereditarian case. He then enlisted geneticist H. S. Jennings (1868-1947) to complicate the simplified hereditarian paradigm with the role of environment and the complex coordination of many genes to achieve a specific result, rather than relying on the older concepts of unit characters and simple-Mendelian traits. Macfie briefly reviewed the development of our scientific understanding of genetics and germinal changes from the nebulous speculation of Charles Darwin to the latest experimental research showing that genetic changes and mutations can be induced by X-rays or certain chemicals (mutagens) as conducted by H. J. Muller (1890-1967 – see review of *Galatea* for more on Muller and his scientific and political evolution with respect to Darwinism and eugenics).

Macfie rejected the pessimism of William Bateson (1861-1926), who decried the lack of reliable controls over germinal changes by external influences, and dismissed Bateson's argument that directed human evolution was hopeless. Instead of "abandoning hope," Macfie hailed the hopeful solution offered by "selection, a factor so powerful... and the "agency that gave evolutionary value to [random] variations and mutations" (p. 57). He illustrated the eugenic value of selection by lethal diseases such as tuberculosis to "weed out" certain genes and certain types of undesirable people:

In Europe alcoholism and tuberculosis are diminishing, largely because families specially susceptible to these diseases have been gradually extirpated. We find that when an unweeded race even to-day is exposed to new diseases the vulnerable are weeded out by the thousands. (p. 58)

Examples and statistics from several recent epidemics in Asia and Oceania were presented, with the implication that these diseases were improving the constitutions of the survivors, and making the resultant race stronger. To the dread epidemic diseases that radically impact selection, Macfie added the selective action of "gene diseases" such as hemophilia, albinism and "weak-mindedness" (p. 59). He also discussed the selective effects of war. Like many contemporary eugenicists, he warned that modern, industrial warfare had become a dysgenic agent, as opposed to the positive selection of hand-to-hand combat eliminating the weak and refining the eugenic value of the victors and veterans in the noble wars of old; before long-range artillery, machine-guns and poison-gas changed the equation. In

addition to the massive-scale of indiscriminate death on the battle-field, the truly dysgenic core of modern warfare was the counter-eugenic selection of the best and fittest men for the armed forces and an early death, while the unfit cowards remained to disproportionately father the next generation.

Macfie also discussed the eugenic value of matrimonial selection, and pondered whether selection of wife by husband, or acceptance of husband by wife was the more important, though he ultimately gave the nod to male prerogative. What is “certain,” he said was that the choice of men had usually been eugenic, and that men chose “women whose secondary sexual characters—luxuriant hair, well developed breasts, large hips, good complexions, and well-nourished bodies, have shown them fit for motherhood” (p. 61). Women’s choices, though more limited, were usually eugenic as well, but however eugenic matrimonial selection had been in the past, it did not result in “new and exclusive mutations,” merely preserving the desired characteristics already evident, helping “to segregate, multiply, and preserve good bodily characters” (p. 61). Macfie further elaborated the racial value of matrimonial selection based on physical attraction in offering increased fertility, as confirmed by empirical study. This higher fertility ultimately had a greater survival value than physical fitness, which he admitted the “eugenic alarmists deplore,” but he minimized their fears: “for fertility nearly always signifies fitness” (p. 62). He managed to bypass the minefields of emigration and religion, by begging “no space here to discuss their action,” but he did have the space to pass-on a recent anecdote suggesting “alcohol by destroying the weak sperm, may winnow out the strongest” (p. 63), in contrast to temperate Americans across the Atlantic who were in the midst of legislated Prohibition.

But, however eugenically valuable matrimonial selection had been in the past, it had recently become jeopardized, in the minds of many authorities, by a number of modern complications:

But to-day the cry goes up that a cessation of selection in man is leading to a deterioration of man’s breed and especially of the Anglo-Saxon race. War long ago ceased to have selective value, and now disease ceases to select because doctors keep the unfit alive, and sexual selection ceases to select both because marriage has become an economic question and because the unfit sometimes breed faster than the fit. Karl Pearson, C. L. Morgan, Ray Lancaster, Professor McBride, R. L. Lock and many other authorities deplore the decadence of the race. (p. 63)

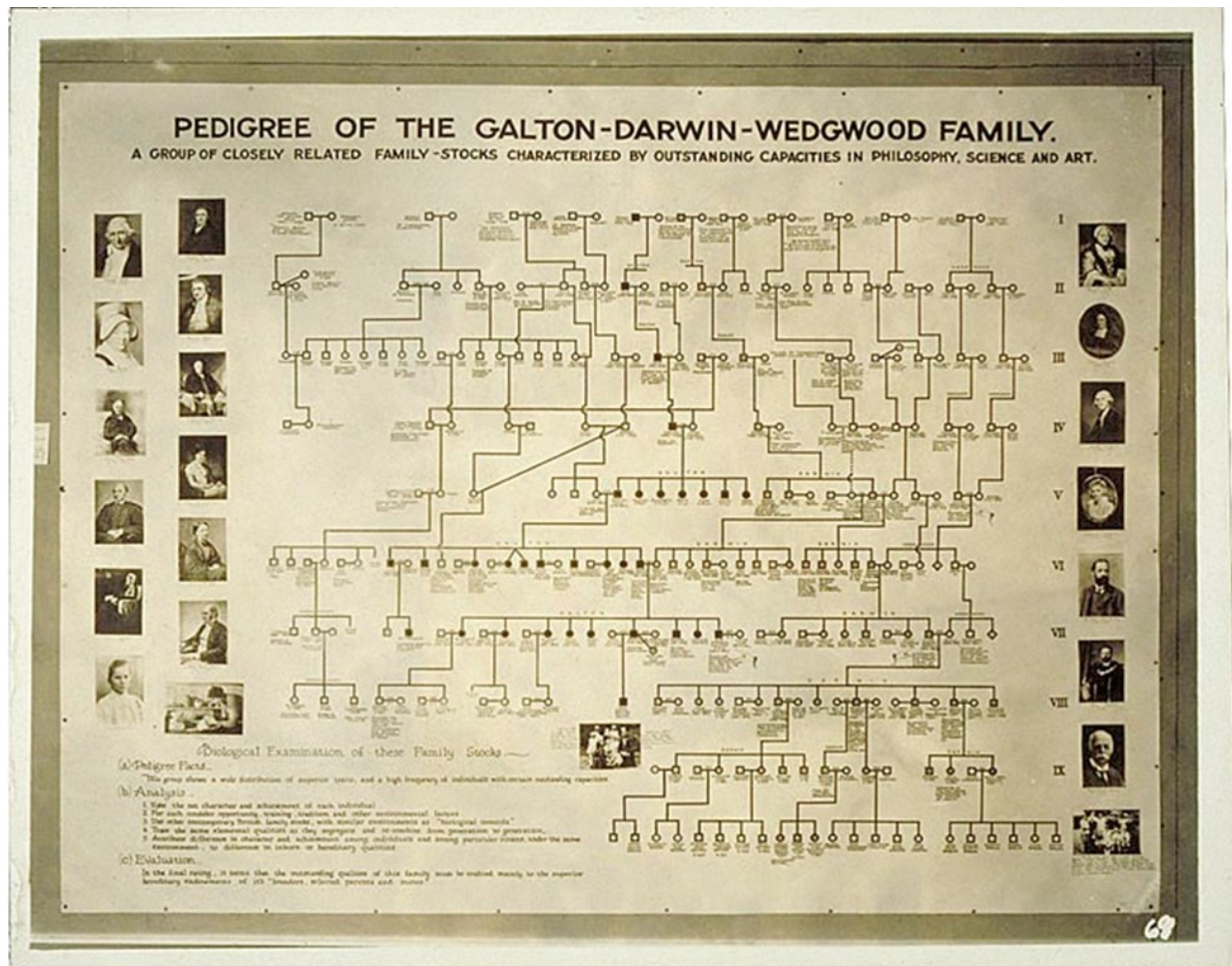
Macfie immediately dismissed this pessimism, boldly asserting: “We think the alarm is a false alarm” (p. 63). He denied selection by disease had ever been wholly for good, and he doubted that the “general level of English humanity is falling” and especially dismissed “whether medical intervention is doing so much harm” (p. 64). He defended his profession by insisting that modern medicine’s greatest impact on selection had been the profound decrease of infant-mortality by infantile enteritis

through modern sanitation and sterile techniques, which had previously killed babies almost indiscriminately. While he grudgingly admitted medicine had preserved “invalids of all sorts—heart cases, liver cases, cancer-cases, and so on” (p. 64), he denied that these actions “worked against the welfare or against the selective evolution of the race” (p. 65). He pointed to the environmental source of much disability or infirmity that would not be heritable, and provided a long list of the ‘Who’s Who of History’ who had some physical or nervous taint, but still managed to seize the day. Macfie even argued that “most of us would prefer to be born of a delicate Stevenson or Huxley than of a robust Dempsey or Haackenschmidt” (p. 66) and hoped for a beneficial roll of the genetic dice to favour intellectual acuity while minimizing physical defect or neurosis in the lottery of human procreation.

Continuing on the subject of racial degeneration and race-suicide, Macfie saw little cause for alarm regarding the higher differential fertility rate of the lower classes. He saw the problem as one of environment, like Dora Russell in *Hypatia* (1925), particularly poor nutrition and health-care, and argued that with proper eutenic improvements, the lower-classes were fully capable of rising to replace any deficit in the middle-class. He used evidence from his numerous medical inspections of recruits and servicemen during the Great War; where men who were marginally substandard when inducted, gradually gained weight, muscle mass and vigour with proper rations and healthy exercise. He saw the inherent conservation of germ-plasm as offering hope for the future, and that with improved sanitation and nutritional regimes, the poor and lower-classes offered the promise of being almost the physical equal of the middle- and upper-classes; “though not in height and beauty” (p. 67):

The C3’s were born of C3 environment not of C3 genes. Luckily the genes are almost foolproof and generations of evil nurture may still leave the physical potentialities of the stock quite unimpaired. (p. 67)

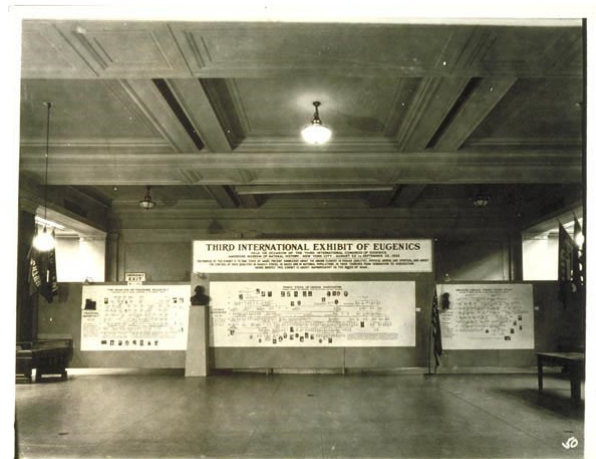
As for mental aptitudes and abilities, Macfie was a little more cautious on this front. He did not see the upper and professional classes as being the product of selective breeding or segregation, like the “Samurai in Japan;” but he did recognize the case, first proposed by Galton (1869, 1883) for ‘inherited genius,’ and pointed to “the Darwin’s, the Huxleys, the Balfours, the Walpoles, the Gregorys, the Haldanes and the Listers, but these are rare, and as a rule there are no intellectual dynasties” (p. 68). See Figure A3-31 on the next page for a pedigree chart of one of these rare eugenically-admired dynasties, and Figure A3-32 for a contrasting display of the so-called ‘white trash’ families of dysgenic lore.



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Figure A3-31: Pedigree chart for the Darwin-Galton-Wedgewood family, used as an international exemplar of hereditary genius and scientific-philosophic-artistic ability at the 3rd International Eugenics Congress, at H. F. Osborn's American Museum of Natural History, in New York, 1932. This intricate chart was followed by eminent American families, including Washington, Lincoln and Teddy Roosevelt, in the wide-view photo seen below:

Figure A3-32: In addition to pedigree charts of exemplary families, other exhibits featured dysgenic families, like the Kallikaks, Jukes and Nam families of eugenics lore, of which Britain did not have an equally infamous analogue. But America supplied the whole world with these illustrated narratives of good and bad heredity and racial progress/degeneration for popular eugenics education and ongoing public debate. Retrieved December 14, 2014, from Virginia State University. www.exhibits.hsl.virginia.edu/eugenics/)



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Macfie concluded that “the genes of the Anglo-Saxon peoples are pretty evenly distributed, and there is little fear of decadence through infertility of its better classes or through the intermarriage of the masses and classes” (p. 69). Nonetheless, he admitted room for improvement or racial progress “by preventing marriages altogether undesirable,” such as “marriage of the feeble-minded.” However, he argued this improvement would take many generations, as the genes that caused feeble-mindedness are “various and recessive” and would only come to light when two feeble-minded persons married, and only in the 1 to 4 ratio predicted by Mendelian genetics. He offered even less hope for breeding-out insanity, as there were so many types, and the same gene combinations that led to insanity also produced genius, as evidenced by many eminent families in which insanity and genius co-occurred.

As for the public hype surrounding the so-called dysgenic or ‘white-trash’ families, such as the Kallikaks, Jukes, Nams, etc., Macfie asserted these were not fair examples. He argued that they must have been saddled with exceptionally poor heredity, and lived for generations in a bad environment, so that using them as indicators of the population as a whole was as unfair as pointing to the Darwins, Huxleys and Haldanes as being representative examples. On the whole, Macfie argued that while eugenics offered some promise for the future, eugenics was not yet ready to be deployed on a large-scale to actually raise the average physical and mental potential of the race:

The time is not yet ripe for what Galton would call a “Jehad.” It is true that in certain American States sterilization of intellectual and moral defectives has been legalized; but so far, we believe the law has rarely been put into operation. (p. 72)

Macfie saw a larger role in the near future for eugenics education, compulsory medical examinations, and he pointed to Austria and Germany as examples where marriage bureau’s offered eugenic advice to prospective couples. He also mentioned a recent initiative by the Fascist League in Genoa (see the review of the feature article on Fascist Eugenics in the End of *Eugenics/People* section of Chapter IV for an exemplar of the kind of fold-eugenics being promoted in Mussolini’s Italy) to provide medical inspections for venereal diseases, tuberculosis, or other infections and counseling, at a time when eugenics was the main disciplinary base for genetic/marriage counselling.

Having considered negative eugenics, Macfie turned to positive measures, pointing to the inordinate success of plant and animal breeders to produce new, improved breeds and hybrids, and he rhetorically wondered if similar improvements were possible in man. While he saw the possibility of improving one or two obvious characteristics through selective breeding, less obvious traits would be much more problematic, and even just deciding what characteristics to focus on would be a challenge, with no guarantee that future racial needs would be the same. He offered a number of examples of

competing demands for desired traits, some quite absurd (like a “Hapsburg lip, or an extra finger, or toe”), or for selecting political alignment or societal beauty ideals. But after this eugenic exercise, Macfie returned to matrimonial selection as a more reliable and natural method for selective breeding, and offered this quip by the now infamous Professor Cattell: “Cupid is a safer guide in matrimony than a licensing board” (p. 74), as a likeminded authority.²²⁸

In a poetic passage of romantic rationalization, Macfie sketched vignettes testifying to the eugenic selection mechanism operating in *healthy* prospective mates, through the natural agency of physical attraction; via luxuriant hair and well-developed breasts in women; and broad shoulders, small hips, good limbs and strength in men. He then did the same for moral qualities: gentle, unselfish, loving in women; and intellectual force, virility and a strong drive to provide for family in men. In each marriage of partners with these eugenical stock characters, many children that were physically attractive and healthy, with proper maternal or paternal virtues are produced, and who would in turn replenish the race:

There is indeed is in healthy mutual attraction, a most admirable device to effect a blend of the best characters in both sexes, a device whose subtle efficiency no bureau of matrimonial advice can emulate. As a rule, too, attraction is assortative so that deep calls to deep and like marries like, and thus there is a tendency to augment the same good qualities. Probably matrimonial selection has had something to do with collecting and heaping up the genes of families like the Darwins, and Haldanes, and Huxleys, and Bach’s—Charles Darwin it will be remembered took a wife from an intellectual family—the Wedgewoods. (p. 75, 76)

But what happened with matrimonial selection in *unhealthy* stocks? Macfie confessed that like attracted like among the unhealthy too, and “a bad stock seems particularly fecund” so that these crosses may hasten “the extinction that awaits the hopelessly unfit” (p. 76). He warned that in these cases, selection had the capacity to degrade as well, so that if the unhealthy were allowed free-reign “the race or nation will be at the mercy of any race or nation that has made more of the same or almost the same material” (p. 77). Macfie saw no great cause for worry in the working classes, but was concerned by the low fecundity of the Anglo-Saxon upper-classes. He pointed to the loss of Imperial might among the French, and feared that with their low birth-rate they may be doomed to resorting to “intermarriage with their darker colonial races, which must amount to race suicide” (p. 78). This dystopian future was used to highlight the danger to the Anglo-Saxon peoples, who on account of a

²²⁸ James McKeen Cattell (1860 – 1944), was a graduate student of Wilhelm Wundt at Leipzig and the first professor of psychology in America, at the University of Pennsylvania. He is credited as one of the pioneers of psychology who raised the nascent discipline to an empirical science, but is also notorious for his support of eugenics, mental testing, and as a prolific author, editor and publisher of scientific journals, including the premier American journal, *Science*.

dropping birth-rate (due mainly to delayed marriage and birth control), were in danger of being outcompeted by more prolific races. Echoing Madison Grant's (1916, 1918) racial call-to-arms in America, Macfie warned that this fall in fertility, "a symptom of decadence," if continued, meant "directly and indirectly the decline and fall of Anglo-Saxon greatness" was inevitable (p. 78).

Macfie saw this reduction in fertility as not only a danger to the power of the nation, but also a portentous sign "that the quality of the people is deteriorating genetically" (p. 79), despite his earlier repeated assertions to the contrary. Echoing A. M. Ludovici in *Lysistrata* (1925), Macfie was especially pessimistic about modern British women, who seemed to be undergoing a bodily degeneration that threatened prolific Anglo-Saxon motherhood and thus racial progress, if not race-suicide proper:

We find Englishwomen not only increasingly unwilling, but increasingly unable to suckle their offspring: we find that their breasts often remain undeveloped; we find that cases of difficult labour are growing commoner, and knowing as we do the close relationship between a woman's breasts and her reproductive system... between a woman's breasts and her emotional psychology... the part played by a woman's breasts in sexual attraction, we cannot help fearing that something is radically wrong. Moreover women's bodies are growing leaner, and bonier, and straighter in the line, and less feminine. (p. 79)

He also attacked modern women's fashions, makeup and career ambitions as taking away from the eugenic value of selection; although unlike Ludovici he did not blame feminism or Christianity. Macfie even noted with alarm that foreign observers had noticed this dysgenic trend, lamenting that "it is deplorable to find that English-women are held up in foreign papers as a warning" (p. 81). He also detected an incipient deterioration in English men, who were recently becoming more effeminate, less virile, and showing "an increasing tendency to sexual perversities," though he did not deign to specify these vices. But Macfie saw these instances of deterioration to be "transitory and superficial" and blamed the usual environmental culprits, many of which also appeared on Ludovici's racial-decadence list: the theatre, cinema, novels, poetry, dancing, decadent modern art and music, irreverence and sexual cynicism; rather than a firm genetic or Lamarckian causality. Even if this deterioration was not hereditary and was only a generational evil, Macfie feared it may "have far-reaching dysgenic effects" (p. 82). However, Macfie concluded this was largely a metropolitan problem, and argued that the bulk of the population of the industrial cities, towns and rural areas outside London were "not yet touched by decadence, and the Anglo-Saxon stock with its mixture of Nordic and Celtic blood is so stable and so good that there is no fear of any lasting deterioration;" and he explicitly disagreed with Major Leonard Darwin's (1850-1943) prophecy of race-suicide (p. 83), in a dogged defense of the resilience of high-quality germ-plasm from bad environmental influence.

After all this exploration of the possibilities of negative and positive eugenics, Macfie clarified his overall objection to organized eugenics taking a larger role in the direction of human progress, and expressed his approval for eugenics and other less-drastic selective measures, using Cattell (for eugenics) and Nietzsche (for vitalism) as foils to his own neovitalism:

To-day with the exception of the little measures of negative eugenics we have indicated, we are not in a position to interfere with the potentialities of the germ-plasm: the most we can do is to promote eugenic marriages so as to raise the means of the species to its highest possible point, and to improve the environment of men so that the genes at least will not suffer from bad nutritional conditions... To try to to-day consciously and deliberately to breed for special features would be absurd. "If," says Professor Cattell, "there were a central directing agency which had the power as well as the wisdom to control mating within the group something could undoubtedly be done slowly to elevate the general average of bodily vigour and innate power within the group. This could be done most rapidly by polygamy which would permit of a relatively rigid selection of sires... But the social consequences as Cattell points out would be monstrous. (p. 84, 85)

We are not competent to select for others: we are not competent to direct the mingling of the genes, and we do not believe...that sterilization is the best mode of selection... We cannot select [multiple genes or complex traits] scientifically; we cannot co-ordinate and integrate so many correlated factors. It can be done only two by two through the clairvoyance of sexual attraction which chooses a body for a soul, and a soul for a body—in "the will" as Nietzsche says "of two to create one, who is more than they who created him." (p. 85)

Macfie used the analogy of the impossibility of conscious control of all the muscles and nerves involved in walking to argue for the superior mechanism unconscious sexual selection, as it had evolved in the natural process of sexual attraction, "by some subconscious integral calculus" (p. 85). He even used Wagner's *Zarathustra* as an authority: "There is more wisdom in thy body than in thy best wisdom" (p. 86). Macfie claimed that the "best practical eugenics" would be to strip away all artificial considerations, "from titles and dollars, to rouge and powder," and to institute subsidies and other incentives that would allow any healthy man to marry the woman of his choice, and vice-versa. He affirmed that physical attraction, as it had developed over evolutionary history, was more eugenic than any artificial means, and would continue to preserve the best qualities and abilities of the race in the future "so long as no attempts are made to improve the breed by polygamy and ectopic gestation" (p. 86).

So beyond some negative eugenics measures for the "hopelessly unfit," we should leave the calculations to Cupid, and focus science and medicine to work on eugenic progress. Macfie argued that even where matrimonial selection failed to improve resistance to disease or other dread medical

afflictions, “science will find cures or prophylactics for all diseases, from measles and cold in the head to cancer and drunkenness” (p. 86). He even went so far as to predict the development of a “single vaccine or serum to render a man immune all his life to all germ diseases. It is almost certain that by means of endocrines and vitamins other diseases will be conquered if indeed they are not eradicated by sexual selection” (p. 87). Like many authors in the series, Macfie pointed to recent advances in endocrinology and nutritional science for controlling diabetes, goiter, and other ancient scourges through modern vitamin or mineral supplements. So, while Macfie was cautious about eugenic progress, his optimism for euthenic improvements and ‘natural’ selection was almost unbounded.

Macfie again referenced J. B. S. Haldane’s *Daedalus* (1923) to admit the possibility of radical genetic manipulation or human engineering, and of eugenic legislation to direct it, but he delayed its successful implementation to the “Metanthropoi of 5000 A.D.” (p. 89). He predicted that through further euthenic improvements and improved matrimonial selection, future humans “will probably all be centenarians” but dismissed the indefinite prolongation of life. Like others in the series who saw the coming millennium as an apropos target for long-range forecasts, he offers some optimistic prognostications:

All the hygienic and dietetic lessons we have learned in the previous centuries will doubtless be put to good use. The Metanthropoi even of 2000 A.D. will dress wisely, and eat and drink wisely, and exercise wisely; and it is possible that ways will be discovered to transform radiant energy into biotic vigour, and it is possible, though not likely, that new synthetic food will be discovered of more nutritional value than those at present in use. (p. 90)

If only Macfie had lived to see the diet, exercise and drug habits of millennials, he might have changed his opposition to organized eugenics, and abandoned his optimism for mankind’s ‘subconscious integral calculus.’ But in any case, with his overt support for the status quo in British marriage patterns, the rejection of compulsory sterilization, and his overwhelming faith in euthenic improvements by modern medicine, Macfie was one of the more prescient prophets in the series.

For the last time, as he had done in each previous chapter, Macfie then switched from germinal and general bodily evolution, back to his favourite topic for future human progress: the neopallium of the brain. He reasserted Galton’s original observation in *Hereditary Genius* (1869) that “mental and moral differences between men are ten times greater than their bodily differences” so that “the mind of a Newton or Tennyson is incomparably better than the mind of a moron, or even than the mind of the average man of to-day” (p. 91). He extended this critical mental difference to whole races of people, but did not explicitly rank or rate any race as superior or inferior, although since all his exemplars of eminence were Anglo-Saxons, one may be allowed to speculate his preference.

Macfie then wove a narrative of progressive mental and spiritual improvement, using various authorities to buttress his optimistic predictions for a saltation in human mental faculties, much like Ludovici's predicted a "Masculine Renaissance" in *Lysistrata* (1925). But unlike Ludovici's flirtation with rapid Lamarckian modification, Macfie remained true to his hereditarian worldview and neovitalism philosophy, relying on the "pregnant possibilities of every new combination of genes" and their subliminal selection through the natural attraction of healthy prospective mates:

In the complexity of the brain in a changing and progressive intellectual environment we have incalculable opportunities for change; and the Metanthropos of the future will live a richer, fuller life than the men to-day, partly because selection will have improved his brain and partly because previous generations of brains will have improved his brain's environment, giving it books, aeroplanes, music, wireless, means of travel, etc. (p. 93)

Though he declined to make any specific predictions for future mental abilities or faculties, unlike Ludovici in *Lysistrata*, Macfie did express a similar optimism for the enlightened, purified people of tomorrow forging their own golden destinies; but was more egalitarian in ascribing some leadership role to 'Future Woman;' once they have acquired a better integral calculator of fitness:

It is love—blind clairvoyant love—that will choose the combinations [of genes] that will make the brain, and with the brain the whole conscious being of Future Humanity. So far love has chiefly chosen through men, and men have been attracted by the physical...but more and more as the bodies of men and women get sufficiently selected the choice will be mutual and will depend on the conscious or subconscious recognition of intellectual and moral characters... The results will be revolutionary, even in the absence of further [mutational] evolution. (p. 94)

Even in his optimism, Macfie was still realistic enough to realize that mate selection would never be so powerful as to allow the "breeding of exact duplicates" or the "mass production of geniuses," but he did predict a time when we would be able to "breed almost numberless varieties of the highly moral, the highly intellectual, and... the Metanthropoi of the future will be divided into nations akin in mental and moral outlook" (p. 95). He admitted that to a certain extent nations were already divided by moral and mental ability, "the French, the English, the Japs, the Jews, the Hindus and other races are differentiated quite as much by mind as by body, but in the future this differentiation will "greatly increase," eventually leading to "intellectual and moral segregation" (p. 95). At the same time, he predicted increasing race-mixture through "ever-growing cosmopolitanism and internationalism" to produce a blended racial-type in terms of colour and features, with optimum beauty and efficiency rather than racial disharmony or degeneration.

Thus, rather than a class-based society or racially-segregated world, future humanity would form homogenous nations based on shared intellectual ability and moral outlook, so that “there will be nations of saints, poets, of scientists, of painters” (p. 96); though there was no mention of the future allocation of global real-estate, or even how these morally and intellectually segregated nations would function without a mix of abilities.

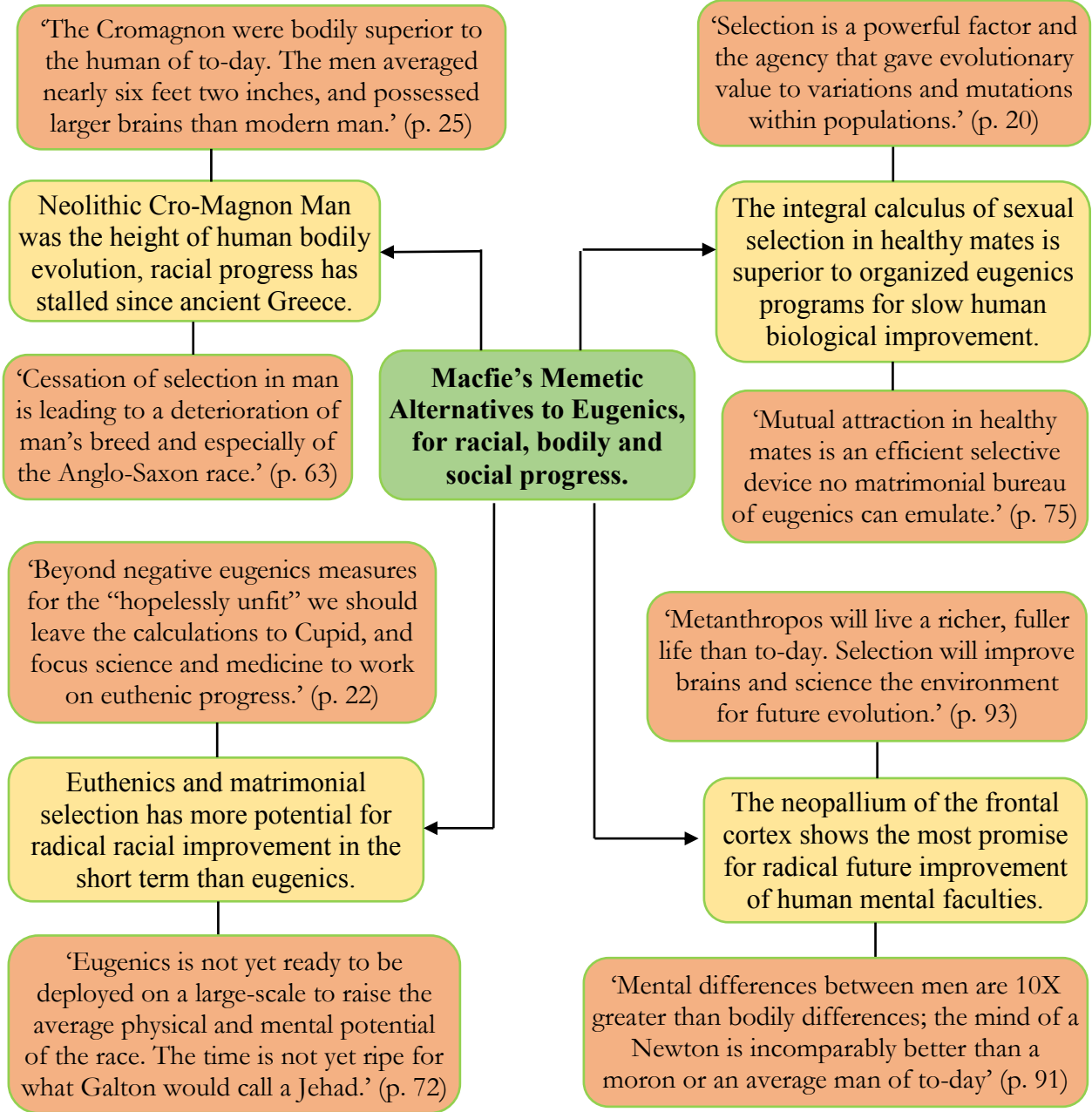
To conclude his ode to physical attraction and the power of sexual selection to accomplish what the secular religion of eugenics and the technocratic control of autocratic regimes had promised, Macfie foreshadowed the post-Maharishi Yogi song-book of Lennon and McCartney, avowing in a prosaic precursor and similarly idealistic prototype of “All You Need is Love” (1968) that:

Love is an emotion closely associated with beauty and religion, and love will select the lovely and the moral—indeed only by such selection is humanity likely to survive the instruments of slaughter now in the hands of blind politicians. In the words of Kant: “The cosmic evolution of Nature is continued in the historic development of humanity and completed in the moral perfection of the individual.” Love is the crown and consummation of all things—the great purpose that throbbed in the firemist and worked through amoeba and monkey up to man, and so long as love exists, and love selects, there is hope for the future of Humanity. (p. 96)

Whether one finds Macfie’s ‘pre-new-age’ neovitalism romantic or hopelessly naïve, one could make the case that with the post-modern turn, and the rise of the civil-rights and associated social movements, as exemplified by the Beatles and the counter-cultural revolution of the 1960s, Macfie was a prophet of some acuity in predicting the selective ‘integral calculus’ of the ‘Pepsi generation.’ Regardless of one’s assessment, Macfie’s blend of hereditarian science and conditional support for eugenics, along with his euthenic enthusiasm and neo-Vitalist philosophy, was a unique mélange among his series peers, and thus worthy of consideration and separate coverage in this review.

As mentioned previously, it was not a series best seller, and other than the novelty of neovitalism, it mined many of the same memes and paradigms as previous eugenically active volumes, as highlighted by the frequent allusions to these past titles. Because of its blending and profusion of diverse worldviews and operational paradigms, it would take a huge banner sized poster to express anything close to a complete meme-map for *Metanthropos*. Thus, the partial meme-map in Figure A3-33 on the next page is focused on Macfie’s more novel memes about the wonders of matrimonial selection, and his neovitalism paradigm as an alternative to eugenics for renewed human progressive evolution. It thus largely ignores the common pro-eugenic elements and defense of eugenics for the obviously unfit, which was common to so many of its series peers cited in this review (with the almost unique exception of Dora Russell’s *Hypatia*, 1925).

Macfie’s Euthenics and neo-Vitalism Memeplex-Mélange in *Metanthropos*



Color Code:

Meme clusters

Mememes or small clusters

(Lime-green borders signify a blend of hereditarian and environmentalist worldviews and Macfie’s own brand of neo-Vitalism.)

Figure A3-33: A partial meme-map for Professor Macfie’s curious blend of euthenics and neovitalism as memetic rivals or social-reform alternatives to eugenics, especially compulsory negative eugenics, which he only supported for the most unfit among the poor urbanites of Britain’s metropolitan slums. It is difficult to definitively place *Metanthropos* on the hereditarian-environmentalist spectrum or axis, except as something of an agnostic and eclectic, like H. S. Jennings in *Prometheus* (1926).

Making Science Popular for a Progressive Public

With the hindsight of almost a century of elapsed history, and with the benefit of modern genetics, medical research and years of science and technology studies, it would be easy for a skeptical scholar to critique the scientific fallacies, rhetorical inconsistencies, and logical lapses of Macfie's *Metanthropos*. But that is not the main purpose for my review of this work. Rather, the main value is its role as an alternative exemplar of popular education for eugenics and neo-vitalism, and especially as a counterpoint to the more ardent eugenic advocacy in other volumes in the series.

Although *Metanthropos* never sold well-enough to go beyond the first printing, it did make the cut to be included in Routledge's republished *To-day and To-morrow* series (2009), in the Science and Medicine volume, along with F. G. Crookshank's *The Mongol in our Midst*, H. S. Jennings' *Prometheus*, and two other volumes from the original series. Macfie was also briefly profiled in Peter J. Bowler's discussion of science popularizers in *Science for All: The Popularization of Science in Early Twentieth-Century Britain* (2009). Bowler traced the various book series, magazines and newspaper serials from the end of Victorian-era to the lean years of the Great Depression, including Kegan Paul's *To-day and To-morrow* series. Unlike the Victorian-era's cultural climate of unbridled faith in the social order and a unchecked appetite for progress through science and technology, limited only by spending power, the Interwar period offered increasing challenges to popular science for author's, publishers and readers.

One challenge for publishers was to attract the biggest names in science to write for a popular audience. Once science had been more fully 'professionalized' after the turn of the 20th Century, it increasingly became a liability for ambitious scientists at the leading edge of their field to divert their energies and time away from their research career and academic writing. Bowler (2009) noted that numerous British scientists, including J. B. S. Haldane, Julian Huxley, and Lancelot Hogben became increasingly reticent to offer their expertise; in the belief that writing popular books or articles could impair their chances for further promotion to the highest levels of scientific prestige, especially election to the Royal Society, or acquiring chairs or professorships at elite universities and institutes. This caution was mostly aimed at those scientists who allowed their work to be sensationalized in flashy newspaper stories or pulp serials, but even a poorly-received popular 'edutainment' book could lead to one's rivals "ignoring all the rest of a man's work and glibly labelling him a mere popularizer" (Bowler, 2009, p. 7). This careerism led to an increasing reliance by publishers on "minor figures teaching at provincial universities whose books now litter the shelves of charity bookshops" (Bowler, 2009, p. 8); or those, like R. C. Macfie, who had already retired from active careers in medical or scientific research in order to write for a popular audience. As a well-established popular author, Macfie did not have to worry about loss of prestige or the whispers of jealous colleagues.

Bowler (2009) also noted that during the interwar period there was a growing trend, especially among the left-wing (as best personified by a latter-day J. B. S. Haldane), to criticize Western science and technocracy for its role in warfare, empire, and industrial capitalism. As an anachronistic advocate of neo-Vitalism and a critic of compulsory eugenics, Macfie also tapped into this Zeitgeist. Publishers like Kegan Paul were anxious to capitalize on this growing controversy and debates about whether modern science and technology engendered true progress or hailed a descent into dystopia. The same case could be made for Ludovici's *Lysistrata* (1925), but from the reactionary, aristocratic far-right. This critical trend became more pronounced during the 1930s, and again in the aftermath of the Atomic-age and the pernicious threat to Western civilization posed by the Cold War.

Thus Macfie, like his fellow popularizer, Aberdeen biology professor J. Arthur Thompson (oft cited in *Metanthropos*), formed a temporal bridge between the amateur scientists who enthusiastically popularized science in the late 1900s and the professional science writers who formed a new niche in the Interwar period; a niche that greatly expanded after World War II (Bowler, 2009, p. 7). More importantly for this study, the presence of popular science authors like Macfie, evangelizing for memetic alternatives like eugenics and 'the integral calculus of Cupid' and dissenting against compulsory negative eugenics programs or legislation, was one of the key factors that differentiated the tame skittishness of the British eugenics' movement from its more ardent and aggressive colony in America that took hereditarianism (biological determinism), directed evolutionary progress and the theory of Anglo-Saxon Protestant (W.A.S.P.) superiority to a whole new level, in a markedly different memetic environment.

The Racial Anthropology of Arthur Keith's *Ethnos, or the Problem of Race* in the *To-day and To-morrow* Series

Human evolution and the origin of races was a recurring theme in a number of volumes of the *To-day and To-morrow* series, from the eugenically-optimistic series inauguration by J. B. S. Haldane (*Daedalus*, 1923), through to the prophecy of doom by racial degeneration in F. C. S. Schiller's *Tantalus* (1924), and the racially-loaded anthropology of F. G. Crookshank's *The Mongol in our Midst* (1924). These early titles all shared a strong, strict hereditarian worldview. An initial environmentalist thrust in the series came with H. S. Jennings' *Prometheus, or Biology and the Advancement of Man* (1925), the first series title by an American. This was continued by the explicitly Lamarckian *Galatea, or the Future of Darwinism* (1927), by Dr. Walter Russell Brain. These volumes were in turn succeeded by Scottish doctor, poet, and science popularizer, Dr. R. C. Macfie's *Metanthropos, or the Body of the Future* (1928), as an ode to neo-Vitalism. All these series authors (and several others) cited Sir Arthur Keith (1866-1955); the reigning dean of British anthropology, as an eminent authority on the subjects of anatomy, anthropology, evolution and race.²²⁹ In 1931, Keith was rewarded with his own volume, first advertised as *Ethnos; or the Problem of Race, considered from an Anthropological Standpoint*. *Ethnos* was among the last half-dozen titles released by Kegan Paul before the series was discontinued, as the Great Depression began to erode people's incomes, or they switched to cheaper, more sensational fare instead (Bowler, 2009). See title-page and promotional review for *Ethnos* in Figure A3-34, on the next page.

At the time *Ethnos* was written, Sir Arthur Keith was one of the most prestigious authors in the series, although others later eclipsed him in honorifics (Bertrand Russell became an Earl, W. R. Brain a Baron), or in scientific prizes, e.g. J. B. S. Haldane). Keith's professional reputation took a hit when the Piltdown skull and jaw were later labelled as a hoax; but no other living scientist was as often cited or quoted in the series. Keith was an alumnus of Aberdeen University (like *Metanthropos* author R. C. MacFie), earning degrees in medicine and anatomy between 1889-1894, and he became Rector of his *alma mater* in late 1930. He was elected to the Royal College of Surgeons in 1908, made a Fellow of the Royal Society in 1913 and knighted by the King in 1921.

²²⁹ Although British anthropologists and other academics were hesitant to impugn Keith's reputation over this affair while he was alive, later scholars were less reticent. A more recent expose (Tobias, *Piltdown: An Appraisal of the Case against Sir Arthur Keith*, 1992) actually suggested Keith was centrally involved in the hoax. More recent work has called this analysis into question, and the real truth may never be known. It is worth noting, however that some American eugenicists (like H. F. Osborn) used the Piltdown skull as evidence of racial degeneration among the early inhabitants of Britain, before Nordic migrations restored their eugenic lustre with infusions of Anglo-Saxon blood.

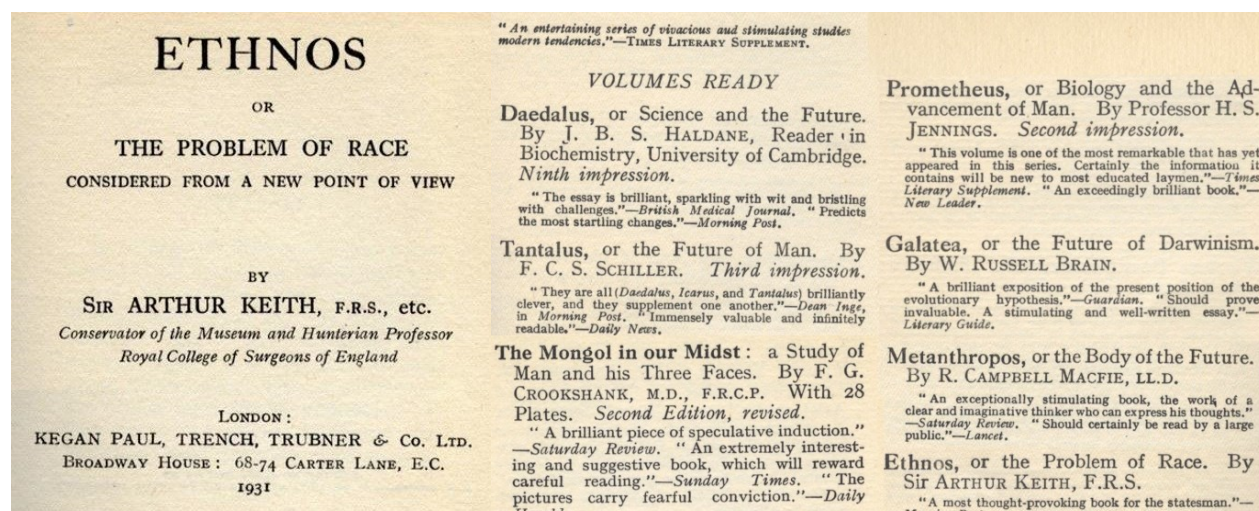


Figure A3-34: *Ethnos* title-page showing a few of Keith's credentials; and *To-day and To-morrow* series promotional reviews for it and its various predecessors. Human biology, evolution and the future of science and civilization were popular topics that were repeatedly mined as the series progressed, from a multitude of philosophical viewpoints and worldview orientations.

Ethnos was unique in the series, in not being divided into conventional chapters with separate titles, but rather it consisted of a short preface, and a single 86-page essay, broken into short segments of one to three pages with an italicized, thematic subheading for each section, some of which I have tried to preserve in this review. Unlike some of the early anthropological or racially-themed volumes in the series (such as Crookshank's *The Mongol in our Midst*, 1924), there are no pictures or diagrams, as the publishers tried to keep costs to a bare minimum to maintain a competitive subscription rate in an increasingly tough market. Other than a passing reference to Bertrand Russell, Keith did not deign to cite any other authors in the series, even those who directly touched on many of the same issues or controversies he was dealing with. And unlike many of the preceding volumes, eugenics hardly figured as a topic, and it totally lacked any reference to genetics. Instead, Keith largely stuck to the giants of mid-19th Century British anthropology: Charles Darwin and especially T. H. Huxley.

One could reasonably make the case that *Ethnos* was essentially an updating of T. H. Huxley's (1825-1895) racial theories, largely bypassing the strong Nordacist bent of Continental anthropology and American eugenics that rose to prominence in the roughly sixty-year interim. Racial anthropology sought to 'scientifically' divide Europeans, as well as non-Caucasians, into separate races and subdivisions and rated their racial value. Thus, *Ethnos* could also qualify as an attempt at 'reform anthropology' to differentiate the interwar British discipline from its American and German cousins. In this, Keith's timing was propitious in avoiding the later criticism of American Nordicism and racialized eugenics, and especially its ideological connections to Nazi race-hygiene.

Countering the “*Evils which result from the Division of Mankind into Races*”

In this spirit of racial reform, Keith began by explaining how “the differentiation of humanity into races is a source of continuous trouble to mankind” (p. 7). He lamented the constant barrage of newspaper stories that “disturb the peace” with reportage on racial frictions, and cited exemplars in Palestine, South Africa, America, and Australia. He asserted these racial distinctions are making the task of nation and empire-building by statesmen much more difficult than it would be if mankind were a superficially homogenous mass, with undifferentiated worldviews and societal attitudes. His rhetorical question to conclude this introductory section sets the stage for the rest of the book: “Why then has Nature introduced this ever-disturbing factor into human life—the differentiation of Mankind into Races?” (p. 9).

Keith next argues that “Man’s advancement has been organized on a Racial Basis,” beginning with the “ancient philosophers of the East” as chronicled in Genesis, with the oft-cited separation of mankind after the sons of Noah (Ham, Japeth and Shem), as employed in Crookshank (1924), even in the absence of any explanatory mechanism. But Keith instructs readers that human races are much more ancient than even Genesis, and thus any discussion must accord to geologic history, not written social history or theology. In fact, Keith make the case that mankind is slowly merging into one polyglot, from the many pure Old World races of prehistorical times. Thus, the dozen or so distinct races of his time were the result of slow blending from more than a hundred divisions in great antiquity. Rather than a genetic explanation, which is entirely absent from *Ethnos*, Keith posits a progressive mechanism: “The explanation which I offer is this: It was, and still is, Nature’s way of evolving higher types; for success there must be rivalry and competition” (p. 11). Keith immediately clarifies that his use of the term “higher” is strictly scientific, implying better adaptation to prevailing conditions, so that “they need not have been larger brained.” This evolutionary change serves to give man greater advantages over his environment; allowing him to become master of his domain, rather than “a slave of circumstances” (p. 11). These experiments of Nature rendered a dozen survivors from the large medley of types emerging from the Pleistocene period of geologic time to take their starting positions at the dawn of written history.

“The Racial Types of To-day” as surviving “Pawn[s] on the Chessboard of History”

Having clarified the ancient origins and evolutionary progression of human races, Keith turned to the major divisions of man according to conventional anthropological classification schemes. He briefly detailed the evolutionary centers of the four main Old World races of man: the ‘Asian Mongol’ north of the Himalayas, the ‘Brown type’ to the south and on the Indian sub-continent, the ‘Black type’ of sub-Saharan Africa, and the ‘White type’ of the Caucasus and Europe; of which the latter, unlike the others, has “no sharp line of division to separate them” but only a slow gradient merging “the darker races [that] still prevail in the South and the fairer races in the North” (p. 13).

Keith risks breaking the “thread of my argument” to take a short tangent to “explain to my reader that my aim... is to bring a knowledge gained from the study of prehistoric man to bear on the racial problems of to-day” (p. 14). He abridges a lengthy and complicated anthropological history into two basic chapters. The first, extended from the undated advent of anatomically modern humans from amongst their more simian ancestors to the close of the last ice-age; a long period in which man’s evolution was solely effected by environment, with no conscious efforts on his part. The Agricultural Revolution, beginning about 10,000 BCE, slowly changed man from a completely hapless pawn to at least a semi-aware selector of alternate destinies, but still without a clear vision of his ultimate fate. The winners of this new evolutionary struggle triumphed according to their ability to adapt to “the economic necessities of modern civilization,” whilst the evolutionary losers disappeared if reason could not overcome the “wild nature [that] was strong within them” (p. 15). In this later age, race production ended, “sacrificed for the accumulation of wealth,” as even in the earliest empires, the laws of supply and demand dictated that the cheapest labour would be sought, in the cheapest market, “no matter what the race might be.” Thus, in both of these long, early chapters of our biological history, humanity “was but grist in the mill of evolution” (p. 16). Keith closed this section with his first overt appeal to eugenics as a new phase in history in which mankind might put his hand on the rudder of his own evolution:

If Eugenicists have their way, and ultimately I have no doubt they will obtain the ear of statesmen, then a new phase—a conscious phase—in the evolution of mankind will be initiated. If we find that the way we are living is leading us straight to physical and mental bankruptcy then we can no longer afford to be mere pawns on the chessboard of Evolution; we must somehow take a hand in the game. If Eugenicists have their way, human history will enter on a new or Eugenic phase of Evolution. (p. 16)

Geological-Environmental versus Psychological-Social Factors in Racial Evolution

After reminding readers that his essay is written “as a student of evolution,” who was concerned that “mankind has reached a critical point its history” (p. 16), Keith returned to his main argument to delve into the geological-environmental and psychological-social factors that first caused mankind to differentiate into races, or those that eventually allowed their melding into intermediate types.

Keith began his survey of evolutionary race-production with a logical axiom: that “if early men and women had been world-wandering nomads, shifting here and there as the spirit moved them, mixing their blood in all lands with that of all of the races encountered, no local differentiation of races and racial types could have come about; in every continent there would have been the same monotony of humanity brought about by indiscriminate hybridization” (p. 17). Thus, the ancient origin of distinct races must have involved long-term separation, which Keith asserts came mostly from intrinsic factors, not extrinsic. The first of these was patriotism, at the level of family groups, clans or tribes, an evolutionary extension of the “herd instinct” of social animals. He revealed that our modern “susceptibility to public opinion” (p. 18) is an outgrowth of the evolution of races. The instinctive preference of social animals for their own kind was manifested in man by the peculiar colouration of their skin, their speech and distinct customs. “Racial uniforms” (physical and cultural) were “Nature’s way of safeguarding her experiment,” and accepting that these early distinctions and reactionary instincts have operated from the dawn of man is needed for any “reasonable explanation of how the races of mankind have been evolved” (p. 19).

Fearing his previous argument was too “condensed” to be convincing, Keith further explained how patriotism was a causative factor in race building, and an “essential part of Nature’s machinery for the improvement of man.” Here he lauded H. G. Wells as an “acute observer and deep thinker” who realized that if we were to secure a “universal peace” a necessary precondition was to “eradicate the spirit of patriotism root and branch,” which included the old evolutionary animal preference for same-kind that is now exhibited as “race prejudice” (p. 20). According to Wells, this eradication must be done in childhood, in order to accomplish the obliteration of all racial barriers, thus allowing for a complete fusion of all existing races into one composite type. Keith promised to return to Wells’ tentative solution to racial tensions and wars, and clarified that he “merely cites Mr. Wells as a valuable witness” for his contention that patriotism or race-prejudice operate to isolate man into races, but hints that man will have to pay the piper “for peace at such a price” (p. 20).

Moving forward in time to the end of the ice-age, humanity experienced a major shift in group livelihood and societal organization, a shift “which now threatens Nature’s scheme of human evolution” (p. 21). This was the agricultural revolution, supplanting dispersed clans of nomadic hunter-gatherers with settled villages and simple farming of wild plants, which became selected and domesticated simultaneously with their sowers and reapers. Keith gave the nod to the “white races” in South Western Asia, citing archeological digs in modern Palestine as the oldest evidence of primitive farming tools. Keith explained how a series of almost simultaneous saltations (evolutionary leaps) changed the life outlook and evolutionary path of man in a relative blink of geological time: organized agriculture led to the creation of the first cities and city-states, and simultaneously caused the disintegration of instinctive racial antipathies, as early tribal-man became modern economic-man:

With the rise of cities came commerce. In this way the old tribal territories—the cradles of evolution—were broken down. Then came the most momentous change of all—a change in man’s outlook on the world. A primitive tribal people, in considering any change in policy, asks this question first: Will the proposed change enhance the prestige, unity, and freedom of our tribe? Whether the proposed change be good for business or not, is a matter of secondary importance; the welfare of the tribe always comes first. With the rise of the city state the primary question became: Will the proposed change be good for business? If it were, it was adopted. The outlook became economic. Tribal boundaries were found by such states to be bad for trade; they should therefore be broken down. (p. 22)

The next stage of cultural development, Empire building, accelerated these changes, mixing ever greater numbers of people into broader racial *mélanges*. Engulfed tribal groups (if they were to survive) went into a racial melting pot, producing a human alloy with blended customs and values. Now, the kings and emperors of the ancient world were unaware they were tampering with the biological evolution of these conquered peoples; instead justifying their actions as bringing “the blessings of civilization to distant benighted peoples.” But Keith asserted that the economic makeover of the world “became the undoing of its evolutionary machinery” (p. 23). He denied any sentimental angst over the destruction “of these ancient tribal cradles,” since the “man of science has no business to allow sentiment to come between him and truth.” He merely re-emphasized that the arrival of agriculture and permanent settlements brought a fundamental change in man’s ideals, one of economic exploitation and accumulation of wealth, rather than race-breeding or biological selection.

Keith then embarked on a racial thought-experiment, set in ancient Britain, in order to “dissipate any misconception as to my own attitude toward race feeling or prejudice.” (p. 24). In this scenario, he first imagined himself living in a tribal society in South-eastern England, just before the arrival of the first Roman legions in 49 A.D. He speculated that he would have fought tenaciously against the

brutal Roman conquest, “killing as many of them as I could have before they killed me” (p. 24). But this race-pride would have been bred-out of the local population if he was living in the same locale in the third century, or at least been suppressed into a dormant state, so that:

I would have been a tame sheep by that time and would not have cared, I suspect, in which flock I was driven. I would have lost the pride inherent in tribalism. Now I know that such a result—the utter domestication of every man, woman and child in the world—is the aim which some of our philosophers advise us to strive for.²³⁰ For my part I think the races which retain their ancient tribal instincts, and resolve to modify them so as to suit modern conditions, are the races which are best... for the ultimate advancement of humanity. (p. 25, 26)

Nation and Race, Nationalism and Race-building

Just when Keith was starting to sound like Madison Grant in his ‘racial-history of Europe:’ *The Passing of the Great Race* (1916), Keith made the bold claim: “*Nation and Race are the same thing*” (p. 26). Here, he uncharacteristically countered T. H. Huxley’s assertion that there was no relation between nation and race (as echoed by Grant); a view that Keith admitted most anthropologists still held. For Huxley, Grant, *et al*, modern nations were artificial creations; while races were zoological divisions based on actual, visible physiological differences. Huxley’s zoological classification scheme parsed the pre-Roman British peoples into three races (unnamed), compounded in different proportions to yield a slightly different blend in each of the four nations of Great Britain. While Keith conceded that Huxley was correct in this assertion for the distant past, he argued it was based on the error of assuming that different races when blended become “deracialized” and remain that way, becoming “no longer races but merely mongrel breeds” (p. 27).

Rather, Keith argued race was more permanent, with “deeply implanted natural instincts,” which over time differentiated the blended population from its neighbors, forging an incipient race, like a speciation event. “Politicians have been wiser than anthropologists; variation in the shape of skulls has no terror for them; they recognize that the essential potency of race lies not in outward characters, but in the manifestation of these inward feeling known as ‘national spirit’... nation and race are but different degrees of the same evolutionary environment.” (p. 28).

Keith further explained the unconscious process of race-building in young nations, using the analogy of a sparrow building a nest from the first piece of straw without any conception of the final result. Not only was this unconscious process operating from the dawn of humanity in the earliest

²³⁰ A nameless reference to Bertrand Russell’s appeal in *Icarus* (1924) for a universal one-world government that would actively suppress patriotism and racial schisms, until all inter-group rivalries had been eliminated.

racess, he also described the new nations of central-eastern Europe created from the ruins of defeated empires (Germany, Russia and Austria-Hungary) in the World War, as being living laboratories of modern race-building. He first examined the race-building process in Finland, newly set free from the Czar's empire, praising the Finns as a "fair and fine people... first-cousins to the Swedes" (p. 30). Rather than joining their Scandinavian cousins in an earlier historical confederation, the Finns embarked on a bold program of renaming long-standing landmarks, towns, and institutions with Finnish names. This isolation, although bad for trade, "is absolutely necessary if there is to be race-building" (p. 31). The "touchiness" of young nations is another manifestation of this burgeoning race-feeling, as was the initial sacrifice of economic gain for enhanced status and independence.

Turning his observational gaze closer to home, Keith next examined the "Irish Free State" newly liberated from the British Empire in 1922, to validate his previous assertions regarding the Finns. The Irish made similar sacrifices of easy trade and quick economic prosperity for the sort of isolation that would benefit faster race-building, as they reverted to the same tribal mentality predominant in the pre-economic phase of human prehistory: "For this purpose Ireland had to be ringed off as completely as possible—for isolation is just as necessary for the raising of a new race of men as for a new breed of cattle" (p. 32). But for the Irish, the problem was compounded by the virtual death of the native Erse language, replaced by the English of their Imperial masters. Keith praised the new government for its attempt to resurrect Erse and make it the official national language, despite the economic pain and confusion that would result in many years of struggle at great financial cost for no immediate gain. But in time, this isolation and economic pain would have a racial pay-off that was more valuable: "No Irishman will pretend that any material gain has resulted; material motives do not appeal to him when Nationality stands as issue...the ideal of a Free Ireland set at full liberty to work out her own destiny among the rocks and shallows of the Racial Seas of the World" (p. 33).

Keith apologized for his desultory manner of dealing with race-craft, in laying out a few diverse examples, and hoped his readers would not think these exemplars are "willful perversions of human Nature, but have a deep and permanent significance" (p. 33). He clarified that as an anthropologist he was not advocating for particular policies or futures, but instead assured readers that his observations were based on long-standing experience in many countries. Although he was "at heart still a 'Scots wha Hae'" Scotsman, he testified that when given the opportunity to help lead a Scottish independence movement, he declined; in the interests of preserving his scientific objectivity and apolitical neutrality. He predicted that if Scotland ever decided to embark on a course of race building, she would not be dissuaded by financial cost or economic pain; a prediction almost born-out in the

contentious Scottish independence vote of 2014. Keith even compared the process of race-building in a strong self-reliant people, once it had begun in earnest, to a great migration of lemmings.

Next, Keith considered “the Spirit of Wales.” In keeping with his prior discussion of Ireland and Scotland, he again explicitly declined to identify the three races that compose their populations. But he took the trouble to reassure his readers that “this omission should not mislead them as to the value I attach to anthropological measurements” (p. 35) including the cranial measurements and cephalic-index surveys conducted by his friend, Professor H. J. Fleure (*Races of England and Wales*, 1923).²³¹ Keith offered high praise for the survey’s scientific value, but unlike Fleure, he took pains to impress upon readers that regardless of the original races that settled Wales, Scotland, or Ireland, “that mixture is being welded into a new race under the working of a common national spirit” (p. 36). Once again, Keith lauded the attempts to preserve the language, customs and traditions of Wales from being swamped by her more prolific English cousins; secure in the belief that Welsh reason would resist any measure that was “not best for Wales, best for the Empire and best for the world” (p. 37).

England received the final treatment of the British nations. Although Keith reported that he has heard from many locals that swear they are devoid of “race instincts,” he used his experience and anthropological research to boldly state: “in no people are race-instincts, race prejudices, [and] race determination, so strongly entrenched as in the hearts of the natives of England” (p. 38). He was also confident his “French colleagues would agree with this verdict,” but also pronounced that in no other people are these race-instincts “so disciplined and controlled by reason” (p. 38). In the English, though difficult to arouse, these racial effects were “truly cyclonic.” Fortunately for Englishmen, these feelings, rather than leading to conflict and bloodshed, were given a healthy outlet through sport, with the broad exercise of sportsmanship acting as “the safety valve of his spirit of race” (p. 39).

The last nation to go under Keith’s anthropological lens was France. And here, we have the first mention of the component European races that were omitted from his discussion of the British Isles. He presented the notion that the modern French nation was composed of distinct races was a universally accepted fact: “types so extreme as the fair Norseman and the dark bullet-headed Alpine man” (p. 39). Despite a strong national spirit, which he rated as the most vigorous in the world, Keith argued that a real physical fusion of the component French races had only been effected “to a very limited degree.” In particular, he pointed to the descendants of the Bretons (a branch of the Alpine race) in Brittany, as resisting assimilation to the larger mass; but insisted that it was the “spirit which counts when such claims are considered not the head index” (p. 40).

²³¹ Fleure returned the compliment with a positive review of *Ethnos* in the *Eugenics Review*; see end of this review.

“Huxley’s Conception of Race”

After this preliminary ethnological survey of Britain and various nations of Europe, Keith presented T. H. Huxley’s racial classification system for the first time.²³² Keith used Huxley’s 1870 lecture at St. George’s Hall to an esteemed audience on “The Forefathers and Forerunners of the English People” (p. 41). Huxley had been studying racial “problems with the utmost vigour for over a decade,” and had published *Evidence as to Man’s Place in Nature* in 1863, but abandoned this line of research after Darwin’s *The Descent of Man* was published in 1871. Keith also reminded readers that Huxley’s opinions were “formulated at a time when the full consequences of Darwin’s teaching were not fully realized” (p. 41). The inspiration for Huxley’s speech was the then current political and social upheaval in Ireland, including calls for separation based on racial differences.

Huxley concluded that there was no scientific basis for separation, as the racial differences between the four nations of Britain “was only one of proportion” of the degree of blending between the original races that settled the British Isles and he pronounced “the difference between Anglo-Saxons [Huxley’s *Xanthrochoi*, or fair element] and the Celts [Huxley’s *Melanochoi*, or dark element] are a mere sham and delusion” (p. 42). Keith revealed that Huxley “approached the problem of human races with the eye of a zoologist; he applied to men and women the methods which guided him in the case of dogs and pheasants” (p. 44). In Huxley’s conception of race, men and women “must be so marked in feature of body that each and all of them can be distinguished at a glance when seen in a composite crowd” (p. 44). Using this methodology, Huxley only found evidence of two easily recognizable groups: “the Melanochoi—the Iberian or Mediterranean race, and the Xanthochroi, or as we would now say, the Nordic race” (p. 45). For Huxley, much like Madison Grant in America, “nationality... had no place in in any zoological system” and he described a nation as “a congeries of people held together by territory, speech, politics and tradition and could not, on scientific grounds, claim the status of a race” (p. 45). Keith then immediately asks, rhetorically: “Was Huxley right?”

²³² In the interim between Huxley’s racial theorizing and Keith’s *Ethnos*, there was a veritable plethora of physical anthropology and ethnology surveys across Europe and in America, including Madison Grant’s almost simultaneous *The Conquest of a Continent* (1933). Two of the more extensive and lavishly illustrated volumes that would have been studied by Keith in his formative years as an anthropologist are John Beddoe’s *The Races of Britain: a Contribution to the Anthropology of Western Europe* (1885), and American W.Z. Ripley’s *The Races of Europe* (1899). Both are very Nordacist in tone and relied heavily on cranial measurements or cephalic-index comparisons to prove Nordic superiority. Madison Grant (1916, 1933) takes all this for granted, oft-citing both works. He narrated an American WASP tale of race-building over generations, largely isolated from inter-racial blending (at least in the North). This isolation was enforced by fervent race-prejudice between the so-called ‘native Americans’ (the founding Anglo-Saxon Protestants who immigrated during Dutch or English Colonial times), and the surviving indigenous ‘Indians.’ This *Nativism* was repeated during the influx of many millions of non-Nordic huddled masses from Southern and Eastern Europe after ~1830. One could argue Trump has re-ignited this *Nativist* ‘race-prejudice’ in the name of ‘White Nationalism’ (aka the ‘Alt-Right’ movement), but now aimed at different primary targets.

Keith dithered for a while in considering the question, and before answering took a detour to consider his own “*Evolutionary Conception of Race*” that he presented largely as a reinterpretation of Huxley’s groundbreaking research:

The conception of race I am to place before you is more elastic, more evolutionary than that formulated by Huxley in 1871. Let us apply this newer conception to the interpretation of the continental populations of the world. For this purpose we shall have to encompass the earth and note the number and distribution of its races—or “persistent modification” into which mankind has become divided. (p. 47)

Keith pronounced Huxley’s ethnological racial survey, begun in 1862, as having “never been surpassed in clearness and accuracy” and he quoted Huxley’s parsing of the globe into four zones, divided by two lines. One line stretches from “the Gold Coast in Africa to the Steppes of Tartary” and the other “crossing the globe from Britain to Australia,” creating four “Ethnological antipodes” (p. 48, 49). As part of this research, revolutionary for its time, Huxley had “devised a new and precise system of cranial measurement for the detection of racial likenesses and affinities” and Keith lamented that Huxley’s system “has never been given a rightful trial.” After three years of careful skull measurements and painstaking research, Huxley published his conclusions as “Methods and Results in Ethnology” in 1865, dividing humanity into eleven races, or “easily distinguished persistent modifications of mankind” (p. 50). Keith summarized Huxley’s list of “primary divisions” in this way:

(1) Australian, (2) Tasmanian, (3) Negrito—for which we may substitute the term Pacific Negroids” as Negrito has come to have a significance Huxley had not in mind, (4) Amphinesian—a maritime people occupying the islands of the Pacific, Malay Archipeligo and part of Madagascar, (5) Native peoples of America, extending from Cape Horn to Labrador, (6) The Eskimo, (7) the Mongolian stock—stretching from Thibet to Japan, and from Tonquin to Lapland—a vast assemblage, (8) the Negro, (9) the Bushman. Finally came the peoples who occupy western Asia and the whole continent of Europe; these he boldly divided into— (10) Xanthochroi or the fair stock in the northern zone, and (11) the dark or Melanochroi of the southern or Mediterranean zone. The peoples of Southern India were a source of perplexity to him, but finally he assigned them to his Australian division. (p. 50, 51)

Next, he used Huxley’s conception of race as a scientific test for parsing mankind into these eleven primary races. He conducted another thought experiment where a “competent ethnologist” viewed a hundred nude individuals from each race mixed together in a large composite crowd, “should be able to assign each individual to his or her proper race and place in the world” (p. 52).²³³

²³³ In this selective task, Keith foreshadowed the racial-anthropological indoctrination and training provided to Nazi medical personnel and SS officials in the extermination camps and ghettos. This systematic racial sifting was preceded by cruder ethnic-cleansing ‘operations’ in Poland and Russia conducted by the SS-*Einsatzgruppen* or other official gents of Hitler’s racial crusade to purge the conquered lands of *Untermenschen*, cleaning-up behind the panzers and infantry of Operation Barbarossa: the drive for *Lebensraum* in the East and utter extermination of Jewish Bolshevism.

Highlighting the difficulties faced in the complex, but often arbitrary task of all ‘splitters versus lumpers’ from Linnaeus through his own time, Keith revealed that Huxley later reduced the number of primary races from his earlier eleven to only four by 1870. As president of the British Ethnological Society, Huxley reduced his divisions to: “the Xanthochroic or fair type; the Mongoloid, or yellow type, the Negroid or black type, and the Australoid or brown type,” returning to the four “ethnological antipodes” or “primary centres of racial discrimination” he began with in 1862 (p. 54). Keith explained Huxley’s ongoing amendments as primarily a failure of Huxley’s cranial measurement system to provide a reliable racial resolution, forcing him to go back to a “primary discrimination” system based on “surface traits—colour of skin and texture of hair” (p. 54). Echoing his own extensive empirical ethnological research, Keith added another promising qualitative method, that of “the significant traits of the face—which are so hard to measure but which are so apparent to all” (p. 54).

“The Existence of Intermediate Types” and the Machinery of Racial Evolution

Continuing his review of Huxley’s racial research, Keith turned to the problem of the blurred gradient between the four ‘pure’ races that Huxley had settled-on in his later research. He related Huxley’s attempts to understand and explain this gradual change, rather than the abrupt transitions that Huxley had expected. Keith revealed that Huxley and subsequent anthropologists were “drawn to hybridity as an explanation of intermediate types” and this postulated mechanism was responsible Huxley dropping his Melanochroi as a separate race. He pointed to the increasing evidence supporting the theory of intermediate races as being “produced by degrees of crossing” (p. 57). One might reasonably expect the discussion to include a discussion of genes, unit characters, or chromosomes; but this section (and all of *Ethnos*) was devoid of any reference to genetics or Mendelism of any sort.

Instead, in discussing the *Machinery of Racial Evolution*, or later sections detailing *Racial Segregation* and *Racial Hybridization*, Keith turned to his own “Hormone Theory” for the evolution of human races, and offered a footnote (p. 58) listing two of his prior journal articles on the subject, in *Nature* (1919) and the *John’s Hopkins Hospital Bulletin* (1922). He noted the recent discovery of the endocrine glands, or the “glands of internal secretion” that figured prominently in many of the previous *To-day and To-morrow* volumes from *Daedalus* to *Metanthropos*. He remarked that it is a wonder that biological and medical science came so late to discover the remarkable power of hormones on human growth and development, noting several abnormal conditions known to antiquity that are caused by hormonal or glandular abnormalities; for instance the dramatic changes produced when Eunuchs are castrated (testis), or the conditions known as Cretinism (thyroid) and acromegaly or Giantism (pituitary gland).

Keith described the potent developmental and regulatory role of the endocrine system and its secreted hormones, including their effects on pigmentation, hair texture and body proportions, and other characteristic traits that serve to differentiate the various races. In particular, he described the changes in skin pigmentation between Nordics and Negroes during the foetal stage and after birth, and also in several African apes, as providing confirmation of his theory:

The Negro child passes through all the stages which lead from the lowest to the highest degree of pigmentation—as do the young of the gorilla and chimpanzee. In the fair European the process of pigmentation is arrested at one of the earlier stages foetal stages; in other races we find arrest at deeper and deeper stages of pigmentation. The fairness of Nordic man is an inheritance from the womb; he retains in adult life a stage which is transitory in the [foetal] development of other races. Many human characters have been acquired by the operation of this law [“Bolk’s law”]—the tendency for developmental stages to be delayed until childhood or adult life is reached. (p. 63, 64)

After this introduction to the physiology of the endocrine glands and their secreted hormones, Keith used his hormone theory to explain the racial characteristics of Huxley’s four pure races. He began with the Negro, explaining the relatively hairless body and beardless face as an arrest of male hormones during childhood. He pointed to the physiological evidence that the Negro is a new race, evolutionary speaking, and agreed with Huxley “that new races or species might come into being suddenly—by a jump” (p. 65). The unique “woolly hair” and “everted lips are not ape-like, but new characters; possibly the depth of his pigmentation is also recent. The typical Negro is not an old but a relatively new form of humanity” (p. 65).²³⁴

Sir Arthur next tested his theory on the Mongolian race, finding it less satisfying as a “proof,” but merely “supplying suggestions” (p. 66). He noted that people with an aberrant thyroid gland (secreting too-little thyroxin) caused men and women to “resemble the Mongoloid type.” He also attempted to explain “Mongolian imbecility” (Down’s Syndrome) as having “all the signs of being due to an unbalanced state of the endocrine or hormone system;” producing in its victims “a distinctive physical type which is recognizable at sight, its diagnostic traits recalling features seen in the Mongolian type” (p. 66). Curiously, there is no mention of F. G. Crookshank’s *The Mongol in our Midst* (1924), which Kegan Paul was republishing in expanded and revised form in the same year as *Ethnos* (1931).

²³⁴ Unlike the “out of Africa with modifications” theory of post-modern anthropology, Keith and his contemporaries subscribed to the “into Africa with degeneration” theory from 19th Century sources. This was also exploited in American Nordicism theory and racial anthropology in the South, as first theorized by Louis Agassiz (1807-1873) and reformulated by H. F. Osborn (*Men of the Old Stone Age*, 1915). It was famously popularized by Samuel G. Morton (1799-1851) and his *American School of Ethnology* to justify American slavery and segregation, and then updated by Osborn, Madison Grant and others for the eugenics movement. Stephen Jay Gould’s *Mismeasure of Man* (1981, 1996) is still the best source for Agassiz’s & Morton’s contributions, while Spiro (2010) is my choice for Osborn & Grant.

Keith also spent some time dealing with the distant cousins of the Mongolian race: the Malay type, the “Red Indian” and Polynesian types, and the Eskimos and Laplanders of the Arctic; which he described as showing “an exaggeration of all the Mongolian traits” (p. 67). He used these observations to speculate that the pure Mongolian race was actually a more recent evolution from the older stocks surrounding them, which also explained the sharp transition between the Mongolian to the “Aryan type” found west of the Caucasus Mountains. Keith testified that: “I see only one way of explaining these facts; we must presume that the pure Mongolian type is a recent modification of an old one which is still preserved among American Indian and Polynesian peoples... [and] has been evolved in Eastern Central Asia” (p. 67). He closed this section with a “passing glance on Huxley’s fourth racial centre—the Australian:”

We are all agreed that the aboriginal people of Australia have retained more than any other now living the features of primitive man. Evolutionary change has left the native people of Australia but little affected while it has wrought a transformation in the other three centres of the world—the Xanthochroic, the Mongolian and Negroid. (p. 68)

Curiously, Keith did not describe the racial evolution of the ‘Xanthochroic’ or Nordic type here; that was postponed to a later section. Instead, switched to the *Distribution of Races at the Dawn of History*, and *Machinery of Racial Segregation*; where he explained the physiological, psychological and environmental factors that caused racial differentiation from the dawn of mankind to the arrival of economic man. Sir Arthur offered the interested reader two of his earlier papers from the *Journal of the Royal Anthropological Institute* (1916), and the *Robert Boyle Lecture* at Oxford (1919), in a rare footnote (p. 69). He reminded readers that racial differentiation by physiological modifications, however powerful hormonal action may be, required physical and/or psychological isolation for long periods.

Here, Keith laid before the reader “the explanation which modern anthropologists have to offer for the existence in our world of Huxley’s four chief modifications of Mankind” (p. 69). Rivalling American eugenicist Charles B. Davenport’s theory of rival alleles for Nomadism versus sedentary living (where the Nordic race had a predominance of the wandering-spirit allele), but devoid of any genetic mechanism; Keith explained how tribal man (like top predators in many ecosystems) had a strong territorial instinct, an ingrained preference for their own kind and a deep aversion to other types and an innate preference to remain in their particular “racial cradle” (p. 70). He first explained these isolating factors by reference to that last great bastion of primitive, tribal-man, the Aborigines of Australia:

Each tribe is confined to a sharply demarcated hunting territory; if it passes beyond this tribal frontier then it encroaches on the hunting rights of neighboring tribes and will have to fight or retreat. Intertribal opposition or jealousy isolates a tribe, but still stronger forces bind it to its native territory. Its members are bound together by a community of speech, of customs, and of interest. Every member of the tribe is bound to their native territory by a deep emotional attachment. If their territory is threatened there is roused that potent mental reaction, so deeply tinged with feeling, which is known as patriotism. Tribal organization provides the machinery of isolation or segregation which is necessary if physiological processes are to work towards a new racial type. Traces of a former tribal organization are to be found in all parts of the world; it survived in the clans of Scotland until a recent date. For unmeasured ages it was universal. (p. 71)

Keith only devoted one long sentence to role of physical barriers of terrain and environment, before again turning to the diametrically opposed psychological instincts of “home-loving” versus “wandering or migrating impulses” (p. 72). He lauded his friend, Dr. Walter Heape F.R.S., for thirty years of study in this for humans and other higher animals, and for educating him as to how these “instincts may be suddenly transformed” under certain environmental conditions (p. 72). But Keith argued that in tribal-man “migration must have been always a secondary factor in human evolution; had it been otherwise racial types would not have remained confined to their respective parts of the earth. He again repeated his earlier discussion of “that inborn reaction... known as race-prejudice,” as though it was a discrete evolutionary phenomenon (p. 72). Keith cited zoological research showing this operated in almost all animals, and asserted that race-prejudice “lies latent in men and women as long as they move among their own kind” but when dealing with others outside their group, race-prejudice was instinctively awakened and “may become inflamed and uncontrollable” (p. 73, 74).²³⁵ Rather than apologizing for race-prejudice as aberrant behavior, Keith regarded “race feeling as part of the evolutionary machinery which safeguards the purity of a race” (p. 74). Echoing Sir Francis Galton’s similar assessment of religious customs and other traditional taboos, he added: “Human prejudices have usually a biological significance” (p. 74).

Carefully, like Darwin before getting to the contentious thrust of *Origin of Species*, Keith spent almost five pages, in a “*Summary of the Factors concerned on Race-Evolution*” (p. 74) in which he recapitulated the main questions that have been posed thus far, and the major developments of his argument. He explained how his views largely concurred with Huxley’s ideas, but for the innovation

²³⁵ Keith would later refine this as his “In-group versus Out-group” concept and the “Amity-Enmity Complex,” first published in *A New Theory of Evolution* (1948). This has also sparked more recent controversy, after he applied the theory to the Jewish people’s historic isolation from Gentile society while living within these outsider communities, as being a special evolutionary adaptation of the Jewish race developed in antiquity through the selective effects of the Babylonian and Egyptian captivities. He also used these ideas to explain the periodic persecutions and pogroms that tarnished modernity’s record of Nordic-Jewish relations, in his *Darwin Revalued* (1955).

of his hormonal mechanism and the gradual refinement of Huxley's decade-long research with his own thirty-year dedication to the field. He also documented the inflationary pressures and the "clash of opinion among anthropologists as to the number of existing human races" (p. 76):

Huxley at first counted eleven and subsequently reduced the number to four. Haeckel began with twelve in 1873; six years later he enumerated thirty-four. In 1889 Deniker divided mankind into thirteen main races with thirty sub-races; finally he deemed it necessary to recognize seventeen races and twenty-nine sub-races. The number of races depends on the standard of differentiation we adopt. (p 76)

"The Races of Europe," Nation versus Race Redux, and the Implications for Britain

A firm believer in the Eurasian origin of mankind (like H.J. Fleure and H.F. Osborn), Keith now returned to the *Races of Europe*: that region of the world that "gave Huxley the greatest trouble" (p. 78). This trouble caused Huxley to "discard the term Caucasian" (p. 79), and Keith explained this racial confusion as being due to the "tribal boundaries being swept away and national frontiers taking their place." This in turn was due to this area being the first cradle for the transformation to settled agriculture, giving the inhabitants a great advantage over their tribal hunter-gatherer rivals and allowing their rapid multiplication and expansion: "It is in keeping with all we know to regard the Caucasoid East as the cradle of civilization and to suppose that from this centre wave after wave spread westwards across Europe, finally breaking on the British Isles" (p. 79, 80). This amalgamation of races brought evolutionary disorder, but "not utter confusion," for there was still a racial pattern recognizable to anthropologists: "a zone of long-headed swarthy peoples in the south, long-headed fair people in the north, while the intervening areas are occupied by peoples with... round heads and intermediate degrees of colouring. In the Caucasoid area civilization has everywhere queered Nature's plan of evolution" (p. 80).

Keith alleged that the dislocation of the Great War re-exposed these "deeply buried" racial passions and the same social forces were at work in the post-War "small nation movement" in which components of defeated empires sued for separation and independence. Keith blamed the statesman who dealt with these demands as "political not... biological problems" and insisted "these problems must be considered from a biological and evolutionary point of view" (p. 81).

As an exemplar of this new scientific viewpoint, Keith again turned to the national problems of Britain. The racial confusion in Continental Europe was repeated in Britain's ethnic mix, as realized by Huxley, who "denounced all claims for national separation made on the score of race as mere shams" (p. 81). Without geographical or untoward social isolation, the various races of Britain "each with

their own physiological machinery” of racial evolution mingled, and became further hybridized by the arrival of industry, “but not eradicated” (p. 83). Much like the first Eukaryotic cells were formed by larger primitive cells swallowing but not destroying smaller invaders, thereby forging a more evolved symbiotic relationship, blends of human races formed new associations, with “National spirit and patriotism [being] its modern manifestations” (p. 83):²³⁶

When races meet and mingle in strange lands or when they are thrown together by economic necessity, Nature’s efforts at race production are thwarted thereby, but she at once sets to work to repair the mischief and to build up by fusion a new race. Nation-building is the first step in race building. (p. 83)

Although he was careful not to impugn Huxley’s overall enviable record of correct scientific verdicts, Keith suggested Huxley’s zoological method were “too crude for the purpose he had in view” and unable to cope with the “imperfectly differentiated” mixture of races in Britain (p. 83). Thus, each of the four component nations was in the process of becoming more alike internally, but differentiated externally: “Our nationalities are real races in a microdiacritic stage of evolution” (p. 84).

Instinct versus Reason, Tribal Man versus Economic Man, “Peace, War and Race”

Keith returned to the “constant strife” experienced by modern, economic man between his “still dominant” unconscious racial instincts from the tribal stage, versus his will to cooperate in the exercise of nation building with disparate races. The long-term evolutionary scheme of race-building was “being foiled by civilization,” disrupting great natural experiments in racial progress, as a result of the discovery of the arts of reaping and sowing. He claimed man was “awakening to the fact that Nature’s primary end—race building—is incompatible with the necessities of the modern economic world and is asking himself: What must I do?” (p. 85). Should humanity bring race-building to an end to secure “eternal Peace,” or permit Nature to guide the course of development at the price of sporadic war? Keith insisted we must choose one option or the other: “There is no intermediate course possible” (p. 86).

²³⁶ In America, on the other hand, the increasing racial mix brought about by unrestricted immigration from Europe, led to the rise of the *Nativist* movement in the latter-half of the 1800s, and its successor Nordacist movement (as personified by H.F. Osborn and Madison Grant), who wanted to preserve “America for ‘native’ Americans” as a ‘civilization preserve’ for the Nordic race, culminating in post-WW I legislation to restrict the influx of southern and eastern Europeans (the ‘swarthy’ Melanochroi and ‘round-headed’ Alpines in Huxley’s and Keith’s racial surveys).

Before presenting the particulars of each choice, Keith reviewed the old dilemma long plaguing philosophers as to the relative racial merits between primitive tribal man and modern economic man, as famously debated by Hobbes vs Locke, and numerous others before and since. He pointed to his “friend Professor Elliot Smith” as a disciple of Hobbes, “until the economics of the modern world corrupted his nature” (p. 86). He admitted there are just as many (unnamed) authorities “who believe just the opposite,” arguing that “his good qualities came into being with the dawn of civilization.” Keith asserted that the truth was that tribal man was both good and bad, and further that “tribal life—which was universal—is possible only if man can hate as well as love. Every member of a tribe must have a double nature” (p. 86); both love for the tribe and hate for those outside it. This dual nature was locked inside all of us, despite the trappings of modern civilization. There was only “one escape for man” if he wished to conquer his evolutionary instincts toward race-prejudice:

His nature must be transformed, so that the whole population of the world may become members of one tribe. To bring about such a consummation Mankind would have to be deracialized, and every man and woman be bred down by hybridization until all wore the same livery of living flesh. We have to choose between that consummation and the parlous state in which we live. (p. 87)

Appealing to the same noble sentiment of “world peace” as the unmentioned Bertrand Russell in *Icarus* (1924), Keith claimed he gave his all to work for peace and mutual understanding, and this “ultimate aim” was shared by “all who labour in the field of Anthropology” (p. 88). He pitied poor Europe, broken and suffering as a result of the Great War, but the patient was prescribed the medicine it needed: “the League of Nations was just the balm she longed for; it held out the promise of a perpetual peace” (p. 88). Member nations, great and small, “gave up...its most precious right... the right to determine its place and destiny in the world. Nation building is to be carried out under license issued by the League” (p. 88). Although he approved of this control in principle, he noted that member states had merely agreed to have their “racial claws—their military forces—pared,” but not eliminated. He also charged that in trying to curtail the imperial ambitions of the victorious Great Powers and dispose of the remnants of the vanquished, the League had unwittingly begun some uncontrolled race-building experiments; claiming that “every small nationality is a possible race and the probable source of an infinity of trouble to the world” (p. 89). In a prophetic heralding of events only a few years in the future, Keith predicted that “any highly strung nation” blocked from its future ambitions for greatness, “will [not] abjectly submit to such a fate without making a fight for its fuller life” (p. 89) He also predicted the grand failure of the scheme: “No matter how strong the League of Nations may be or how complete the world may become policed—so long as mankind is divided into a diversity of races there can be no real peace” (p. 89).

“Is Deracialization of the World Possible?” Is it “The Only Way”?

With only two pages left to “consider what is best for the ultimate destiny of mankind,” Keith insisted it was time to choose between either protecting and strengthening individual racial heritages or “to obliterate racial boundaries by universal intermarriage” (p. 89, 90). He considered the latter first, “convinced that deracialization is possible” and noting “some human races are already domesticated in the same sense as our sheep and cattle are” (p. 90). Keith even went further, explicitly referring to eugenics for only the second time in the book, and described in some detail how the task might be accomplished:

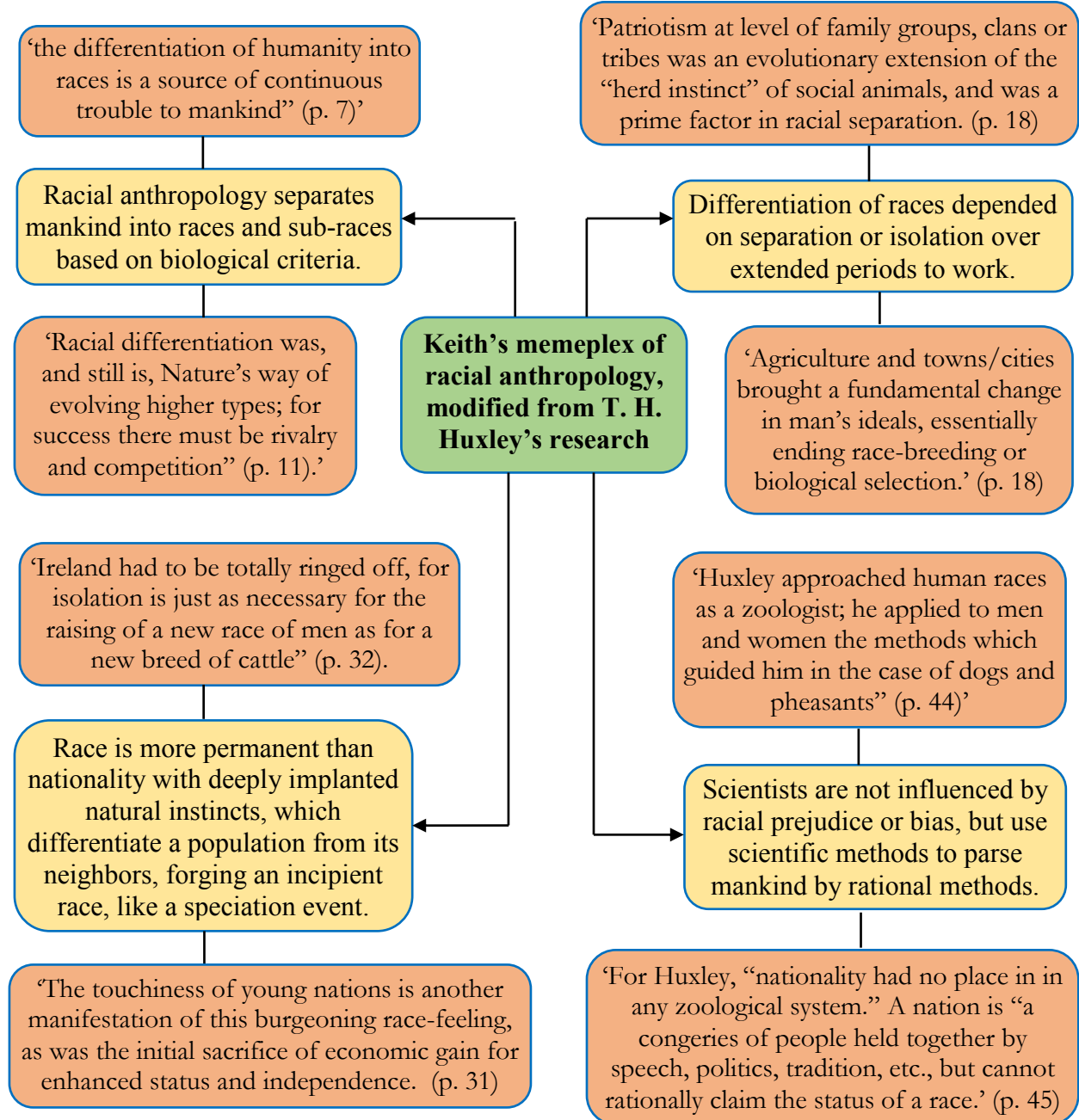
I am sure that a skilled Eugenicist, if he took the task in hand, could succeed in reducing our wildest and strongest races to a satisfactory state of domesticity in the course of time—how long I cannot guess. Fifty generations of breeding should take him a considerable way towards the desired goal. He would eliminate the undesirables. Any individual showing a trace of preference for his homeland, for his own people for his own country, who displays any degree of independence of spirit or any manifestation of valour, must of course be resolutely exterminated. A tendency to run away from danger would have to be encouraged and commended. In short, Eugenicists would have to exert their strength and ingenuity in destroying what has taken Nature at least a quarter of a million years to build up—the present races of the world. (p. 90, 91)

Without being familiar with the contemporary debates in eugenic circles as to how many generations various racial blending, untangling, or improvement schemes might take, the casual reader might be inclined to dismiss the entire option as impractical, if not impracticable in time to rescue humanity. But in the very last section, readers were presented with a less drastic, “better way” to solve the more acute difficulties and obtain at least a partial peace, presented as: *The Only Way*:

I think there is only one way. Men must be convinced that evolution is true in practice—as well as in theory. They must realize, recognize and bring all their inborn tribal instincts and racial prejudices under the rule of reason. It is only thus that the diverse races of mankind can live in the same world and yet preserve their respective heritages. I am convinced that the problems of race can be understood and solved only by men who approach them with a knowledge of the past. Evolution of man is a theory which must be constantly applied in the affairs of every-day life; without it we have no clue to the perplexities of racial animosity which ever disturbs the peace of the world. (p. 91, 92)

With these prophetic words, Keith ended *Ethnos*, but the nascent process of race-building continued and even accelerated towards the end of the decade. The meme-map on the next page (Figure A3-35) summarizes some of the key memes and clusters presented in the book.

Partial Meme-map of Sir Arthur Keith's Racial Anthropology in *Ethnos*



Color Code:

Meme clusters

Memes or small clusters

(Blue borders signify an implicit Nordacist paradigm)

Figure A3-35: A partial meme-map showing some memes and meme-clusters in Keith's *Ethnos* (1931), itself adapted from T. H. Huxley's 19th Century research on the ethnology of human races. Although Keith did not endorse any explicit eugenic agenda, his explication of Nordacist racial theory in parts of the book, especially for the non-White races, and promoting the polygenic origins of disparate races, earns his expressed worldview and operant paradigm the blue borders of Nordicism or Race-hygiene.

It is worth noting that none of the schemes attempted by eugenicists, or reformers of all stripes: Hereditarians, neo-Lamarckians, neo-Vitalists, genocidal racists or anti-racism activists; from all points of the academic, philosophical or political compasses have ever achieved Keith's goals; despite fervent efforts to translate Keith's *Only Way* into a coherent set of policies or programs. All too often they have also failed in the quest to replace tribal instincts or class-racial prejudice with reason, in some cases even lionizing these 'primitive' values; all while claiming the authority or invoking the justification provided by memetic blends of Darwinism, history, philosophy, religion, science, tradition and political ideology. And in almost no instance has there been consensual agreement over the means and ultimate ends of such transformations, despite coercion and education, or state control and enforcement. And in the interim, there are more, not fewer nation states and factions; and ongoing calls for separation or other forms of self-determination based on race or ethnicity.²³⁷

A Contemporary Review and “*Race Problem*” Analogues

In searching for online reviews of *Ethnos, or the Problem of Race*, it soon became apparent that the “Race Problem” (inverted from “Problem of Race” in the title) was a very popular topic in academic journals, popular magazines and other periodicals that featured book reviews. Even in the narrow time period of 1923-1931 (from *Daedalus* to *Ethnos*), there were hundreds of listings. The first four pages were nearly all from American sources, with titles listing some “race problem” in a state, region, or nation under ethnological study. Further down the search hits, the American monopoly began to switch to German and other Continental sources. Right at the top of the search list was a review of *Ethnos*, in *The Eugenics Review*, by Keith's friend, Professor H.J. Fleure (1877–1969). It was the only listing for a review of *Ethnos*. At the time, and for many years afterwards, Fleure was a regular *Eugenics Review* contributor of articles on race, eugenics and evolution, and a frequent reviewer of eugenic publications, including German racial anthropology and race-hygiene texts. Fleure had just moved academic posts from Aberystwyth University in Wales, where he was professor of Anthropology and Geography, to Victoria University in Manchester. He was later elected to the Royal Society in 1936, and became president of the *Royal Anthropological Institute* immediately after World War II. Despite the paucity of explicit references to eugenics in the book, Fleure gave Keith a glowing review, praising the author for placing the issue of race problems before the public, as excerpted in Figure A3-36 on the following page:

²³⁷ One need look no further than the Brexit referendum and the nefarious role race and Islamophobia played in the preceding campaign, or the renewed white supremacy and neo-Nazism in Continental Europe that hailed Brexit and Trump's victory in the American election of 2016 as proof of concept.

Keith, Sir Arthur, F.R.S. *Ethnos: or The Problem of Race.* London, 1931. Kegan Paul. Pp. 92. Price 2s. 6d.

THIS is an interesting addition to that lively series known as "To-day and To-morrow" and gives what we expect from its author, namely his personal reflections on the subject, based upon a lifetime's work in anatomy and physiology that has not dulled a strong artistic and humanist tendency, which is one of the most distinctive features of Sir Arthur's personality. He sees that we should not let ourselves accept the idea of race division as a process that belongs only to a far-off past. Races are always in process of formation: nations, in Sir Arthur's view, are groups that may or may not become races in time; they have started on the dangerous road of 'self-determination,' the goal being race formation, but that goal is rarely reached. This concept is one that, in varying degrees, is widespread among race-students, and we are indebted to Sir Arthur for placing it before the public.

The book gives interesting glimpses of ideas that are developing concerning the bearing of the various endocrine glands, and so on, on growth, and the author sees—few do better—that ontogeny is a process involving both heredity and environment.

The general conclusion is that the rise of scientific thought has forced humanity to make it intervene in one field after another, and we must welcome its intervention in matters of breed, while not expecting that we shall miss the phase of trial-and-error, through which many aspects of human affairs are always passing.

H. J. FLEURE.

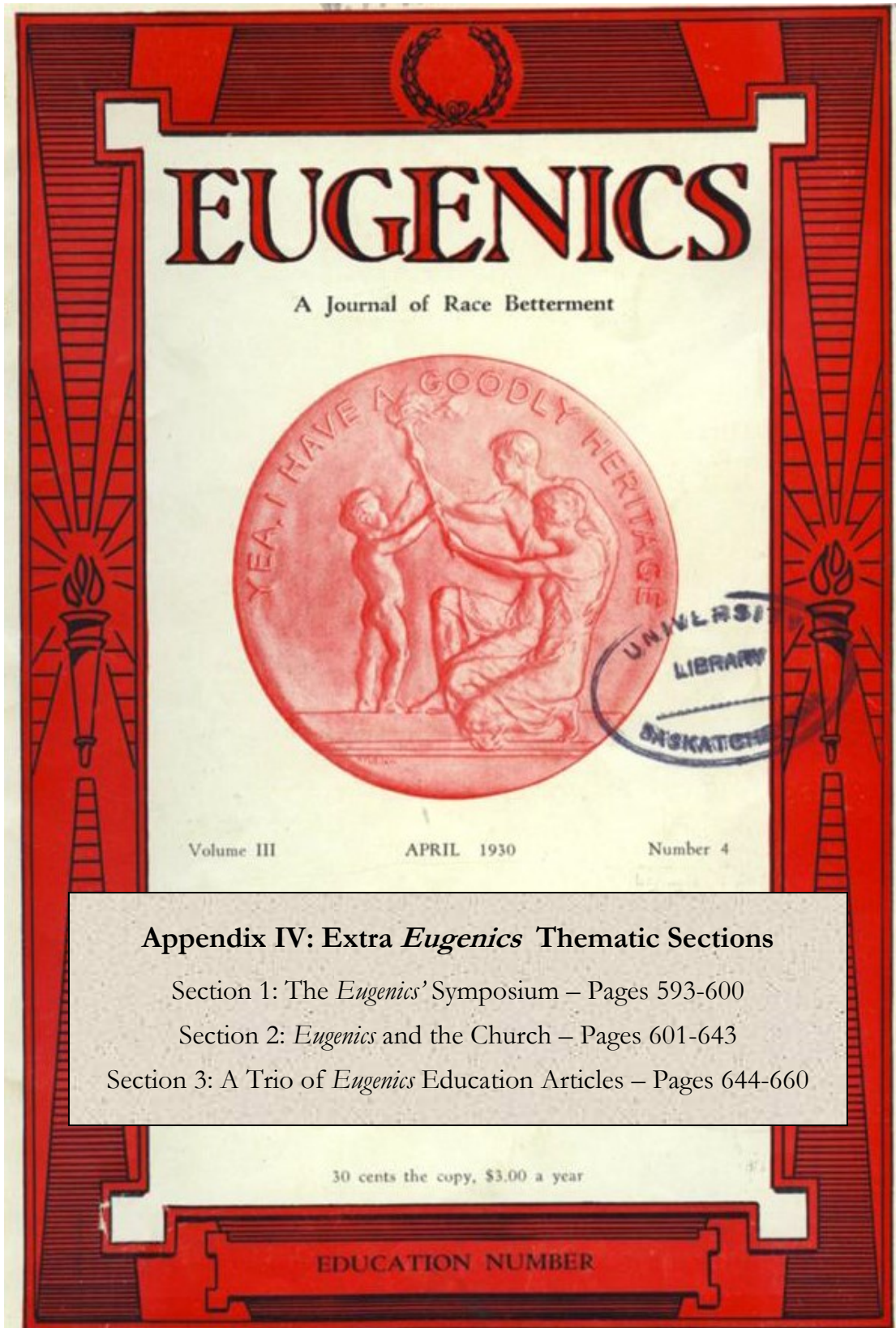
“A New Point of View” or a Recapitulation of Classic British Anthropology?

It was certainly fitting for the *To-day and To-morrow* series to include a volume by the elder statesman of British anthropology, especially considering the number of times he was cited as an authority by other authors in the series. But it is difficult to appreciate how *Ethnos* was bringing “a new point of view” to the question of race, as referred to in the eventual subtitle. The originally proposed subtitle used in promotional ads for forthcoming volumes of the series, *the Problem of Race, considered from an Anthropological Standpoint* was more apropos.

Considering that *Ethnos* lacked any reference to genetics, and was primarily concerned with restating T.H. Huxley’s ideas on race, Keith’s contribution was really more of a return to, or a recapitulation of 19th Century British anthropology. It harkens back to a time when natural philosophy by gentlemen scholars had not yet given way to professional scientists in academia. Neither Lamarckian, nor hereditarian, *Ethnos* fills the gap between the Neo-Darwinism and Nordicism of early 20th Century Continental anthropology, as exemplified in the series by F. C. S. Schiller’s *Tantalus*, or F. G. Crookshank’s *The Mongol in our Midst*; and the Neo-Lamarckianism of W. R. Brain’s *Galatea*, or, to a lesser degree, the neo-Vitalism of R. C. MacFie’s *Metanthropos*. In this scientifically diplomatic middle-ground, it is a stark counterpoint to the Nordacist anthropology of American anthropologist H. F. Osborn and his strict hereditarian school, as popularized by Madison Grant in his *Passing of the Great Race* (1916).

The American Nordacist gospel was later Germanized by Hans F. K. Gunther (1891–1968), in his *Racial Elements of European History* (translated to English in 1927). It is also a historical progenitor of the sort of racially-reformed Human Geography that formed the core of the research program that the British *Eugenics Society* pursued after 1935 or so, or which the reformed *American Eugenics Society* pursued after WW II; with the addition of medical genetics and biometry that *Ethnos* lacked.

Appendix IV: Extra *Eugenics* Thematic Sections



Appendix IV: Extra *Eugenics* Thematic Sections

Section 1: The *Eugenics*' Symposium – Pages 593-600

Section 2: *Eugenics* and the Church – Pages 601-643

Section 3: A Trio of *Eugenics* Education Articles – Pages 644-660

Introduction to Appendix IV

This appendix covers some additional thematic sections or regular departments of the AES's official journal: *Eugenics: A Journal of Race Betterment*, not presented in Chapter IV. It is accompanied by an image file containing pictures, tables, and selected text excerpts of the journal, just like Chapter IV. These sections are supplemental to Chapter IV, each revealing additional facets of the Interwar eugenics movement in America, and highlighting their evangelization through popular, formal and professional education.

The first section deals with the popular *Eugenics*' Symposium, first introduced in the 'Birthday Number' section of Chapter IV. This section presents a sampling of the monthly Symposium feature with obvious educational implications. The Symposium feature represented one of the most obvious popular education functions of the journal, evangelizing laymen to the eugenics creed and highlighting eugenic problems and proposed solutions for racial betterment.

Next is the 'Eugenics and the Church' section, which debuted as a feature-article by the same name that appeared in the December 1928 'Religious Number' (v1n3, pp. 6-9). The article was written by Reverend Kenneth C. MacArthur, who was one of the winners of the first Eugenic Sermon contests sponsored by the AES (1927). His initial article later became a semi-regular department in the journal in 1930, after MacArthur was named the secretary of the AES Committee for Cooperation with the Clergy. The focus is also on popular education, for the pious layman or sympathetic cleric.

The last major section here covers three feature-articles from *Eugenics*' production run, each with a different educational focus: "Eugenics on Parade," by S. Wayne Evans for Popular Education; "How to Interest College Students in Eugenics," by NYU Professor Rudolf M. Binder for Formal Education; and "Mongolian Imbecility," by Dr. Madge T. Macklin, for Professional Education. Although all three authors were mentioned or featured elsewhere in the pages of *Eugenics*' over its short life, these exemplars each represent their only feature-article contributions to the journal.

Each of these three sections offers insights into the American eugenics movement of the time, and further exposes the journal's educational mission and prominent cultural themes. Each section contains one or more meme-maps for the particular memes and paradigms on display, and in combination with Chapter IV, provides a more complete overview of American eugenics memplexes (both 'Nordicist' and 'Reform Eugenics' strains) as well as the prevailing hereditarian worldview. The separate image file can be printed or viewed from the PDF file, allowing for magnification to see any fine details or small text. With this brief introduction completed, let us turn to the popular *Eugenics*' Symposium feature, as a prime example of the popular education function of the journal.

Section 1: Eugenics Education on Parade in the *Eugenics*' Symposium

The monthly symposium in *Eugenics* was one of the more popular regular features of the new journal, and one the AES fully intended as an enticement to get more laymen and outsiders interested in the movement. The discussion topic of each symposium was usually matched to the theme of the issue, and designed to be controversial, in some cases even worded as a detractor of eugenics might express. Good examples of this were the provocative questions: “Is Eugenics Race Snobbery” (February, 1929), and “Is Eugenics Scientific Calvinism” (January, 1930). These questions served as a rhetorical straw-man to be attacked, perhaps even changing the perceptions of any uncommitted reader who was not fully versed in the topic at hand; though unlikely to dispel the ingrained attitude of any committed opponent or hardened critic (due to the operation of meme-filters).

Indeed, this regular feature was the one section of *Eugenics* that regularly gave a soapbox to opponents or critics of eugenics, other than the occasional naysayer in the letters section. This confrontational approach seems to have succeeded in attracting interest and provoking reaction. But official reaction from the casual reader in the “What Readers Write” section was less common than from the committed core. Partisans oftentimes responded with curt letters admonishing the eugenically hostile or uninformed opinions expressed by any infidel guest panelists, and wished that they would have been immediately corrected or ‘put in their place.’ Of course, this provocation of the base had its obvious utility, if it made inactive members get more involved, got people talking to their friends, neighbors and co-workers; perhaps even adding new subscribers. Remember, this is before the universal penetration of radios into American homes, a couple decades before the initial spread of television; and long before specialized cable channels, electronic newsletters, or the World Wide Web revolutionized the way public opinion is shaped and altered in the present age of almost instantaneous global dissemination of memes and propaganda. But unlike the period mass-circulation newspapers or magazines for a general audience, the *Eugenics* symposium was an edited, self-contained forum, where the message and its tone could be carefully controlled.²³⁸

As one would expect for any central issue in eugenics, such as educating the public was for eugenicists, various aspects of education were explored from a eugenical standpoint. This section will review four of the more relevant symposia to popular and formal education, both from the obvious instructional angle, and the mutual influences of education and eugenics.

²³⁸ It was revelatory to read the Dec. 1929 Editorial (p. 30), entitled “Propaganda and The Lobby,” lamenting the increasingly negative connotations of “propaganda” and “lobbying,” rather than the neutral or positive connotation these terms had enjoyed when the population was more homogeneous and united in its attitudes. This theme was also pondered in the *Birth Control and the State* (1926) volume of the *To-day and To-morrow* series, among others.

The four selected symposia cover various aspects of education and eugenics, from popular, to formal, to professional, to the underlying societal attitudes that mutually impact all these ideas and their applied technologies. Before each is detailed, the summary table below in Figure A4-1-1 will serve as a convenient introduction to the selected symposium topics, and to the featured panelists and their stated credentials. Brief biographies are excerpted later in this section for the March 1929 issue.

Issue	Symposium Topic or Question	Participants
April 1930	Popular Education in Eugenics: What is a Practicable Program? The participants for this month were all members of the AES <i>Committee on Popular Education</i> , minus chair/editor Dr. Sherbon	Albert Edward Wiggam (Author, Lecturer) O.M. Plummer (Agriculturist, Practical Geneticist) Caroline Ledger (McCormick Memorial Fund) Luther S. West (Battle Creek College) W.M. Goldsmith (Southwestern College, Kansas)
Mar. 1929	The Reproductive Rate of Genius: Will Birth Control Diminish It? The participants here, except for the good Father, were all AES insiders and frequent contributors to <i>Eugenics</i> ; see later bio-briefs	C.C. Little [President of AES for 1928-29] Mrs. F. Robertson Jones Dr. Hannah M. Stone Father John A. McClorey [Catholic Priest] Margaret Sanger
Dec. 1930	The Faculty Birth Rate: Should it Be Increased? This forum for the “Child Allowance Number” considered the eugenical gold of the children of faculty at America’s colleges and universities; proposing ‘baby bonuses’ to encourage their prodigious procreation and banish the spectre of the ‘racially-suicidal’ WASP ‘Spinster’ or ‘Old Bachelor’ professor.	J. Russel Smith (Columbia University) C.C. Little (R.S. Jackson Memorial Laboratory) E.A. Ross (University of Wisconsin)* C.E. Seashore (University of Iowa)* H.H. Newman (University of Chicago)* Kerr D. McMillan (President, Wells College) * Members of the AES advisory council (see Figure 2 in the Introduction to <i>Eugenics</i> section)
Feb. 1931	When Wives Teach School: Should Eugenicians Demure? This symposium from the untitled final issue of <i>Eugenics</i> was a follow-up to a feature article “The Married Teacher Question” by Dr. Luther S. West (see first above) in the Dec. 1929 “Woman’s Number” (v2n12, pp. 6-11)	Bessie Averde McClenahan (University of Southern California) Elizabeth L. Woods (Division of Psychology and Educational Research, Los Angeles Public Schools)

Figure A4-1-1: An overview of four selected *Eugenics*’ Symposia focusing on education issues. Note the prevalence of AES insiders: from the executive, directors, committee or advisory council members. Also notice the paucity of female participants (only one was a university-affiliated academic), except for the highly-gendered forum on birth control, and then again for the eugenically thorny issue of married female teachers and their fecundity in the last issue. This last topic had also been the subject of a previous feature article and other editorials or a subtopic in other pieces.

What follows is a brief presentation and discussion of each of these four samples, with excerpts and pictures to flesh-out these educational exemplars. The entire symposium series could almost serve as an executive summary of the journal’s publication run, and would still make for an adequate introduction for the uninitiated layman of today to the essential eugenics memes of the period.

April 1930: Pondering a Program for Popular Education in Eugenics

This selected forum on popular eugenics education merely skims the surface of what was a central and vital question for any eugenics organization. Popular education was critical for the AES' goal of growing from a small, highly dedicated cadre, to a national organization with thousands of members; and then onwards to a popular breakthrough into mainstream WASP society. The fact that the AES dedicated both a committee and a regular column in *Eugenics* to this specific purpose, and employed so many high-level academics and leaders for this goal, are all evidence of the high priority placed on evangelizing a super-critical mass of leaders, professionals and voting public, as well as the parents and prospective parents of future eugenically-inclined generations. See Figures A4-1-2a and A4-1-2b on pages 134 and 135 of the Appendix IV image file for excerpted responses of the panellists.

This forum, from “The Education Number,” was just one brief episode in the prolonged efforts by *Eugenics* to delineate a program for popular education in eugenics. This started in the debut issue, with C. C. Little’s lead article “Eugenics and Education” in the “Birthday Number,” and continued through the production run; finally culminating in the full-length book: *Organized Eugenics* (1931) published by the AES under the editorship of S. Wayne Evans, the full-time secretary of the Popular Education Committee. Refer the section on “Popular Education” in Chapter IV, edited by committee chair and veteran Fitter Families organizer Dr. Florence Brown Sherbon for more details and additional exemplars, and also Evans’ feature article “Eugenics on Parade” in Section 3 of this appendix dealing with three representative feature articles on education in *Eugenics*.

The April 1930 issue of *Eugenics* also devoted a feature article to formal eugenics instruction in colleges and universities, by New York University professor Rudolph M. Binder (who authored and was profiled in the “Eugenical Institutions” for July 1929, see Section 3 on feature education articles). It also included an article on birth control by professor H. R. Hunt, profiled in the Eugenical Institutions section for September 1930, and this feature was devoted to *The Family Relations Institute* by director Paul Popenoe (see section on Eugenical Institutions in Chapter IV). The contents for the April 1930 *Eugenics* are shown in Figure A4-1-3a on page 135 of the image file. Thus, all these memes and educational thrusts were incestuously interrelated in terms of thematic connections within successive issues of the journal, and also in terms of the feature authors and regular contributors to *Eugenics*. The same familial phenomenon will be evident in the subsequent examples devoted to birth control and eugenics, child allowances for college or university faculty members, and a debate on the eugenic wisdom of having married female teachers in elementary or secondary schools.

March 1929: Debating the Eugenic Implications of Contraception on Generating Genius

As explained in the section on “The Birthday Number” (see the review of the first-installment of the “Birth Regulation” department), the positions among eugenicists on contraception were conflicted, even within the leadership of the AES and its satellite organizations. Many of the older traditionalists were, at best, lukewarm in their support for contraception. They believed that it had an overall dysgenic effect, as the people using it most were old-stock American families, professional couples and upwardly mobile young progressives who should be marrying early and having more children; while the poor, unfit and undesirable immigrants were reproducing their kind almost unchecked. Others, particularly women in the eugenics movement, were almost unequivocal in their support for birth control even in the most eugenic of families; as a means of spacing births to their eugenic optimum, and thus saving the lives and long-term health of mothers and children. Advocates pushed for increased access to contraceptive advice and information, and subsidized provision of contraceptives for poor, or working-class women; especially those public charges that already had one or more children being supported by the State, if segregation or sterilization was not an option.

Many women and associated medical professionals in various birth-control advocacy organizations became allied with the eugenics movement, or were centrally involved. This was true in the British eugenics movement as well, as revealed in several volumes of the *To-day and To-morrow* series, especially C. P. Blacker’s *Birth Control and the State* (1926), Norman Haire’s *Hymen, or the Future of Marriage* (1927), and Dora Russell’s *Hypatia, or Woman and Knowledge* (1925). See extended reviews of these titles and discussion of the series in Chapter III and additional reviews in Appendix III.

Some of the ‘progressive’ Protestant churches had already endorsed contraception for married couples (and ONLY for legally married couples). Others were still on the fence, or were against the practice except for mitigating medical circumstances; much like the later debate on abortion, which American eugenicists generally viewed as murder. The Roman Catholic Church maintained its strict prohibition on artificial contraception for anyone, even issuing a Papal Encyclical in late 1930 that was the subject for several columns in *Eugenics* at the very end of its publication run, and the cover story by the prolific professor Roswell H. Johnson in the first and only issue of *People Magazine* (see section on this special issue in “The End of *Eugenics*” in Chapter IV).²³⁹

²³⁹ The September 1930 “Eugenics and the Church” column (v3n9, p. 354) has a summary of the official positions on contraception for married couples by various American churches. It quotes Rev. Dr. John M. Cooper of the National Catholic Welfare Conference (a repeat panelist on the symposium as a critic of eugenics) for the attitude of the Holy See on use of contraception. It also quotes a Rev. Leo Lehman, of the *American Catholic Church*: “which considers itself validly Catholic, although not in affiliation with the Holy See, who says ‘The question of birth control is to be decided by the individual rather than by a dogmatic rule of the church.’ ” This organization (founded in Illinois in 1915) gradually withered to insignificance during the Depression, mirroring the decline of the eugenics movement.

While strictly moral arguments had long been deployed against contraception (as still today with abortion), the rise of eugenics and scientific progressivism had forced the traditionalists to also expand their arsenal of anti-contraception rhetoric to include ostensibly ‘scientific’ arguments. These sometimes also served allied political interests on the part of Catholic or other non-WASP minority religious groups (such as Orthodox Slavs, Eastern European Jews, etc.). In this edition of the symposium (pp. 22-24), the topic of widespread use of birth control leading to potentially dysgenic decline in the production of geniuses, was a not entirely successful attempt at limiting debate to the more ‘scientific’ aspects of the question. The responses from one Catholic priest and theologian, arrayed against AES president C. C. Little and three high-level female advocates are excerpted in Figures A4-1-3b, c on pages 136 and 137 of the image file. Figure A4-1-3d on page 138 of the image file provides bio-briefs for each of the participants, from the “*Eugenics’ Who’s Who*” (p. 41). It also exposed the “primary source” of the topic for this debate: C. C. Little’s address as the President of the AES to the annual meeting of Dr. John H. Kellogg’s *Race Betterment Foundation*, in Battle Creek Michigan, a notable parallel eugenics organization and the home of Battle Creek College.

Encouraging Genius to Reproduce: Care for the Eugenically Valuable Children of Faculty

The next exemplar of the *Eugenics’* Symposium comes from the December 1930 “Child Allowance Number,” and should be of interest to today’s faculty members in the social sciences, humanities, and education faculties. Like their progressive forebears of 1930, some find themselves having to sacrifice and save in order to fulfill their civic-biological duty to prolifically reproduce in a less-than-friendly economic milieu (or even become ‘spinsters’ and ‘old bachelors’). This issue of *Eugenics* showed the same multiple-pronged approach brought to bear on the basic thematic issue (in this case the eugenic import of child allowances). It focused not on the children of Protestant clergymen, as was previously popular going back to Galton and the earliest conceptions of eugenics and inherited genius, but was updated for a new, eugenically promising class of today and tomorrow: the faculty members of American colleges and universities. The table of contents in Figure A4-1-4a on page 135 of the image file illustrates of the topical coverage for this issue.

Casual readers, or newcomers to *Eugenics* who got hooked by the short, snappy symposium, could explore the issue further through the four feature articles and dedicated regular departments. Figures A4-1-4b and A4-1-4c on pages 136 and 137 of the Appendix IV image file puts the question and introduces the four august and exclusively male faculty members who served as panelists.

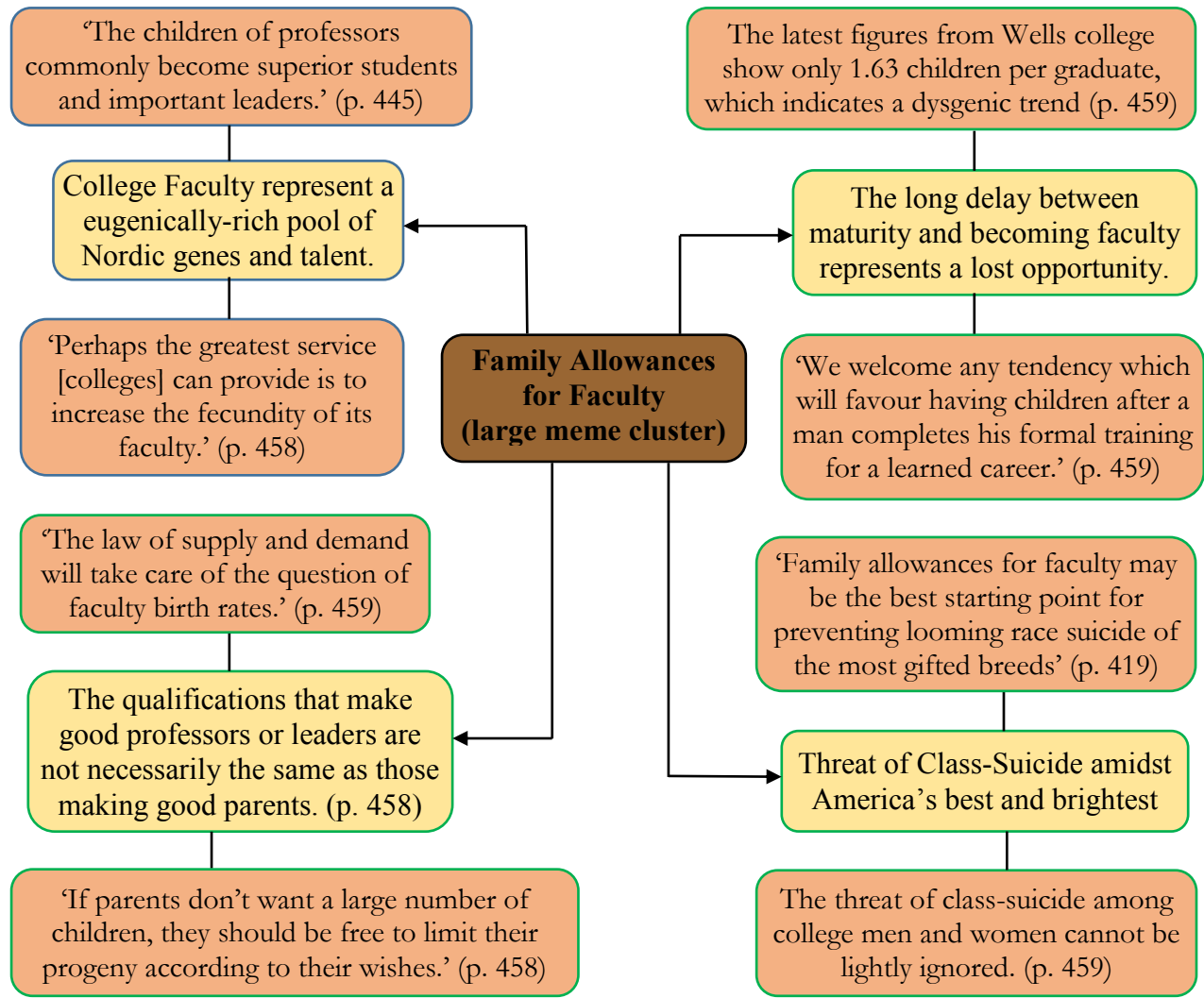
In addition to the issues of birth control, education, genius or superior eugenic value; this forum also briefly explored the thorny side-issue of whether or not ‘pure’ intelligence, as measured by IQ scores or academic achievements was positively correlated with being superior parents or eugenic incubators of future excellence. Although this edition did not explore the issue in depth, previous articles had suggested higher education was not always conducive to eugenic goals, and especially that advanced academic pursuits by women could actually be detrimental to eugenic motherhood, especially its quantitative deficiency. Whereas the previous forum had considered a potential deficit in the production of genius, this later episode (still a year or more before the nadir of the Depression), as well as the feature articles, considered the possible extinction of the best and brightest of old-stock Anglo-Saxon Americans; just as ‘new immigrants’ and existing ethnic minorities were starting to populate numerous prestigious academic posts. Many of these, like the growing Boasian School of Environmentalists, placed little or no value in hereditary protectionism for Nordics, and were quite happy to accept academic posts, even without added baby bonuses.

Thus, as suggested by panellist H.H. Newman, the law of supply and demand regulated the faculty market, rather than maudlin hereditarian or racial sentiment. Newman even invoked Galton’s law of regression towards the mean to argue that outstanding academic ability often skipped one or more generations, or was banished entirely from a bloodline if the gene carriers did not reproduce beyond the bare replacement level, which was slightly greater than three children during this time.

The partial meme-map on the following page (Figure A4-1-4d) summarizes some of the expressed memes and clusters for this edition of the Symposium. Regardless of the selective urgings of the AES and its committees, universal family allowances grew in popularity during the Depression, but the kind of targeted subsidies for WASP paragons of eugenic fitness never got beyond the committed base of the movement. Under the New Deal promoted by Franklin Roosevelt, race, religion and educational attainment were not part of the desiderata for government-funded family allowances or baby bonuses, leaving a handful of private Ivy League institutions to fend-off WASP race-suicide and encourage the next generation of geniuses and Nordic talent.

For the finale Symposium episode covered in this section, we will return to primary education and the question as to whether married female teachers should be allowed to continue teaching, especially if they simultaneously wished to become mothers.

Meme-map for the December 1930 *Eugenics*' Symposium on Family Allowances for Faculty



Color Code: Meme clusters Memes or small clusters (Blue borders - Nordicist paradigm)
(Green borders - Reform paradigm)

Figure A4-1-4d: A partial meme-map of the Nordicist and non-racial (Reform eugenics) memes and relevant themes for the question as to whether college faculty members (or worthy graduate students or fellows) should receive family allowances. It was hoped this scheme would offset their typically low salaries at most institutions of higher learning, especially for younger faculty that are just starting their careers, and who may not be tenured or financially secure during their eugenic prime. The Symposium responses here were not racially explicit, but instead used class or educational attainment as proxies. The previous three articles in this issue (see table of contents in Figure 1-4a on page 6 of the image file) were more explicit in asserting that professors (almost all male) at American colleges and universities were an important pool for bright and talented Nordics who should sire as many children as possible to maintain Nordic dominance and avoid the dysgenic spectre of WASP race-suicide.


February 1931: Debating the Eugenic Merit of Married Female Teachers

At the primary school level, single women (many just out of high school themselves), formed the great majority of the teaching vocation, especially in small rural or county schools. Even in urban jurisdictions, single females formed a majority bloc of the elementary teachers, and they received significantly lower pay compared to secondary teachers, many of whom were men with families to support. Rural school jurisdictions often had firm policies against married women teaching school, especially if they wanted to raise a family, or were in the process of doing so (this was long before contractually guaranteed or paid maternity leaves). While some larger urban school boards allowed married women to continue to teach, they generally discouraged women from teaching during their child-bearing years. As the feminist movement grew, female teachers began to push for the same kinds of working conditions and employment rights as their male counterparts. The symposium for the last issue of *Eugenics* (February, 1931) looked at this issue, not from a ‘second-wave’ feminist perspective, but from a familial-racial eugenic standpoint. It is unique in only having two panelists, both women, for a head-to-head debate effect. See the rather uneven rhetorical salvos from the two dueling panelists, as excerpted in Figure A4-1-5 on page 141 of the image file.

The eugenic argument for prolific procreation among educated females, including trained teachers, is one of the major memetic differences between first-wave (mostly WASP) feminists, and their second and third wave successors. Regardless of the eugenically enlightened opinions of these two progressive panelists, the shift to allowing married female teachers to remain employed when they wanted to start a family, or the actual provision of maternity leaves was still years away, especially in poor, rural school districts of the Bible Belt and Deep South.

The Eugenics’ Symposium as an extended Artifact for Progressive-era Memes

Although the *Eugenics* Symposium remains a fascinating artifact of the heyday and initial decline of American eugenics, its popular appeal was nonetheless insufficient to be sustainable as the Great Depression deepened and the socio-economic situation of the readership continued to deteriorate, let alone necessary to grow the subscriber base to reach mass-market magazine status. This last issue (February 1931) also contained the editorial eulogy for *Eugenics*, and hailed the new arrival to the AES family: *People* magazine (p. 67). The AES hoped the new format would be the winning formula for popular eugenics evangelization in the 1930s, and the new magazine retained the symposium. (See the last major section of Chapter IV for details on the end of the journal and the lone issue of *People*.)



EUGENICS AND THE CHURCH

BY KENNETH C. MACARTHUR

As introduced in “The Birthday Number” and further described in the Popular Education section of Chapter IV, the cooperation of the Protestant clergy in the growth and popularization of the eugenics movement was seen as critically important. These “eugenic disciples” (Sherbon, 1928) were key to the evangelization of the biological and sociological gospels of the secular science that Francis Galton had established and which so many American apostles had translated into the New World edition.²⁴⁰ The first real exposition in *Eugenics* of the importance of religion to the American eugenics movement was heralded in the December 1928 “Religious Number,” where the educational leadership and cooperation of the clergy was front and centre. Figure A4-2-1a on page 142 of the Appendix IV image file is an excerpt of the table of contents for this “most important” (p. 33) issue.

Having already covered “The Preachers Part” in the section on Florence Sherbon and Popular Education, let us move-on to the follow-up article by Kenneth MacArthur. It may be wise to first introduce this committed clergyman who would spearhead the AES’s day-to-day efforts for eugenics evangelization among the Protestant faithful of America. This personal introduction begins with MacArthur’s brief entry in the “*Eugenics Who’s Who*” for the Religious Number (p. 41), as reproduced in Figure A4-2-1b on page 142 of the image file for Appendix IV.

A much more detailed résumé and extended introduction was later offered, in the form of a full-page spread (p. 149) in the News and Notes section of the April 1930 “Education” issue, as shown in its entirety in Figure 2-1c on page 143 of the image file. Reverend MacArthur’s eugenic and clerical pedigrees rival those oft-cited exemplars of the gifted sons of eminent Protestant ministers from Galton’s proto-eugenical musings in the 1860s, as well as similar exemplars in *Eugenics*. These hereditary models for emulation were further popularized in the AES Popular Education Committee’s group-study packets and exposition materials, as presented in that section of Chapter IV. It should come as no surprise that MacArthur’s academic credentials included distinguished undergraduate and graduate-level residencies at one of the premier Ivy League schools (Harvard), before his eventual divinity degree at Union Theological Seminary in 1908, also with high honors. This was before the

²⁴⁰ I wish to acknowledge the exemplary work of historian Christine Rosen, in her *Preaching Eugenics: Religious Leaders and the American Eugenics Movement* (2004). This full-length study of the religious involvement in, and opposition to eugenics in America covers the full gamut of what will be considered in this section in greater detail, including the formal associations, eugenic sermons and other activities of both AES insiders and their numerous allies (as well as the enemies) of eugenics, among the American clergy.

introduction of formal eugenics education at the college level, but his student days overlapped with the tenure of such pioneering Harvard biology professors as W. E. Castle, C. B. Davenport and W. M. East (see Eugenical Institutions section in Chapter IV) who were already including eugenics in their genetics and other biology courses by that time.

In addition, MacArthur's fitter-family won a prize and he won individual honors at one of the early editions (1925) of the Fitter Family contests. His *Eugenics* debut as a eugenic sermonizer to the WASP masses was his top-three winning entry in the first AES Eugenic Sermon contest of 1927 (Rosen, 2004), upon which his December 1928 feature article was based. His introduction in *News and Notes* concluded with a thumbnail sketch projecting MacArthur's duties as the newly appointed secretary. MacArthur's addition to the staff of the AES and *Eugenics* in April 1930 also served as yet another sign of the prophesied rosy future for both, even six months into the Great Depression.

MacArthur's introduction as secretary to the readers of *Eugenics* began with the bold words "THE ASSUMPTION" (p. 149). In this context, the use of "The Assumption" may be mere coincidence, unrelated to one of the major memetic differences between WASP and Catholic theological paradigms: that being the differentiation in status between St. Mary, human mother of Jesus who lived and died almost 2000-years ago [Protestant]; versus Mary, Most Blessed Queen of Heaven and eternal Intercessor to God for any suitably pious Catholic. It may also be symbolic of an even larger ideological schism of the modern-era. That being the Utopian possibility of establishing a new Garden of Eden, or paradise on earth, through the ardent application of the applied science and progressive philosophy of eugenics, seed of the new *Tree of [Eugenics] Knowledge* [WASP]; rather than the Catholic belief that man may reach paradise only through the willful intervention of God and the intercessions of Mary through praying Her Rosary. See Figure A4-2-2a on page 144 of the image file for one memetic interpretation of the secular *Eugenics Tree* as a modern WASP *Tree of Knowledge* to guide humanity to a modern, but moralistic social-scientific Kingdom of Heaven on Earth.

This reinterpretation of the *Tree of Eugenics* as a new *Tree of Knowledge* for progressive-era America was based on careful reading of the feature articles, symposium, and editorial for the Religious Number. The reader is encouraged to keep this interpretation and analysis in mind while reading the text of the excerpted pieces from "the most important issue of *Eugenics* yet published" (p. 33), as it was appraised in the opening line of the Editorial for this issue (see later in this section). Not only were similar sentiments expressed by the original authors, but this reinterpretation is also validated by some almost word-for-word expressions.

Reverend MacArthur's "Eugenics and the Church" in the December 1928 Religious Number

Kenneth MacArthur made his *Eugenics*' debut in the first Religious Number (pp. 6-9), in an article adapted from his winning 1927 eugenic sermon. The article's content is quite typical of his later one or two-page regular department columns, so it also serves as a rough sketch of the memes and themes that would later be further expanded. It is also remarkable how many of the 'roots' of the eugenics tree MacArthur draws upon in his debut article, and how well his musings agree with the morphology and mythology of the tree as conceived by the Galton Society. This memetic mutualism may partially explain his "Assumption" as Secretary to the AES Committee for Cooperation with the Clergy. See the opening excerpt of MacArthur's debut article in Figure A4-2-2b on page 145 of the image file.

Rather than diving straight into the eugenics pool from his pulpit, MacArthur instead began by reminding the faithful of the "political power possessed by American Protestantism" (p. 6), in that other great church-based social-movement that bore fruit in the 1920s, culminating in the "Eighteenth Amendment and the Volstead Act." Prohibition, like the birth-control movement brought many 'Christian Soldier-Sister' allies from the Protestant churches. Again Catholics, especially Italians and the Irish, were not quite so in tune with their more Puritanical cousins-in-Christ. The battle against demon-rum conscripted numerous volunteers from the WASP Clergy and from women's auxiliaries and Temperance Unions to the Eugenics recruitment centers. MacArthur used this exemplar of what has been already accomplished to bolster the flock's faith in what was possible, before embarking on the long-intergenerational journey to a new Promised Land, much like a modern-day Moses shepherding the Israelites out of Egypt; with the eventual promise of seeing "the social ideal of the Kingdom of God on earth" (p. 6). And like the most favoured tribes of Israel of the Old Testament, it is the race and the 'fitter families of the future' that is important, not the inherent human-rights or pseudo-equality of unfit or inferior individuals based on radical New Testament interpretations:

This structure of the Temple of God among men must be built from of the best possible human material. From this City of God are to be excluded 'the fearful and the unbelieving,' and the abominable and murderers, and whore-mongers and sorcerers and idolaters and all liars. (p. 6)

Thus eugenics offered to cure society "in a few generations" of all the evils and social pestilences that Christ's many miracles failed to eradicate and that centuries of Christian charity failed to quash. In fact the modern Church may have even made things worse by the misguided extension of charity to "the devil's poor" (Ross, 1920 – See the previous section on the *Eugenics*' Symposium in this issue (Figure A4-1-4b, c), for the panel discussion on this central religious tenet by four Occidental wise-men of divergent faiths).

While our postmodern vantage-point makes it easy to chuckle at MacArthur's naïve prophesy that the cause of eugenic reform will be easier than drying-out people's age-old taste for alcohol, it is symbolic of the fervor and eternal optimism that pious AES insiders like MacArthur, Professor Sherbon and Reverend Henry S. Huntington brought to unifying religion with organized eugenics.

As seen in the last paragraph of Figure A4-2-2b, MacArthur offered the twin eugenic promises of banning the unfit and unworthy, while nurturing and enabling the fit and faithful to greater prolificacy, "to recruit the citizenry of the commonwealth of Christ among men" (p. 7). The fulfillment of these promises would also ban the age-old evils that Judeo-Christian religions have sought to conquer since the time of Abraham and Noah. Now, with Christian Eugenics, progressive Churchmen foresaw that the ultimate end of chronic poverty was in sight. But this positive end could only be achieved if the misguided charity of unrestricted almsgiving to the 'devil's poor' could be replaced with the true Christian charity of preventing those incapable of caring for themselves from reproducing (negative eugenics). Instead, we should invest our God-given 'Talents' in the sure promise of the eugenically and morally worthy (positive eugenics). This wise investment would pay-off four, or five or even tenfold, just as the wise and faithful servant in the Bible invested the Talents entrusted to him by his Master, so that they multiplied manifold.

Just as Florence Sherbon had done in "The Preacher's Part" (See Popular Education section in Chapter IV) and especially in her final section on the "Preacher's Job," MacArthur turned to the Preacher's part in inculcating their flocks with the wisdom and righteousness of applied eugenics, just as the right-most 'rootlet' of Religion fed the main root of Applied Eugenics (Figure A4-2-2a), in the new Tree of Knowledge. Figure A4-2-2c on page 146 of the image file explains the educational role of the preacher, as foreseen by Reverend MacArthur.

Next, MacArthur declared "War on Disease" (p. 7), but not in the way of a Louis Pasteur curing the congenitally unfit (along with the worthy) through the invention of miraculous vaccines to God's great scourges, but more in the vein of Reagan's "War on Drugs" or Bush-Cheney's "War on Terror," as aided and abetted by the neo-Conservative Moral Majority. For this great intergenerational mission, "the church needs the help of the eugenicist":

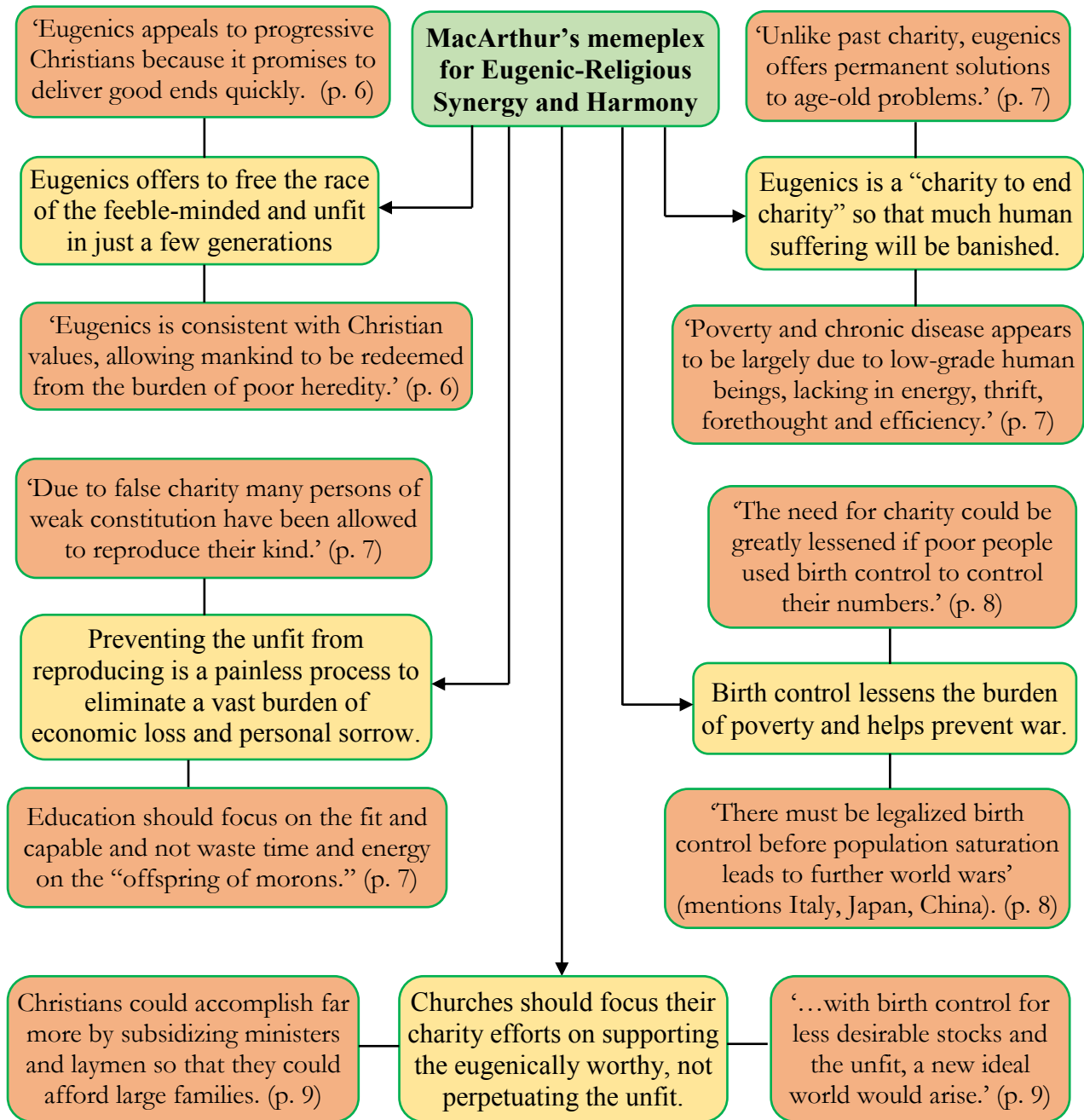
From the time of Jesus, Christians have felt a responsibility for the sick and infirm and have developed a vast machinery of institutions for the care of the physically unfortunate. Doubtless much disease is due to unsanitary environment; yet even in good surroundings many persons succumb because they have inherited weak constitutions. If persons of such type are educated to realize their duty to the race [in not] bringing weaklings into the world, we shall gradually by a painless process eliminate a vast burden of economic and of personal sorrow dues to disease. (p. 7)

After reaffirming American Protestantism's commitment to stamping-out the destructive 'race-poison' of alcohol, MacArthur turned to that other great eugenic scourge, War, and addressed the role of the churchman in the pacifist movement that had gained strength in America after World War I. Here, MacArthur hailed eugenics as bolstering the pacifist cause with science and hereditary truth. He cautioned that modern war had become a dysgenic force that culled the best and brightest, while leaving the dregs of male society to produce the next generation; the opposite to what eugenicists wisely counceled, as expressed and illustrated in Figure A4-2-2d on page 147 of the image file.

In his concluding paragraphs, MacArthur discussed the survival of churches in the same light as racial survival. Like the choice confronting America in the 19th Century: whether to rapidly grow through immigration from non-Nordic regions of Europe, or breed more prolifically from within the population of 'native-Americans' (code-word for WASPs); the Protestant churches in America were encouraged to re-examine their growth strategies. He frowned on relying on evangelizing immigrants from America's increasingly heterogeneous melting-pot, who are the Missionary's feedstock analogue to the morons and feeble-minded that MacArthur considered as being barely educable. Instead, he looked to a rational system of subsidizing the proliferation of eugenically promising "ministers and laymen," as already vindicated by "good results of this policy in the case of Congregational foreign missionaries" (p. 9). Not only would this growth from within be more efficient than casting a wide net and hauling in many 'trash fish' along with the eugenically valuable trophies; it would combat the "present marked tendency for religious families to die out;" especially along the Northeastern Seaboard that was being swamped by schools of strange foreign fish, choking-out the native varieties. Thus, science and religion could bolster each other's bottom-lines, and prevent the same corruption of WASP ideals in America's 'native-Churches' as was occurring in the public schools and crowded cities of the Northeast. Figure A4-2-2c on page 146 of the image file shows Reverend MacArthur's closing argument for his eugenical sermon from December 1928. A partial meme-map for MacArthur's Eugenics and the Church article is shown on the next page as Figure A4-2-2e.

This section will return again to MacArthur and his evangelical service to *Eugenics*, but only after considering some of the other religious-themed pieces in this special issue. Since the general eugenical unsoundness of unreformed Christian charity was a meme running through MacArthur's debut, the *Eugenics*' Symposium from the same Religion Number of December 1928 will supply some additional perspective on this central and fundamentally divisive issue.

Meme-map for Reverend MacArthur's "Eugenics and the Church" Debut Article



Color Code: **Meme clusters** (Green borders for Reform eugenics) **Memes or small clusters**

Figure A4-2-2e: Partial meme-map of the eugenic memes and religious themes expressed in Kenneth MacArthur's debut article, based on his prize winning sermon for the AES Eugenic Sermon contest. Note the bottom cluster showing congruence with the Symposium topic of December 1930 in terms of subsidizing eugenically worthy Ministers and Churchmen, rather than indiscriminate charity for the unworthy poor, which merely perpetuates the social evils of mankind to future generations.

Is Christian Morality Over-Charitable to the Unfit?

As discussed in the four educationally-themed iterations of the *Eugenics*' Symposium covered in the previous section of this appendix; this regular feature often posed controversial questions connected to religious dogma and its derived secular taboos. This month's issue was no exception, focusing on the long-term eugenic or dysgenic effects of Christian charity. Featuring an august panel composed of "four religious leaders" of different denominations, including one arch-critic of eugenics who made a couple of appearances over the production run of the journal. It also included a current "professor of Christian ethics" from MacArthur's *Alma Mater* seminary-school. See the excerpted initial paragraphs of this panel discussion in Figure A4-2-2f on page 147 of the image file and the bio-briefs of the participants from the *Eugenics*' Who's Who in Figure 2-2g on page 148.

As a novice scholar of eugenics, I was puzzled by the cooperation of Jewish theologians and academics with racialists like Madison Grant or H.F. Osborn who formed the dominant brain-trust of the AES. This confusion was not dissipated until reading Spiro's excellent biography of Madison Grant: *Defending the Master Race: Conservation, Eugenics, and the legacy of Madison Grant* (2009).²⁴¹ On the other hand, Roman Catholic opposition to eugenics and its religious penetrations actually hardened during this time, particularly once the Pope pronounced artificial contraception for Catholics anathema in the infamous Papal Encyclical of 1930 (see the section on the End of *Eugenics/People Magazine* in Chapter IV for treatment by MacArthur and Roswell Johnson).

Before turning to the last religious-themed feature article from the Religious Number, this presentation will now consider the one-page editorial column for this issue (p. 33). As usual, it is unsigned, so that its author cannot be positively identified. It sought to prove eugenics "is an ally, not a foe of religion." In this early-vintage pre-Depression issue, when the AES budget was at its height, it proudly proclaims "The Religious Number will circulate among almost a thousand of the most influential clergymen of America," and offers "an invitation to cooperation" (p. 33). At the newsstand price of "30-cents the copy" plus postage, this represents a considerable investment, with no guarantee of a pay-out in kind; but in "the long progression toward a eugenic Utopia," it is perhaps an

²⁴¹ Spiro noted that the poor Eastern Jews from Poland and Russia (which the Galton Society feared were spreading Bolshevism into America) that were perennially crowding into New York City's Lower East-Side (also known then as 'Jewtown'), were almost as despised by the already assimilated and often wealthy German and Sephardic Jews (like David DeSola Pool), as by the anti-Semitic racialists in Osborn and Grant's inner-circle (See especially pp. 95-97, 196-202, 220-227). The participation of Jewish members increased after *Eugenics* folded and the Nordacist-racist influence in the movement declined, especially after the deaths of Grant, Osborn, Davenport and Laughlin from 1935-1943. The post-WW II AES under the direction of Frederick H. Osborn (H.F. Osborn's nephew) had significantly more Jewish involvement and representation in the leadership, but it was no longer nearly so interested in religious cooperation with the clergy – Protestant or Jewish.

astute means of capturing some low-hanging fruit from an already largely sympathetic and racially homogenous demographic that was too eugenically rich to ignore. See the editorial in its entirety in Figure A4-2-2h on page 149 of the image file.

In that single page we have religious, political, economic, demographic and ideological arguments for the virtuous alliance and synergistic cooperation between religious and eugenic forces in Progressive America. It praises the true Christian charity and evangelic possibilities advocated by the eugenics movement, as heralded by the featured eugenic disciples: Sherbon, MacArthur, Osgood, the Symposium contributors (minus the Papist Ryan), who “Together... form an impregnable battalion of proof” (p. 33). The editorial does not specifically mention Henry S. Huntington (see his excerpted bio-brief in Figure A4-2-2i on page 148 of the image file) or his article; leading me to believe he is the author. It calls for a fanfare of eugenic propaganda, “trumpeted” so that never again will “informed clergymen... suspect eugenics and see in it sulphurous negations of their several beliefs.” Instead, it hopes to convert these “sentinels at the gates which lead to the minds of the masses of citizens” to the eugenics cause, an evangelical trope to which several future issues would also be dedicated.

As a personal aside here, while considering the religious language, imagery and rhetoric embedded in the American eugenics movement and its popular education functions, it was my experience to have one of my first journal article submissions on eugenics rejected. One of the reviewers reacted negatively to my use of religious terminology, specifically mentioning “eugenic disciples” and “eugenic evangelization” as somehow being inflammatory or inappropriate. This was a few years before reading *Eugenics*, or the eugenic sermons published in the journal or in Rosen’s *Preaching Eugenics* (2004). I now feel completely vindicated on that score, although the editor’s decision to pass on my novice manuscript in such an august publication was surely the right choice.

Where do Ministers Come From?

Having considered all the other religious-themed articles and features in this issue, it is now time to consider the final feature article in this “most important” issue, also by Henry S. Huntington, answering the important spiritual-demographic question: “Where Do Ministers Come From?” (pp. 22-28). Although it has become a cliché in many vocations to say ‘A _____ is born, they’re not made,’ this was one of the central questions explored in Huntington’s article, and it goes to the heart of the hereditarian-environmentalist divide. It was revealing to note that Huntington found some survey respondents had a moral objection to one or the other notion, reflecting the same ideological divide found in the larger, more heterogeneous population.

As explained in the long opening paragraph, Huntington's article was based on an AES survey of prominent American clerics, 104 of which responded to the survey. So like his younger brother Ellsworth, professor of geography at Yale, Henry engaged in a demographic study of those survey responses, in order to determine any dominant forces and statistical patterns in the religious formation and vocational choice of these clergymen. The text is a rich data source, perhaps even more important today in recovering the lost connections between American Protestantism and organized eugenics. It would be fascinating to see as to whether the patterns noted among the survey respondents continued into the following generations, or if they were plagued by the same 'race' or 'religious-suicide' that so troubled the Nativists of the eugenics movement, as referred to in MacArthur's "Eugenics and the Church" article.

Much of the article consists of long lists of names, sons of ministers, sons of lay preachers and deacons, sons of church officers, etc. Aside from the obsolete WASP Christian-names, like Abram, Boothe, Emerson, Nehemiah, Rockwell, etc., the lists include denominations that either became extinct or merged into larger bodies to survive the lean Depression years and the cooling of religious fervor in the post-World War II years; before the latter-day fundamentalist revival in the Bible Belt and new allied congregations (the Moral Majority and Christian-Right) that were foundational to the 'Reagan Revolution' and the rise of neo-Conservatism in the last decades of the 20th Century. While they may have inherited the rampant social-Darwinism of their Progressive-era forebears, their enthusiasm for eugenics and hereditarian paradigms seems to have been purged in the interim.

After these numerous lists, Huntington eventually turned to the fundamental question of "whether heredity or environment explains why these men went into the ministry" (p. 25). Huntington laments that the results are inconclusive, and offers the possibility that if the survey sample had included "the records of adopted children in the same families we should learn much on this point." He also regrets not explicitly asking for information as to any clerical grandparents or earlier ancestors. But he rejoices that some survey respondents provided this information without being specifically asked, and others commented on the nature-nurture question voluntarily, offering these responses as reproduced in Figure A4-2-2k on page 150 of the image file.

'Social Heredity' as a Memetic Precursor for a Horizontally Inherited Worldview?

Rather than designating either biological heredity or environment dominant, Huntington invented a hybrid factor, that he called "Social Heredity" (p. 25). He enlisted this blended causal factor to explain the vocational call to the ministry, without offending the sensibility of any of his named respondents.

See the examples included in Figures A4-2-2l and A4-2-2m on pages 150 and 151 of the image file; which are nonetheless revealing of the willingness to bend the strict-hereditarian ‘scientific’ laws of heredity, in order to recruit new leaders to the cause, and thus, hopefully also gain access to the hearts and minds of their congregations.

One respondent of note seemed to exemplify the strict-hereditarian worldview on this question, or can even be seen to offer evidence of a possible ‘Preacher unit-character.’ Huntington wrote this multigenerational testimonial that also had alternative “Social Heredity” analogues (Figure 2-2l):

John Timothy Stone reported six successive generations in the ministry on his father’s side, and four on his mother’s. He wrote: “I can truthfully state all information of the generations of minister’s lives which was presented me as an incentive for the ministry was the one thing which prompted me, when a boy, to want to do something else. However, heredity seems to have conquered. I think my feeling towards the ministry was one of a natural aversion because it was taken for granted that I would be a minister rather than from any influence of my parents or loved ones for whom I had the highest regard, and for the office my father held.” (p. 27, 28)

Huntington included two full pages of testimonials by respondents, offered as additional evidence of “Social Heredity;” one of which is presented in Figure A42-2m on page 151 of the image file. Huntington’s study is also notable for its connection to the subsequent article on two “Eugenical Cases in Point,” by Arthur Estabrook of the Eugenics Record Office (see section on Eugenical Institutions). This was a short ethnographic article contrasting “an Aristogenic Family” (The Merrills, p. 29, 30) with a “Clan of Inadequates” (The “Cassos” a pseudonym for a poor family of recent Italian immigrants, p. 30, 31). These ethnographic family-studies were a staple throughout the production run of *Eugenics*, harkening back to Goddard’s *The Kallikaks* (1912), or even *The Jukes* (Dugdale, 1877) of proto-eugenic origin. It is remarkable however, that while “Social Heredity” could be safely postulated for eminent WASP “aristogenic” scions, or the worthy sons of ministers who followed in their father’s footsteps, the crushing effect of poor heredity was always assumed to be the primary causative factor in the cases of the “Cassos,” the “D’Isogenics,” or “The Bunglers.” The squalid environments these families inhabited were seen as symptoms of physical-moral degeneracy, feeble-mindedness and the effects of rampant race-poisons, rather than a root cause of their situation.

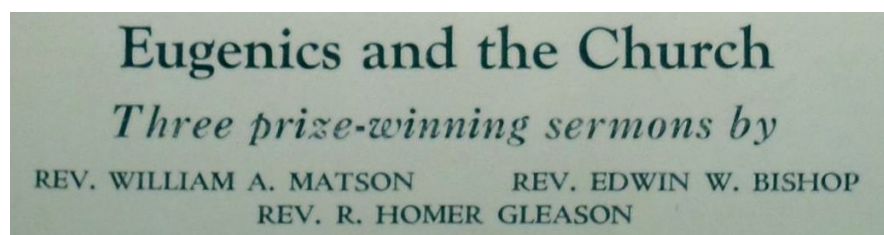
Thus, the explanatory paradigms were rather flexible and subordinated to the social-moral utility of the overarching narratives, leaving plenty of wiggle-room to paint a picture that conformed to the memetic map and political agenda of the AES and its popular publications. While the great bulk of social-scientists today have switched their memetic allegiance to the environmentalist (or even neo-Lamarckian) school, there are others who remained loyal to their 1928 analogues (such as Arthur

Jensen, Herrnstein and Murray, J. Phillip Rushton). There are even more naïve hereditarian adherents among the lay public, who may not be versed in genetics or the social-scientific debates of the Interwar years, but have been influenced by the legacy of racial eugenics and ‘scientific racism.’

In addition to the long textual lists and responses, Huntington offered a statistical “tabulation of replies to the questionnaire,” as shown below in Figure A4-2-2n on page 152 of the image file. While Henry Huntington’s quantitative research and statistical skills would never be surpassed in future Religious issues and features, subsequent iterations would follow the general template established by this first Religious Number. Later additions to this genre would also branch-out from the Protestant sects in America, to consider Catholics, Jews, and even the ‘Parsis of India.’ Although none of these minority sects would be nearly as faithful disciples of eugenics as the established WASP churches profiled in this first issue, it is fascinating how the memes and clusters embedded in organized eugenics interact with the meme clusters embedded in any organized religion (either mutually or antagonistically), especially for those so decentralized and differentiated as American Protestantism. Historians may see analogues with general or specific developments in Northwest Europe after the schism from Catholicism, and into the numerous Protestant enclaves.

Eugenical Sermons: The Sermon Number of August 1929

The following sections will examine the “Sermon Number” of August 1929, the second “Religious Number” of February 1930, and conclude with a look at Kenneth MacArthur’s “Eugenics and the Church” regular department from its debut in July 1930 to its swan-song in the final *Eugenics* issue of February 1931.



The August 1929 Sermon Number continued the eugenic missionary work begun in the December 1928 Religious Number. Three prize-winning sermons are featured; all from evangelical Protestant ministers (see the *Who's Who* Bio-briefs in Figure A4-2-3b on page 153 of the image file). The first two have provocative biological or racial-hygiene titles, with equally provocative content, to be explored shortly. For initial consideration, the table of contents for this special issue is reproduced

in Figure A4-2-3a on page 153 of the image file. But before turning to the sermons themselves, this issue's Editorial (Figure A4-2-3c on page 154 of the image file) explained the entry and judging process to progressive-era readers and provides revealing contextual clues for scholars today (p. 34).

This crop of winners was from the second running of the AES Sermon contest, and it attracted more entries than the previous year. The free mailings of the journal to clergymen and the community outreach programs at the national and local levels were yielding fruit in the form of eugenical awareness and allegiance to the cause. While the prize-money for the top three entries would hardly overwhelm any minister in a wealthy suburban parish today; at that time, the average protestant minister's salary was less than \$2000 a year (as reported in MacArthur's "Eugenics and the Church" column in August 1930, p. 318). In that light, a \$500 first-prize takes on a new glow. Dozens of entries were received, including a couple by progressive Jewish Rabbis. By some mysterious internal process, these great multitudes were whittled down to a manageable number for official judging. This judging seems to have followed a standard format, with a clergyman judging the entries for their "homiletic and persuasive qualities" (p. 34), an English professor judging the literary merits, and a member of the ERO staff judging the sermon's eugenic promise. It was interesting to see that this year, Charles Davenport, himself the son of a fiery Presbyterian lay-preacher, passed the judges robe to his right-hand man, Dr. Harry Laughlin. Laughlin was listed here as being "of the Carnegie Institute of Washington," the main funding agency of the ERO and the rest of Davenport's scientific empire at Cold Spring Harbor, rather than as Superintendent of the ERO.

During my research trip to the American Philosophical Society's archives in Philadelphia (where I first encountered *Eugenics*), I came across Davenport's score-card for the previous year's sermon contest, complete with rough scoring hash-marks and summative evaluations. Davenport had previously taught biology at Harvard, not to mention supervising many graduate students doing their doctoral research there or at Cold Spring Harbor; so marking papers like this would have been old hat (Witkowski & Inglis, 2008). Laughlin too had previously taught biology at the high school level and at an agricultural college, and had no doubt marked undergraduate student papers while engaged in his doctoral residency at Princeton, perhaps even on the subject of eugenics. I found it curious that "the eugenical content" counted for only 30-percent, while the literary and homiletic quality (are these not largely the same?), formed the great bulk of the scoring rubric's weighting. As listed in the editorial, the other judges were no academic slouches either, and although neither was an AES insider, their credentials do add prestige to the contest.

The winning entrants included students at prestigious universities, including Berlin and King's College, both leaders in eugenic research at this time; though it is doubtful any of these clergymen would have been involved in that research. But they certainly could have been evangelized into the

movement through public lectures, or in student groups centrally or peripherally associated with eugenics. The archives at the APS in Philadelphia hold dozens of sermons from the three years the contest ran, and many more that were not published in *Eugenics* are excerpted or reprinted in Rosen's *Preaching Eugenics* (2004). Of all the essays, the one that caught my attention was "The Eugenic Evangel," for its title if nothing else; but it was only ranked 7th, and thus not even worthy of an honorable mention in the journal editorial. The interested reader is highly encouraged to consult Rosen's admirable presentation and analysis, which is far above my level of religious and sociological acumen. The three exemplars considered here are fascinating in and of themselves, but when considered from the local prevailing racial or demographic conditions, they are even more significant for their ability to adapt standard eugenic doctrine to a variety of targeted racial groups, social evils and perceived threats to future progress.

Methodist Matson Warns of Outside Racial Threats in Southern California

First, from Methodist minister Matson in Southern California, we have the dual agricultural and biblical themed: "A Chosen Seed for a Chosen People" (pp. 3-7), as excerpted in Figure A4-2-3d on page 155 of the image file, and continued on the following pages. Matson's sermon illustrated the typical eugenic dogma of the Interwar period, profusely hereditarian and agrarian, with little of the "reform eugenics" as later formulated by Florence Sherbon in her Popular Education series. Instead, we have the *Being Well Born* (1916, with many subsequent editions and revisions) 'civic biology' of Wisconsin's Michael F. Guyer (see section on Eugenic Institutions), and its early analogues.

Further evidence of this decadal popular dissemination gap (as discussed by Sherbon in some of her concessions to critics like H.S. Jennings and Raymond Pearl) is provided on the following page, when Matson makes use of two foundational studies of "White Trash" (Kline, 2002): the *Kallikaks* of Henry Goddard, and the *Jukes* of Richard Dugdale (1877), including a reference to "Margaret, the mother of criminals" (p. 4). And, as criticized by Jennings, Pearl, *et al*, there were regular references to "good and bad blood" and other bits of obsolete eugenic fuzziness pervading these sermons. Matson also included the standard references to the old-stock farmers and clergymen in *Who's Who in America*, as well as the Jonathon Edwards-Elizabeth Tuthill family that formed the eugenic-side of the Kallikak Family (unbeknownst to most people until much later – see Smith, 1985). This was all framed by biblical quotations and agricultural truisms that would have been second-nature to the congregation in this bustling California rail-road town serving the orchard owners and farmers of the fertile San Joaquin Valley.

Matson then turned to the question of “The Seed” and explored the fundamental question of whether or not *American Intelligence* (1923), and more specifically IQs in California, were progressing as evolution predicted, or degenerating due to rampant immigration, race-mixing, or the effects of various race-poisons and modern moral laxities. He turned to the Army mental tests of WW I, the follow-up studies of Nordic genius by Lewis Terman at Stanford, and local studies in area schools as evidence for grave concern, as excerpted in Figure A4-2-3e on page 156 of the image file.

From his opening page, Matson puts a hereditarian and racial spin on these “startling results,” linking a drop in inherited biological capacity to “crime, pauperism and insanity,” and a host of other social evils and failures of democracy to function “in our cities” (p. 5). He celebrated the fine eugenic and religious selection experienced by early WASP settlers in America as being “responsible for the unexcelled level of our early American intelligence. God sifted a nation that he might send choice seed into this wilderness” (p. 5) as one of the early New England governors said. “That seed resulted in a nation of choice men and women. As the origins of the American mind may be traced, so also may we discover the seeds and weeds of decay around us today” (p. 5). Even before reading these words, readers were confronted with the first and only picture in the article; showing one of the main sources of “the weeds” (Mexican Amerinds) threatening the chosen WASP seed, as alluded to by Matson and reproduced in Figure A4-2-3f on page 156 of the image file.

If the picture failed to convince, Matson continued with extensive statistical evidence, unusual for the *Eugenics*’ sermons in general; but quite congruent with the Army Mental tests of WW I, and with C. M. Goethe’s Nordacist rankings of the various old-stock Americans, the ‘new immigrants’ and the especially prolific Mexican interlopers of recent times: threatening disease, crime, the future collapse of American democracy and WASP racial-religious suicide, unless Immigration Restriction was also extended to Mexico. Figure A4-2-3g on page 157 of the image file shows Matson’s statistical attack and fluent agricultural-racial-religious contextualization for the benefit of his rural congregation.

Thus, although the antagonists of eugenic-racial progress varied from locale to locale, the threats were essentially the same. The long-term implications for the protagonist old-stock WASP elite of yesteryear were everywhere bleak, unless the faithful could be persuaded to join the racial-religious *crusade* to boost their fecundity to former levels of American glory, and extend their immigration restriction *Jihad* to the nations and especially to non-WASP races of the Western Hemisphere.²⁴²

²⁴² The Deep South analogue of Matson’s sermon, and for especially C. W. Goethe’s article can be found in the work of W.A. Plecker, chief registrar for the State of Virginia, whose alarmist feature article “Race Mixture and the Next Census” in the March 1929 “Census Number” (v2n3, 3-7) highlighted the dangers to the White South by the prolific Negro, American Indian, and their “mongrelizing” racial mixtures with each other and various non-Anglo Saxon degenerates, in an attempt to circumvent Virginia’s strict race-purity laws. Plecker’s racial crusade in Virginia lasted until well after WW II. See Smith (1993) for the extended tragedy of *The Eugenic Assault on America*.

Matson added further statistics lamenting the local decline of old-stock Nordics and related these to national estimates conducted “several years ago” by Davenport “that at the present rate 1,000 Harvard graduates would have only 50 descendants in two-hundred years, while on the same basis, 1,000 Roumanians from the nearby city of Boston would have 100,000 descendants” (p. 6). He related the sobering results of his “study of this parish made for the American Eugenics Society” and contrasted the stark reality of declining WASP families in the parish with the seemingly forgotten “first command” of biblical survival, and its dire implications for Nordics and American democracy, as revealed by E.A. Ross (1901), then popularized and politicized by Teddy Roosevelt (Dyer, 1980), and theorized by Madison Grant (1916); as shown in Figure A4-2-3g on page 157 of the image file.

Echoing Kenneth MacArthur in his first-edition eugenic sermon, Matson also lamented the dysgenic effects of the American Civil and First World Wars, quoting Stanford’s David Starr Jordan and his study of the denizens of the squalid slums of London replacing the brave Nordics lost in the pyrrhic victories of Imperial conquests and the constant drain of violent Continental entanglements with the other Great Powers of Europe. Like Madison Grant in *Passing*, Matson compared this modern Imperial decline with the great classical civilizations of Greece and Rome, who “failed to maintain their inheritance, and are gone,” and he warned that there is “no assurance that we shall not follow in their train” (p. 7). Matson enumerated several ominous parallels between these past golden ages of antiquity with America in 1929:

In the midst of education and wealth they forgot the duty of parenthood. So have we. Their labor was done by imported peoples. So is ours. War took their best and left their worst. It has done the same for us. In addition we possess the two-edged sword of birth control. It might be employed in the production of a better species; it is actually being used to commit race suicide. The law of the wild is the survival of the fittest; but the result of civilization seems to be the survival of the unfit, and we are reaping a harvest of citizens who can maintain neither a free government nor a free lunch. (p. 7)

Finally, in the concluding paragraph of his sobering sermon, Matson considered what should be done to avoid the prophetic doom of race-suicide and national decline. The ultimate answer was to submit to the promised remedies of eugenics, as education and medicine had done for the euthenic advances of the previous Century. In addition to a commitment to the long-term practice of positive eugenics on the chosen seed, racial betterment would also require concerted, drastic action to suppress the weeds and cultivate the good fruits, as detailed in Figure A4-2-3h on page 147 of the image file.

The meme-map in Figure A4-2-3i below illustrates some key hereditarian and Social-Darwinism memes and clusters in Matson’s sermon. This meme-map does not show the overt Nordicism evident in the later sections of Matson’s sermon, where he praises the old-stock Protestant Nordics of early America, and lamented they are no longer reproducing themselves in sufficient numbers. He also decried the inferior heredity and excessive fecundity of the ‘new immigrants’ from southern or eastern Europe as well as the Negroes of the old South and the new Mexican interlopers who threaten racial degeneration in California. These more explicitly Nordicist memes are summarized in the second meme-map as Figure A4-2-3j, on the following page.

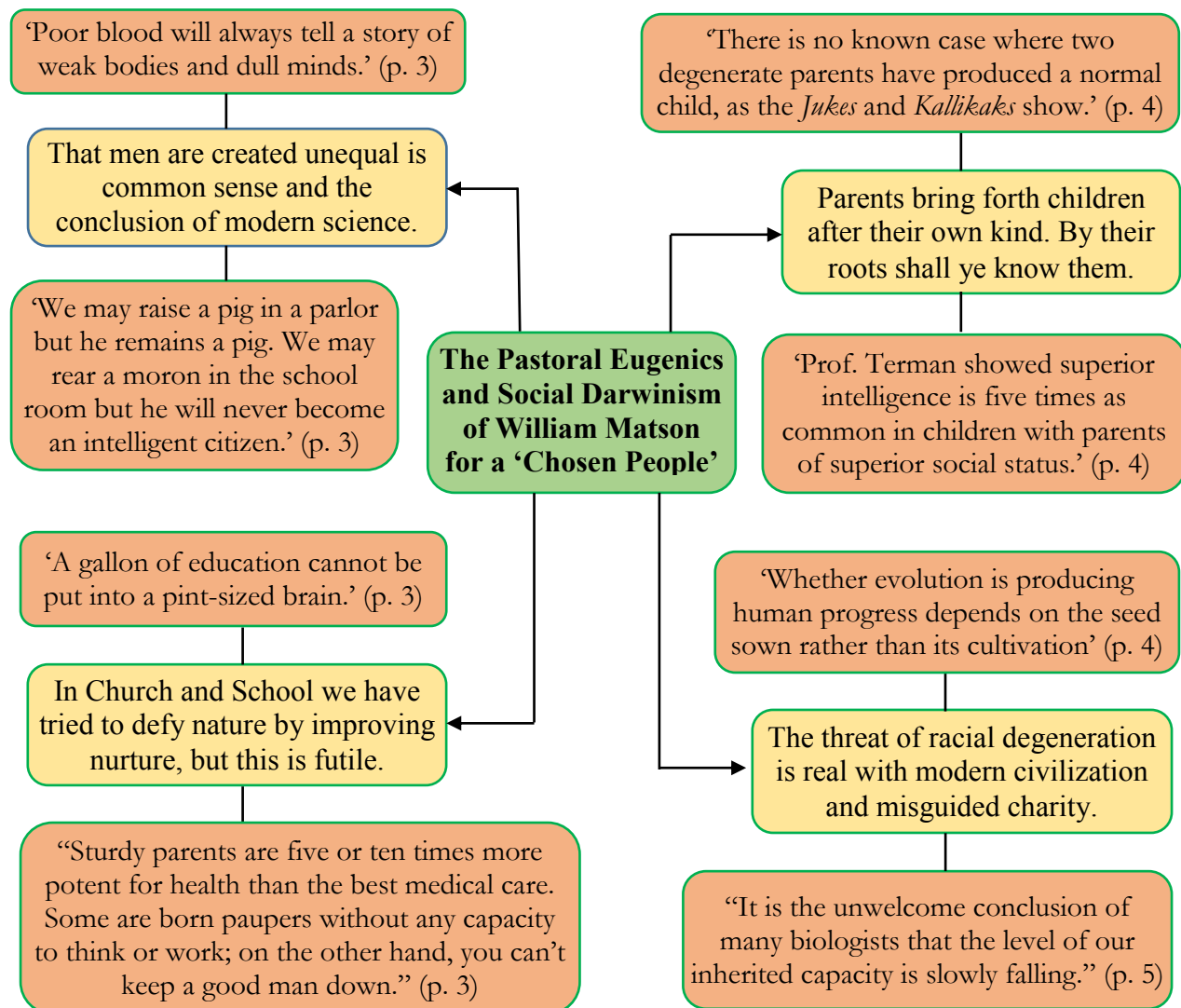


Figure A4-2-3i: Partial meme-map of the pastoral-themed eugenics and Social Darwinism of Reverend William Matson in his award-winning sermon in the August 1929 Sermon Number (pp. 3-5).

Meme-map of some of the more overtly Nordacist Elements of Matson's Sermon

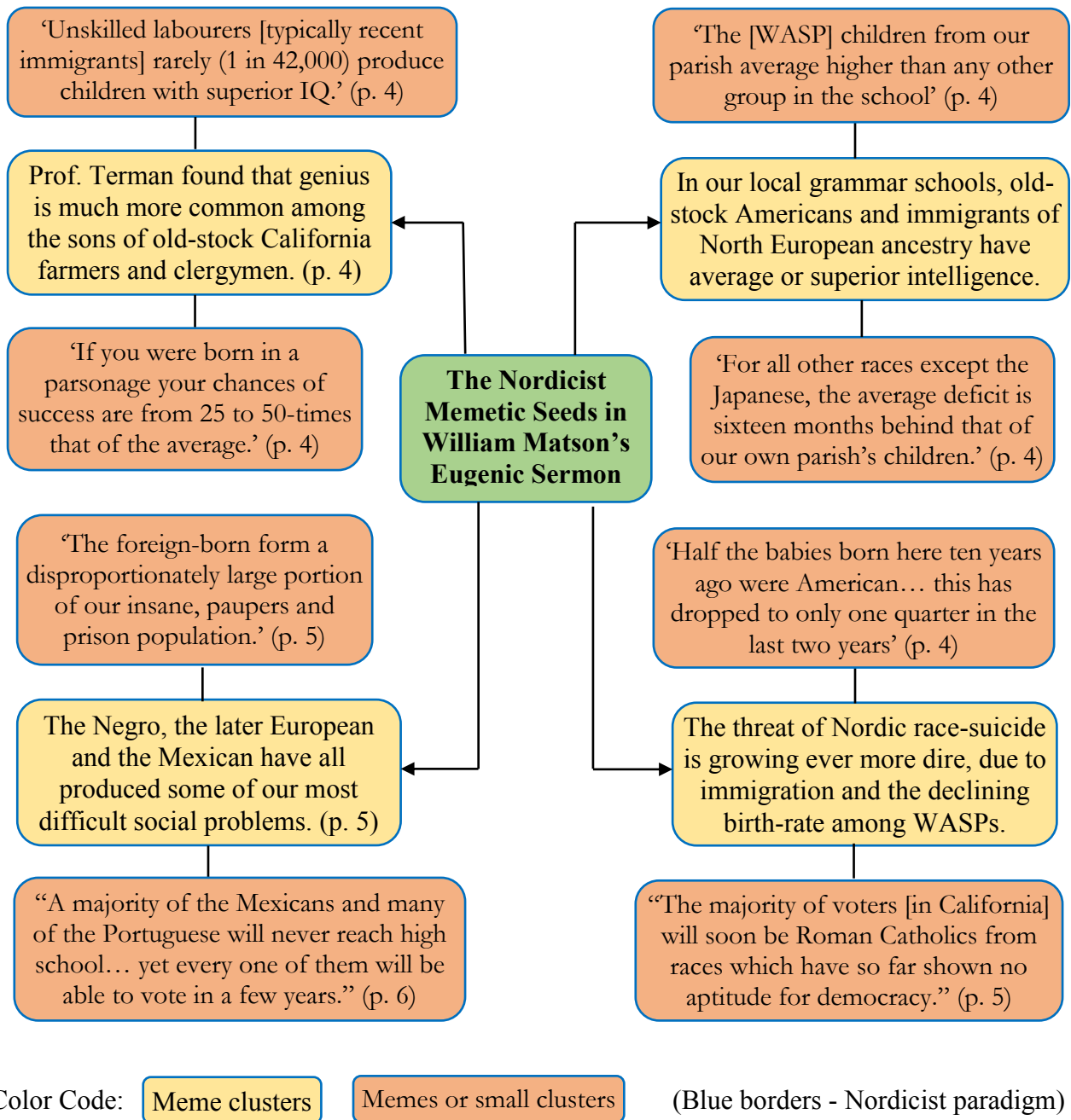


Figure A4-2-3j: A partial meme-map showing some of the more overt Nordacist memes and clusters in William Matson's award-winning sermon in the August 1929 Sermon Number (pp. 4-7). Matson fervently warned that previous golden ages for other advanced civilizations and empires had ended precipitously when the inferior racial elements had outbred their eugenic superiors, including Imperial Britain. Matson argued the racial-demographic problems facing America were "even more pressing than Britain's" (p. 7), and he called for local action and greater national awareness and vigilance.

Wanted: A Better Humanity

The second eugenic sermon, preached by the Reverend R. Homer Gleason to his Universalist congregation in Rochester Minnesota was a ‘Wanted-poster’ for “A Better Humanity” (pp. 8-13). Although Gleason touched a number of eugenic stones that Matson had already polished, it also reflected the local concerns of Gleason’s region, with other dysgenic threats coming to the fore. Unlike southern California’s racial and cultural hodgepodge, Minnesota represented a more pure Nordic demographic, with many Teutonic Scandinavians and few, if any, of the Mexican peons, Black seasonal labourers, or Asian migrants to colour the mix. So although Gleason did not have to worry about racial swamping by foreign elements, nonetheless he warned his congregation about other threats to their progress and prosperity, while abiding by the same simplified hereditarian worldview of his California colleague. His ideas and exhortations for positive eugenics and clean-living were remarkably similar, and although the targets for negative eugenics were different, he approached the task with the same Puritanical spirit and ardor.

In the absence of the external racial threats, Gleason’s eugenic call-to-arms was much closer to the British style of class-based eugenics, as represented originally by Galton and Pearson, and later by popular authors like Blacker, Crookshank, Haire, Ludovici and Schiller in the *To-day and To-morrow* series. The same themes of racial degeneration and the modernist trend of disproportionate breeding of the unfit played-out, exacerbated by misguided Christian charity and State welfare and accelerated by racial poisons like alcohol, licentiousness and tuberculosis. The drop in Anglo-Saxon Protestant birth-rates and family sizes, leading to race-suicide for the old-stock population was the main internal threat to the realization of “God’s Kingdom here on earth” (p. 10). See the opening page of Gleason’s sermon in Figure A42-3k on page 158 of the image file.

Like Matson before him, Gleason used the old “White Trash” family-studies of the Kallikaks and Jukes as exemplars of a possible dysgenic dystopia, and he extended this narrative to include the degenerate posterity of “the Nams... and the Ismaelites” whose “careful family histories have been compiled by authorities” (p. 13). He even added a new dysgenic family, “the Rufers” of Pennsylvania, whom I had never heard of. He also used the Army Mental Tests of WW I (Brigham, 1923) to statistically bolster his arguments of declining intelligence in America, and the threat of progressive Protestant society being swamped by intellectual incompetence and physical degeneration. Of particular concern were college graduates, especially those “40 percent of college women who do not marry, and 46 percent of women in Who’s Who [of America that] do not marry” (p. 10). Although his statistical thrust is not quite as expansive as Matson, he does bring up one problem that should be of

concern to any hereditarian social scientist and to empirical eugenicists in general (see section on “Data Lacking” in Figure A4-2-3j). Of particular interest for this study is Gleason’s recapitulation of the popular expression of the hereditarian viewpoint on the value of formal education, despite his proclaimed belief in the power of both heredity and environment, and his assertion that he is “an enthusiastic environmentalist” (p. 9). With these preliminary observations and speculations on the table, let us take a closer look at Gleason’s Universalist eugenic sermon, and trace the progress of his evangelical appeal for a better humanity through adding the power of heredity and eugenic wisdom to the Christian Soldier’s arsenal of weapons. The first page of Gleason’s sermon is reproduced in its entirety in Figure A4-2-3k on page 158 of the image file.

Gleason’s exposition of the overwhelming power of heredity continued with further everyday exemplars, including one tailored to a good portion of his congregation; and afterwards he invoked the anthropological and eugenic authority of Henry Fairfield Osborn to settle the argument:

No normal person would expect a black baby to be born to a line of white parentage, nor a black-haired, brown-eyed, swarthy, hot-tempered Italian baby to come from a pure line of Swedish ancestors. Not only that, but we look for the transmission of such mental and temperamental attributes as ability, vivacity, conscientiousness, temper, popularity, and even handwriting. Yes, we do believe in heredity. And I think that very great authority, Professor Henry Fairfield Osborn, put the matter very clearly in one sentence of an address before the Second International Eugenics Congress. Speaking of certain races he said, “The reason that these races are so stable and so stoutly maintain their original character is that the most stable form of matter which has thus far been discovered is the germ plasm on which heredity depends.” (p. 9)

Thus, although he espoused an environmentalist sensibility, Gleason’s worldview defaulted to the hereditarian superiority of “certain races.” But he put the case in such a way as to appear at least agnostic on this front. This memetic paradigm carried with it certain corollaries that included the relative educability, including moral education, of children and youth, both among his parishioners and for the outside world, as excerpted in Figure A4-2-3l on page 159 of the image file.

Gleason provided one further example of the primacy of heredity over environment that is of interest because it foreshadowed the argument former AES and University of Michigan President C. C. Little (see the Birthday Number and *Eugenics’* Symposium sections) would later use as a mantra when he became the first president of the American Cancer Society (Engs, 2005, p. 144), bolstering the defense of the Tobacco Companies to environmentalist charges, thus long delaying action on anti-smoking legislation and litigation:

If anyone has the least tendency to question the fact of physical heredity, I recommend they read up on the work of Dr. Maud Slye at the University of Chicago. For nearly twenty years Dr. Slye has made a painstaking investigation of cancer in mice. Her work has shown that the tendency to develop cancer, and the tendency to resist cancer, are unquestionably influenced by heredity. Even more striking than that, her experiments show that the site and the character of the cancer are determined by heredity. (p. 9)

As if anticipating objections from his audience, Gleason turned to the problem of “Data Lacking” (p. 9). He mounted his own pre-emptive rhetorical objection: “Yes, but we have no such startling or definite facts from human life, someone may protest” and then launched into a discussion of the lack of well-kept family histories and the only recently established practice of retaining patient histories for later study; along with the lamentably poor rate of autopsies for people who died of disease or just “natural causes.” He urged his flock to support the efforts of “great pathologists” who were calling for “an autopsy for each fatality no matter how clear the cause of death may appear” (p. 9). Matson asserted that in many cases, undiscovered diseases and defects are found, but promised that once this practice becomes widespread and has “continued for a few generations we shall know far more about heredity among humans” (p. 9). In this, Gleason predicted the numerous and far-reaching discoveries that would be made by medical genetics and human pathology after World War II, linked to the new understandings that the discovery and elucidation of DNA would bring.

But the lack of absolute data should not be a barrier to immediate remedial action, and Gleason provided figures that “are shocking to one’s optimism when they are understood” (p. 9). He presented statistics derived from the U.S. Army Mental Tests of World War I showing the marked degeneration of the intellectual ability of the new America, both among the homegrown White, and the new arrivals from non-Nordic Europe. Coincidental with this dropping average intelligence, and accumulation of the moron and imbecile classes among the breeding population, the drying-up of marriage and fertility among the best classes was compounding the problem. So while college graduates (who “represent the best of life—mentally, physically and temperamentally”) have on average only “one child per family” when the large number of ‘barren-spinster’ college women is included; the “group which rates the lowest in intellect has an average of eight children per family” (p. 10). He warned that the “worst class, already nearly twice as large as the best is producing four times as many children,” confirming the evils of the cacogenic differential birthrate preached by eugenicists, as translated in this righteous response from Reverend Gleason:

To a patriot, zealous for his nation’s welfare; to a Christian, eager for the coming of God’s Kingdom here on earth; to a humanitarian, consumed by compassion for human suffering,—that is a very disturbing picture. (p. 10, 11)

Again, Gleason offered a pre-emptive rebuttal to those who would suggest that “Good and bad strains have always existed together. Why get excited now? Let nature alone; she will take of the situation” (p. 11). But this liberal approach was already “Too Late,” as we have for some generations supplied social crutches and aid to the weak, infirm and diseased, while medical advances have drastically decreased the infant and childhood death-rate so that we were now faced with the situation where “Our charity has increased the birth rate of the unfit and preserved the additional children who were born” (p. 11).

Fearing he might be misunderstood, and considered “heartless,” Gleason insisted his motives and views are entirely humanitarian and Christian. He granted that charity must be provided to feed the hungry, provide medical care to the poor and sick, and relief to every distress. Indeed, he insisted that he is “pleading for the prevention of distress” (p. 11). By applying the eugenic “ounce of prevention” we can, in but a relatively short span “Determine that... the present generation of unfortunates... shall be the last of its kind, or at least that no future generations of derelicts shall compose so large a proportion of humanity” (p. 11).

Furthermore, Gleason devoted a section under the banner “Not Harsh” to the objections any parishioner might level “that calls for harsh methods” (p. 11). He insisted that “most adults concerned would offer no objection to preventative methods,” such as the provision of birth control “to all classes” and reminded the faithful of the danger of race suicide, among “the families who most of all ought to be preserved” and for a weighty example, he looked at “our denomination” (Universalist):

For every 100,000 adherents we furnish 411 persons for *Who's Who* [of America]. The Unitarians are the only group who exceed our proportion. The denomination with the next highest number furnishes only 174... [and on down the line to one with only 3 per 100,000 adherents] But what of the future? Our people practice birth control, the other group [Catholic] does not. If we go on as we have for the past generation, for every 1,000 persons of this generation the other group will have 2,320 great-grandchildren while we will have only 500. At the rate we are going we can expect that some day the Universalist Church will just naturally die. (p. 11, 12)

He reminded the congregation that “it is among the lower classes where birth control ought to be practiced,” and he related his extensive experience in dealing with “those people” for whom children became “just necessary evils” (p. 12). For those who were intelligent enough to practice birth control efficiently, he offered the subsidized and popularized provision of birth control to any married couples who need help controlling their numbers. He urged repeal of any and all state laws that prohibited or limited teaching or provision of birth control, so that after only “one generation will show a great lowering of the birth rate among the inferior people” (p. 12).

Gleason admitted that “information will not suffice with some people” and he gave a typical case of a family of fifteen from Peoria, with a “tubercular father” who refused to enter a sanatorium, yet did not work for a number of years, and was entirely supported by charity. The man continued to add a new baby “just about every twelve months” and yet “the law of Illinois assume that the man is within his rights.” Gleason asked indignantly: “What right has a man to produce life after he has lost his ability to protect and support it?” (p. 12).

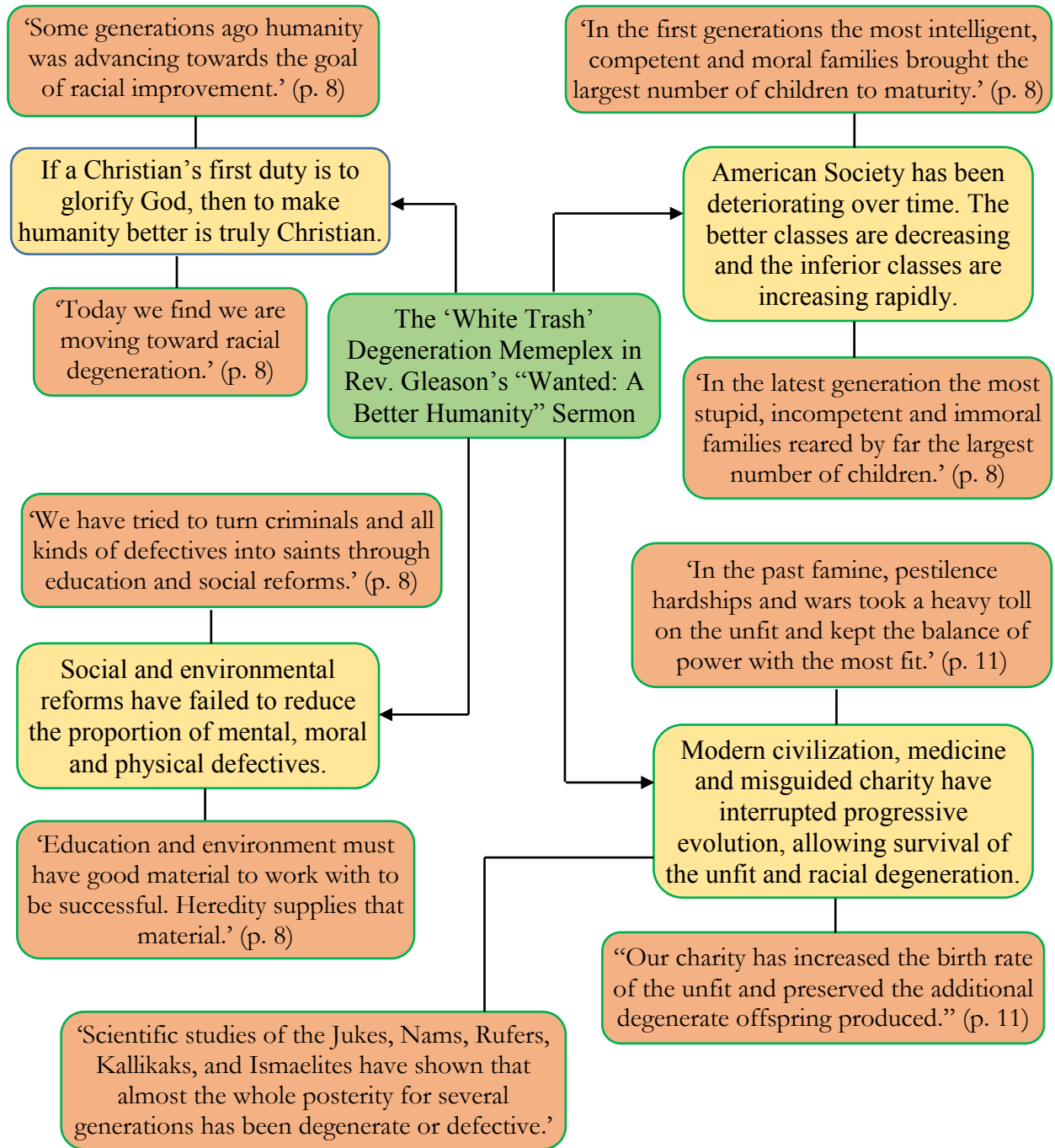
Numerous stock photos could have been included to illustrate the dangers of this dysgenic differential birth-rate, such as from the slum tenements of a teeming metropolis like New York, as used in other issues of *Eugenics* to portray urban decay and over-crowding. Instead, the editors chose to include one of the published photos from Henry Goddard’s *The Kallikaks* (1912), perhaps thinking that the ‘Pine Barrens of New Jersey’ might be a good substitute for rural Minnesota.

In any case, the Kallikaks were notorious as memetic bogeymen to convey a whole subtext of eugenic doctrine, even without the photos with crudely retouched facial features in Goddard’s original, reproduced in the article for readers of *Eugenics* and copied here in Figure A4-2-3m on page 159 of the image file.²⁴³ The “ramshackle” shack they are posing in front of was used as visual evidence of their “hereditary incompetency,” rather than a portentous sign that they were merely victims of poor environment and crushing poverty. No doubt the caricatured facial features helped to persuade any agnostics to ‘pass-over’ to the hereditarian camp.

Of course, Gleason’s congregation would not have had the benefit of the poignant picture to convey the threat posed by the uncontrolled reproduction of the inferior. Instead, he offered a long paragraph ‘thought picture,’ painting for his audience a portrait of those stock characters engraved in the established lore of eugenics. He even added another example (“the Rufers” of Pennsylvania) that few today would have heard of, and even surprised me, who thought he had heard of all the notorious ‘White Trash’ families of the progressive period (p. 13). This would have scored points with eugenics judge Harry Laughlin, if not the other sermon adjudicators. The entire paragraph is reproduced in Figure A4-2-3n on page 160 of the image file. Gleason’s narrative is a *homage* to the infamous cacogenic ethnographic studies mentioned, but with a discernable Old Testament feel, like Genesis or Moses. Like the Biblical story of Cain and Able, or Ham and Shem, heredity could be capricious, or it could be beneficent, but regardless of environment, “good blood” would always tell, while an inferior bloodline would always suffer the slings and arrows of its ill-fated, degenerate germ plasm. The partial meme-map for Gleason’s eugenic sermon is shown in Figure A4-2-3o on the following page.

²⁴³ For a much more sympathetic, well-researched and touching post-modern environmentalist retelling of the Kallikak’s story, see David Smith’s *Minds Made Feeble: The Myth and Legacy of the Kallikaks* (1985).

Gleason’s ‘White Trash’ Morality Memes in “Wanted: A Better Humanity”



Color Code: Meme clusters Memes or small clusters (Green borders - Reform paradigm)

Figure A4-2-3o: A partial meme-map for Reverend Gleason’s cautionary morality play exposing the dysgenic danger posed by ‘White Trash’ clans and lamenting the continued failure of euthenic reforms to counter the increasing degeneration in America’s urban slums and rural backwaters.

Having identified and diagnosed the eugenical threats facing his congregation, denomination and the nation, Gleason summarized the three main thrusts of his sermon, both negative and positive. He expressed confidence that his flock, now alerted to the danger would respond positively with additional above-average progeny, while simultaneously transferring responsibility to the church to aid in the improvement of the rest of the race. Not only should the faithful be keepers of their brothers in this generation, but also responsible for those generations that come afterwards. Even more boldly, he argued that Christians of all creeds, whether Fundamentalist or Liberal, should universally incorporate eugenic ideals into their faiths and daily lives, not just to improve mankind, but to give praise to God. Figure A4-2-3p on page 161 of the image file delivers the conclusion to his sermon and Gleason's sacred charge to his Universalist congregation.

The Second Coming of “Eugenics and the Church”

The last (third-place) sermon published in the August 1929 special issue bore the default or stock title: “Eugenics and the Church” (pp. 14-19), just like MacArthur's top-three entry of the year before; but this time it was preached by Edwin W. Bishop, pastor of the Plymouth Congregational Church in Lansing Michigan. This was not far from Gleason's Universalists in southern Minnesota, on the other side of Lake Superior. Bishop's sermon will not be considered in as great a detail as the first two, but will be used to reinforce and contrast the themes and memes in the other two, as well as mentioning novel thrusts or particularly relevant musings to eugenics education.

First, unlike many of the other sermons and *Eugenics* articles on the biblical basis for eugenics, Bishop stuck with the New Testament exclusively. He made frequent reference with footnotes to passages from the King James version, wherever appropriate, but also referred to secular eugenic authorities, including the AES's dynamic duo of Ellsworth Huntington and Leon Whitney in their *The Builders of America* (1927), a *Eugenics'* Book Club offering. Bishop's main thrust for eugenics and its religious and secular merits was as a means for “capacity self-fulfillment;” for the individual, families, and for “the race” (p. 14). See the opening page in Figure A4-2-3q on page 162 of the image file, with its mission statement for Christian self-improvement in the progressive New World, after the seminal example of the Redeemer of the Old World.

Although it is less overtly Nordicist in its terminology and treatment, the eugenic exemplars were all eminent old-stock Protestant families, like the Edwards, while the dysgenic bogeymen are the same Kallikaks and Jukes, and other unnamed genetic cesspools. These stock narratives would have been familiar to many of the adults in his congregation, but Bishop provided just enough background to

paint a fuzzy sketch for those lacking in eugenic lore. Like the previous two sermons, Bishop also hailed the U.S. Army Mental Tests of WW I, and their eugenic import going forward; as well as the hereditarian implications for education, especially at the higher levels so crucial for progress and the future national health of America. And like Matson and Gleason, he highlighted the completely inadequate procreation by college alumni, especially the women's colleges of "Bryn Mawr, Vassar, and Mount Holyoke," producing only "1.3 children per married graduate" (p. 17), leading to inexorable race-suicide, unless the trend can be reversed and Protestant prolificacy restored to its former vigor.

After a primer on the chemistry of heredity and the basics of Mendelian inheritance, using eye color in a cross of dark-eyed Italians with blue-eyed Scotch-Irish as an exemplar, Bishop turned to the inheritance of mental endowments, which showed an equally hereditarian basis for transmission. Using the old morality play of the twin-lines of progeny of Martin Kallikak, with equal numbers of dysgenic progeny from his unholy dalliance with the 'feeble-minded tavern girl,' and his righteous marriage to a 'worthy Quakeress,' Bishop advocated for adding eugenics to the central purview of the church, as an essential prerequisite for "bringing-in a present Kingdom of God" (p. 16). Bishop also invoked the secular authority of Huntington and Whitney: "showing how we may undergird our future by a well-considered eugenic program, or ruin it by a careless dysgenic one" (p. 17)

In the absence of any identifiable external racial-minority threat to his Congregational flock, Bishop pointed to the legendary fecundity of the feeble-minded and dysgenic classes to swamp the fit and righteous WASP majority through sheer numbers. He provided national and local statistics to highlight the danger of race-suicide, before piling-on the results of his own parish survey to drive the point home, as in Figure A4-2-3r on page 163 of the image file

Bishop's summary enumerated four cardinal points of concern, that build upon each-other to a final pragmatic suggestion that would restore the nation, American Protestantism and his own parish to eugenic health and demographic prosperity, through the twin thrusts of negative and positive eugenics, as reproduced in Figures A4-2-3s and 2-3t on pages 164 and 165 of the image file. To personify the dire need for negative eugenic programs (sterilization and segregation), the editors included a memetically-rich photo and caption that was also later used in 'The Bunglers,' a multipart series that expanded upon and updated eugenic lore of the 'White Trash' family-studies of the Kallikaks, Jukes, *et al*, as shown in Figure A4-2-3s.

Finally, Bishop closed with the contrasting pairing of a dysgenic father's "biologic will of debt," as personified by "libertine Max Jukes" with a eugenic father's "will of credit," personified by American and European men of eminence and historical import (p. 18). This androcentric view that

characterized family pedigrees typically brushed-aside any maternal influences upon the eugenic excellence of the progeny, other than as faithful servants of the father's will, as shown in Figure A4-2-3u on page 165 of the image file. Note however, that Bishop assigned equal blame to "Ada the Harlot" along with Max Jukes for the resulting cacogenic line of descendants. This was also true of the Kallikaks and other White Trash families. Thus women could be rhetorically charged with racial ruin, but had only a silent, supporting role in raising the bar of racial superiority.

Educationally, the Sermon Number served as another memetic vector and propaganda channel for the evangelization of the WASP demographic into the eugenics' fold. It served as a prophetic warning of the internal and external threats to congregations across the nation, but also pointed the way to racial rejuvenation, planting the seeds of 'race-consciousness' in the minds of the faithful, and urging them to reproduce prolifically and serve as faithful Christian soldiers in the onward struggle for preservation of 'old stock American' culture and Progressive Protestantism.

Is Eugenics Scientific Calvinism and Biological Determinism?

Before moving on to the second 'Religious Number' of February 1930, I will first take a look at one of the more religiously pertinent *Eugenics'* Symposiums, asking the loaded question: "Is Eugenics Scientific Calvinism: Is it Biological Predestination?" Appearing in the January 1930 issue (p. 18, 19), it featured a triad of AES insiders, including the man who would lead the AES after World War II and transform it into new entities without the explicit eugenics moniker: Frederick H. Osborn, the nephew of Galton Society co-founder Henry F. Osborn. Figure A4-2-4a on page 166 of the image file shows the photos and initial paragraphs for each of the forum participants. The question was more than a clever rhetorical device, but illustrated one aspect of a much larger memetic entity. When allied with eugenics, Calvinism became a synergistic part of an even more potent worldview.

The question was squarely in A. E. Wiggam's (1871-1957) wheelhouse, as the resident AES philosopher. He was the author of several popular books available through the *Eugenics'* Book Club (including *The New Decalogue of Science*, 1922; and *Fruit of the Family Tree*, 1924), as well being a highly acclaimed public lecturer and eugenics popularizer (Engs, 2005, p. 226, 227). His response occupied the bulk of the forum, being continued below Osborn's three paragraphs and Leon Whitney's short-stub that may have been a short replacement for a non-responding panelist. Although Wiggam was the "son of a lay preacher," it is curious that there were no Calvinist or Methodist ministers on the panel. Wiggam was also the subject of a "News and Notes" brief (p. 20), celebrating another major "Eugenical Event" for the AES and its ongoing educational outreach to the American clergy, as shown in Figure A4-2-4b on page 167 of the image file.

Frederick Osborn's initial *Eugenics* contribution led to greater opportunities in the future, on ERA and AES committees, as secretary and secretary-treasurer (1936-1945, 1959-1970), and later yet as the first postwar (1946-52) President of the AES (Engs, 2005, p. 168, 169). He was also one of the co-founders of the Pioneer Fund, which generously funded such latter-day eugenic disciples as Arthur Jensen, Herrnstein and Murray and Canada's own J. Phillippe Rushton (Tucker, 2002). Osborn was appointed president of the *Population Council* in 1954 by John Rockefeller III, serving until 1959. As the AES was changing its name and modifying its stated agendas in the late 1960s to omit the overt reference to eugenics, Osborn made the prophetic promise that in the future, "Eugenic goals are most likely to be attained under another name than eugenics" (Osborn, 1968, p. 104).²⁴⁴

The Second Coming of the Religious Number

As if to amplify the January 1930 Symposium, the February "Religious Number" arrived to bolster the recruitment of Protestant clergy to the cause, but also engaged in some ecumenical outreach. The lead feature article considered "Eugenics in Catholic Literature" (pp. 43-51), offering a rare memetic opportunity for sympathetic Roman Catholics to cross-over to the 'American Catholic Church.' The next article: "Some Reasons for Jewish Excellence" (pp. 52-57), gave potential progressive Jewish converts the opportunity to celebrate their artistic and intellectual heredity on a par with many WASP greats, and learn about their religious inheritance in the proto-Eugenic dogma of the Old Testament. Refer to the excerpted table of contents for this issue in Figure A4-2-4c on page 168 of the image file.

A curious contrast to the issue's religious theme was displayed by the highly racialized content of the other features, including a historical letter by Herbert Spencer, one architect of social-Darwinism, on the general inadvisability of 'Race Mixture.' In addition, the racially-charged, four-page symposium featured one of Franz Boaz's star-students (Herskovits), along with two other environmentalist sympathizers (on right side of contents). Arrayed against these three were three AES stalwarts, including the dean of American Eugenics, Dr. C. B. Davenport, and C. M. Goethe (see earlier Matson sermon). It is the closest analogue to a tag-team wrestling 'Battle-Royale' in *Eugenics*, and the nearest Symposium to a fair-fight in terms of equal numbers and relative prestige of the participants.

²⁴⁴ Sir Frederick also wrote a short history of the AES in *Social Biology*, the successor to *Eugenics Quarterly*, and 'grandson' to *Eugenics*, in 1974.

A German Jesuit Supporter of Hardline Eugenics

The lead article, which examined eugenic references in Roman Catholic literature, was written by a German Jesuit scholastic Father Joseph Mayer (see bio-brief in Figure A4-2-4d on page 168 of the image file). It was translated by Paul Popenoe, who was a frequent reviewer of German eugenics and race-hygiene books for *Eugenics*. The article was written with the typical rhetoric and style of religious scholars who are adept in making the most of slim evidence and much rhetorical ornamentation to bolster a weak argument. It represents the great hope by the AES leadership that progressive American Catholics might be recruited into the movement, despite the current Pope's (Pius XI) growing opposition to the eugenics movement, other than for their mutual appeals to clean-living, large families and universal marriage for all marriageable persons. While the eugenics movement's calls for prolific parenthood was merely preaching to the Catholic choir, any negative eugenics measures or consequent racial-social discrimination about who should become parents was already anathema for those who took their worldview and life-direction straight from the throne of Saint Peter.

The opening sentence of the article was belied at the end of the year when Pius XI released the new Papal Encyclical on marriage and the family, coming out strongly against any form of artificial birth control, as well as sterilization, or any attempts to limit reproduction by those considered unfit or incapable of proper parentage (See the section on *People Magazine* in Chapter IV). Mayer made hay over the fact that Gregor Mendel, the 'Father of Heredity' (see Figure A4-2-4d), was a Catholic monk. *Eugenics* even used a picture of 'Mendel's Garden' as the opening frontispiece (p. 2). But Mayer neglected to remind his readers that Mendel's superiors were less than thrilled with his extra-curricular efforts, and were quite scandalized by the reawakening and subsequent popularization of his original publication (1865) at the beginning of the 20th Century (Bowler, 2003).

The opening section of Mayer's article is presented in Figure A4-2-4e on page 169 of the image file. Whether the opening paragraph is representative of Mayer's optimism, or was just enthusiastically translated by Popenoe, cannot be ascertained. But from the vantage of hindsight, we know the Roman Catholic Church definitely did oppose many of the "well-founded principles or policies of eugenics," so this article could not have been published as an endorsement by the Catholic clergy a year later, as a result of Pius XI's establishment of official Catholic dogma. The subsequent linkage of Biblical metaphors relating 'evil fruit' to the hereditarily unfit, and even between original sin and 'bad heredity' was fully congruent with the Protestant eugenic sermons considered earlier, but the focus here is always on Catholic theologians and scholars, including the last great English Catholic clergyman, Lord Chancellor Sir Thomas More.

Following extensive quotes of Sir Thomas More supporting eugenics, Mayer assembled other Catholic proponents from Continental Europe, before he jumped the pond and considered debates in Catholic journals that followed the legalization of sterilization in America after the first State Laws authorized the process in 1907. Then, as was the case for eugenics in secular society, Mayer traced the feedback of sterilization debates from America to Germany and beyond in the period before and during World War I. This is excerpted in Figure A4-2-4f on page 170 of the image file.

Mayer confessed the theological debates over sterilization have “not progressed far beyond the American discussion,” but offered additional support from Dr. Fritz Tillman of Bonn, and even Saint Thomas Aquinas, who Mayer claimed as his saintly inspiration for his “new theoretical justification for official restraint of hereditarily defective, anti-social criminals, and also asocial psychopaths” (p. 45, 46).²⁴⁵ Although the former ‘Greats’ among the doctors of the Church offered great theological authority and modest theoretical support for modern eugenics, Mayer claimed these authorities from medieval history have only limited applicability to the great social problems of today. Instead, their authority must be supplanted by a return to nature and its assumed immutable laws, as if these were not conditioned by the prevailing social-science paradigm and the pervasive *Zeitgeist* of the times:

I realized fully that we theologians today in deciding on the justification for some modern method of dealing with morality, such as compulsory segregation or compulsory sterilization, cannot go back to the thirteenth century, but that we must deduce from laws of nature itself harmonious and logical conclusions. But I also wanted particularly to show that our modern problems of population, legal medicine, and eugenics had many predecessors in earlier centuries, and that the Catholic tradition and teachings was in no wise if we assented at least on principle to some of the serious proposals which eugenics presented to us, not opposing them from preconceived ideas or prejudice. (p. 46)

Rather than giving a more full or even substantial explanation of his thesis, Mayer instead provided numerous testimonials from other academics, theologians and “many moralists in German universities” among whom his thesis “found unqualified acceptance” (p. 46). Two that are short and to the point are excerpted in Figure A4-2-4g on page 170 of the image file. Mayer also provided a rosy assessment of the contribution of his book to “Catholic social ethics, ... moralists as well as the canonists” who wish “to meet the many emergencies of our time” (p. 46). The immortal laws of life and nature were waiting, just like Mendel’s once-lost seminal hereditarian research, to be rediscovered by scholars and scientists and practiced again in modernity.

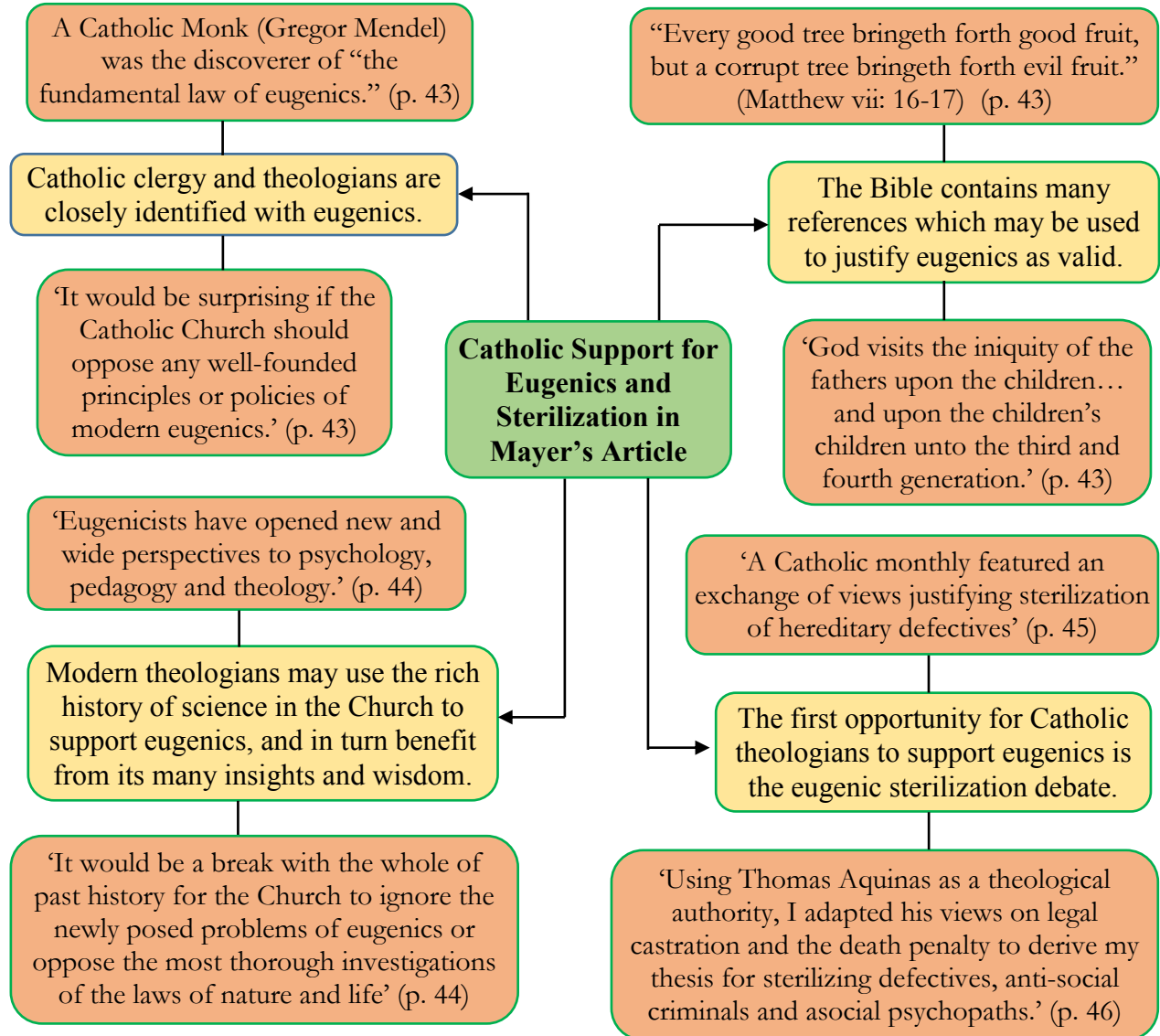
²⁴⁵ Mayer’s “new theoretical justification” was published in various German social-hygiene journals (1925, 1926, 1927), and a book (*The Sterilization of the Mentally Diseased*, 1927), which Dr. Paul Popenoe translated and reviewed for *Eugenics* in the Books and Biography section. See the footnotes on page 46, and throughout the article for a substantial budding library of German race-hygiene.

After this unqualified support, Mayer turned to “refer to critical judgements passed on my book by almost all the leading theological journals in Germany and abroad” (p. 49) and to some of the most recent scholarship and books that were influenced by his ideas and work. He described the spectrum of tentative theoretical support for eugenics, ranging to firm opposition for the practice of negative eugenics, but posited that the support for positive eugenics was almost unanimous among learned theologians. This survey went on for almost four pages, with extensive quotes excerpted in fine print, before Mayer turned to the greatest German “pathfinder to an ethic based on biology” (p. 50), Dr. Hermann Muckermann. He also referred to some of his Jesuit colleagues and medical doctors across Europe (like Dr. Fritz Lenz who would go on to do banner service for the Nazi regime) for their more recent work that continued the debates and theoretical development of Mayer’s work. A short sampling of these is presented in Figure A4-2-4h on page 171 of the image file.

After mentioning other initiatives to evangelize eugenics through popular education elsewhere in Nordic Europe (Swiss, French and in northern-Italy), Father Mayer returned to his homeland and praised the pioneering formal and popular education being done in the cities, towns and rural areas, among the German *Volk*. With racial-anthropology, eugenics, and social-hygiene rising in academic stature in Germany, bolstered by the formation and expansion of the elite Kaiser Wilhelm Institutes researching these fields, these academics just needed a new deep-pocketed benefactor to lift the renascent movement to new heights, united under a common banner. A few stalwarts are mentioned by name, and one of the future major Nazi ideologues was featured in a photo, with a revealing caption praising his work and personal support to Il Duce, as reported in News and Notes for January 1930. Mayer’s stirring conclusion, Popenoe’s revealing footnote, and other valuable eugenic-memetic artifacts are excerpted in Figure A4-2-4i on page 172 of the image file. The partial meme-map in Figure A4-2-4j on the next page summarizes the memes of this atypical Catholic theologian’s take on Eugenics and the Catholic Church.

This feature article was the only full exemplar of Catholic support for eugenics, and came just a few months before the Papal Encyclical that prompted a flurry of activity at the end of *Eugenics*’ production run. That end may also be considered the crossing-point for the rise of organized eugenics in Germany, versus the decline of eugenics as a popular force in America. That the subject of the next article would also become so central to race-hygiene in Germany could not have been foreseen by any of the authors involved in either article, but their juxtaposition in the journal and their memetic mutation in Nazi Germany is fascinating nonetheless, even if it was just a fluke coincidence. So, next we turn from radical Catholic eugenics to “Some Reasons for Jewish Excellence.”

Meme-map for Father Mayer's "Eugenics in Catholic Literature"



Color Code: Meme clusters Memes or small clusters (Green borders - Reform paradigm)

Figure A4-2-4j: A partial meme-map for Jesuit Priest Joseph Mayer's article on "Eugenics in Catholic Literature" (pp. 43-51) in the second "Religious Number" of February 1930. Mayer used St. Thomas Aquinas as a powerful Catholic theological authority to justify his thesis for the legal sterilization of hereditary defectives, anti-social criminals and other modern incarnations of the old Biblical warning about the "sins of the father" being visited upon children through multiple generations.

It is also remarkable that Pope Pius XI used Aquinas as one of the main spiritual authorities for his condemnation of sterilization and artificial limitations upon prolific parenthood for Roman Catholics (see *People* section of Chapter IV). This is a profound illustration of Thomas Kuhn's idea of the 'incommensurability' of rival paradigms in his seminal work *The Structure of Scientific Revolutions* (1962).

‘Some Reasons for Jewish Excellence’

The follow-up article to Catholic eugenical literature dealt with that other major branch of the Judeo-Christian tradition (pp. 52-57). The source material came from Orthodox Rabbi William Grossman, one of the leading American Zionists of the interwar period, with eugenic and editorial assistance of AES executive secretary Leon F. Whitney. As the title suggests, it related examples of Jewish excellence to the proto-eugenical wisdom of the Torah and Talmud, its inculcation by the Scribes and enforcement by the Pharisees and a long line of Rabbis up to the present. See Figure A4-2-4k on page 173 of the image file for an excerpt from the opening page of Grossman and Whitney’s article.

The two authors found common cause in eugenics and explored the proto-eugenic seedlings in the Jewish Holy Books, as well as the teachings of many Rabbis of more recent vintage (see Figure A4-2-4l on page 174 of the image file for a ‘modern’ eugenic recycling of an ancient Jewish tradition). It is one of the most difficult articles in *Eugenics* to comprehend: firstly because so many of the names, however loaded with significance for ardent Jewish adherents, are quite unfamiliar to modern Gentile audiences; and secondly due to the often disjointed structure of the piece, which consists mostly of chained quotes and quips assembled into a rough narrative. It is entirely male-centric, even compared to its WASP counterparts in the eugenic sermons. A good example of this style can be seen in the following paragraph, detailing the ancient injunction against celibacy and the ‘mortal sin’ of voluntary bachelorhood:

Celibacy is greatly condemned by the Rabbis of the Talmud. Rav Hisda, interpreting the expression “in want of all things” said that it meant being without a wife. Rav Huna refused to see Rav Hamnuna, a man of great repute after he discovered that his visitor was a bachelor. The unmarried man is included among the seven types not acceptable before God. He is considered as one who commits murder. He who has no wife is not an *odom* (man). “He who is not married,” runs a Talmudic saying, is destitute of all joy, blessing and happiness,” also to some, without Torah, without a wall (protection) and without peace. “He has no conception of the sweetness of life.” The unmarried man misses many opportunities. A Talmudic saying runs: “At marriage, the sins are forgiven.” It is also said: “Happy is the man who has a handsome wife; the number of his years are doubled.” (p 52, 53)

Marriage and a man’s family are the dominant themes throughout the article, and the primacy of prolific procreation is asserted throughout. But unlike Norman Haire in *Hymen, or the Future of Marriage* (1927), from the *To-day and To-morrow* series, there is no mention of the ancient Hebrew practice of polygamy, or the taking of concubines by the eugenic elite of Jewish society. And unlike Dr. Haire’s *Hymen*, or Dora Russell’s *Hypatia* (1925) (see Appendix III), or the general trend in the published eugenic sermons considered earlier, there is no discussion of contraception. Instead, birth-control was

accomplished by proper attention to race-hygiene and public shaming in the case of dysgenic unions. Rabbi Grossman rejects the idea of companionate marriage completely (p. 52, 53), unlike Henry S. Huntington's more nuanced approach in his July 1930 Symposium response to that question (see section on Popular Education). But Grossman favours easy divorce in cases where a partner is sterile or otherwise unable to procreate (much like Henry Huntington, or Norman Haire and Dora Russell in their works – see the extended reviews in Chapter III for Haire and Appendix III for Dora Russell).

As for the eugenic selection process employed by historical Jewish authorities, it is often more neo-Lamarckian than hereditarian, but a similar attempt is made to interpret these as stressing “good heredity” (p. 53). In the absence of IQ Tests in the ancient Holy Land, the “learned man” of old fulfills the same semiotic function of a superior IQ score (or “the best five percent” of E.A. Ross in Figure A4-4-2q ahead). This curious mixture of Lamarckian and simple-Mendelian anecdotes is revealed in the excerpted paragraphs, reproduced in Figure A4-2-4m on page 174 of the image file.

In all his consideration of eugenical marriages, Grossman always referred to the prerogative of the man (or men) involved, either the man seeking a wife, or the father marrying-off his daughter. Women were considered only in terms of potential property and even then the eugenic calculus was upon the women's male relatives: fathers, brothers, and potential sons from the marriage. The main criteria was scholastic knowledge of the biblical texts (as noted by Dawkins, 1976), so that the title of “learned man” is essentially a stamp of eugenic approval; while being “an ignoramus,” was the Hebrew analog of a scarlet-letter upon the feebleminded, or otherwise unworthy. Again, the text is largely a series of unattributed snippets from the Talmud or other unnamed Rabbis, joined together into a plodding narrative. The following verbatim excerpt exemplifies the above points literally:

“One should marry the daughter of a man of character, for ‘as the tree, so is the fruit.’ ” Another Rabbi says: “If one sees that intelligence is dying out in his offspring, he should marry his son to the daughter of a learned man.” It is also highly recommended to join in wedlock with a learned man. “If one marries his daughter to a learned man, he is compared with those who are companions of the *Schecinah* (Divine Presence).” “All the promises of the prophets will be fulfilled who gives his daughter to a learned man.” “One should beware of marrying the daughter of an uneducated man; for should he [the husband] die, his children must remain uneducated, their mother unacquainted with the glory of education.” “If one marries his daughter to an ignorant man it is considered as if he throws her in front of a lion,” because he would force her coition as a beast instead of applying persuasion. “For a learned man to marry the daughter of an ignoramus and vice versa, is like planting a vine tree among thorns.” “A marriage between the daughter of a ‘kohen’ [learned man] and an ignoramus (*am haarez*) will not be a successful one.” “He who marries an unsuitable wife is hated by God, and Elijah is angry with him saying, ‘Woe to him who wastes his seed, who degrades his family.’ ” (p. 54)

Grossman also related how bad heredity interferes with positive intra- and inter-family relations, so that those who are continuously quarrelsome, meddlesome, cruel, or use vulgar language “are under suspicion of being of impure descent” (p. 55), and thus the product of unworthy marriages, and they themselves will produce “degenerate children or childlessness.” Thus, weeding-out the ‘bad seeds’ became the extended family’s and the community’s concern. So rather than leaving the administration of corrective justice to anonymous eugenics’ boards or civil courts, the people themselves took action to apply direct justice and coercive peer-pressure; purging the taint of bad heredity before it might rub-off on them and their children:

In Talmudic times a custom prevailed in unworthy marriages whereby the offender was publicly ostracized. If a member of a family married a woman that was unworthy of him, the other members of the family used to smash a barrel full of fruit in the middle of the street and acclaim, “Listen, O ye children of Israel! Our brother so and so, has married an unworthy woman, and we fear lest his offspring mingle with ours. Come ye, therefore, and take example for generations to come that his offspring may never mix with ours.” (p. 55)

Readers were told how the Talmud prohibits marriage into families that are epileptic, leprous, or exhibit anti-social behavior, and although it predates the term by centuries, “Imbeciles must not marry” (p. 55). They were also informed that the Old Testament is “full of good eugenic lessons,” but the greatest lesson is the importance of the preservation of the race from all insidious and external reproductive threats. Grossman also esteemed the Talmud and Torah as good sources for “sex hygiene,” which explained how the Jewish people managed to maintain their racial purity despite being scattered to the winds in the Great Diaspora. This purity was often the result of the encouraged consanguineous mixing of families, for instance: “It is mandatory upon one to marry the daughter of his sister... Cousin marriages were not forbidden, nor is there much evidence that they resulted in harmful effects” (p. 56). Grossman listed the blood relations that were forbidden from marriage, but the marriage of Abraham with his half-sister Sarah was eugenically blessed, and the traditional pattern of consanguineous marriages had much to do with endowing the Jewish race with superior characteristics.

The most sacred texts supplied the gospels for sex and social hygiene, but Grossman also acknowledged that “Race purity was stressed” by the lesser prophets, giving the example of “Ezra, a Jewish sage living in 400 B.C.” who “forced the Jews who married Gentiles in Persia to divorce their Persian wives” (p. 56). Grossman also related other less-known racial-hygiene provisions that impact upon the race: even extending to not hitching diverse breeds of draft animals to a wagon or other farming implements, not allowing different breeds in the barnyard or pasture “to gender together,”

nor grafting plants of unlike varieties, nor even joining “different kinds of cloth together in the same garment. Could such admonitions have had any other effect than to bring home the lesson of the value of race purity?” (p. 57). Further, this “race purity ideal was one of the most important in the survival of the Jews and in their excellence. So, like Galton noted in *Hereditary Genius* (1871), Jewish or Christian religious taboos and social-sexual injunctions often had some eugenic value. The task for the modern secular priests of eugenics was to realign those taboos and religious customs to today’s social environment, and inculcate the new biological precepts as though they were religious dogma, to be perpetuated from parents to children, just as all morals and ethics are taught, and this was a key to establishing absolute family loyalty, and thus increasing their “real biological value” (p. 57).

In his conclusion, Grossman admitted that his presentation has “barely scratched the surface of the question which we started to answer” (if heredity can be held responsible for Jewish excellence). But rather than offering pedigree charts for respected “learned men” of Jewish heritage, Grossman (or the editors of *Eugenics*) substituted four wallet-sized portraits of modern Jewish Excellence, as gathered together in Figure A4-2-4n on page 175 of the image file. That there were no Rabbis or other famous Jewish clerics pictured led me to suspect that it was the journal editors who chose the short-list, rather than Grossman himself. The pictured exemplars of Jewish excellence are reflective of the more ‘unOrthodox’ Jewish secular authorities and notables that would be more familiar to *Eugenics*’ typical readers, rather than representing Rabbi Grossman’s inner-circle.

So, with the conclusion of Grossman’s article, the second Religious Number turned to racial matters of a more emergent nature. In fact, except for the July 1930 article (see next section) on “Cousin Marriages among the Parsis,” Father Mayer’s and Rabbi Grossman’s features were the last major articles with a specific religious focus, other than Kenneth MacArthur’s monthly *Eugenics* and the Church column. It is to that new regular *Eugenics* department on religious cooperation with the secular crusade for eugenics that we turn to for the remainder of this section.

Eugenics and the Church: The Series

Like many successful movies that have ‘spun-off’ a TV-series, Kenneth MacArthur’s eugenic sermon turned feature-article from December 1928 was eventually spun-off into a regular column as part of his duties as AES Secretary for the Committee for Cooperation with the Clergy. Though he was no polymath of talents like Florence Brown Sherbon, his column continued to explore numerous topics broached in his eugenic sermon and the others published in the Sermon Number. As previously covered, his introduction in the News and Notes section of May 1930 looked for great things from MacArthur as a specialized ‘eugenic disciple’ for evangelizing the WASP clergy and faithful laymen. His column debuted in the untitled July 1930 issue, along with his first and only appearance in the *Eugenics*’ Symposium, alongside Florence Brown Sherbon, his boss Henry S. Huntington, and former judge Ben Lindsey, discussing Lindsey’s proposal for “Companionate Marriage” (see Popular Education section). The Contents page is excerpted in Figure A4-2-5a on page 176 of the image file for Appendix IV.

The reference to the “Unweeded Garden of Eden” in MacArthur’s response was amplified in other articles of this issue, including two ‘White Trash’ family-studies, and boldly contrasted with a unique article about the eugenic benefits of “Cousin Marriages among the Parsis” (a higher racial-religious caste in India), which combined sectarianism and purposeful inbreeding of superior stocks in a foreign culture. Eugenic-religious doctrine, racial-hygiene and empirical social science combined in this issue in near perfect proportions to create a harmonious entity that pointed the way to a New Garden, and a promised Kingdom of God here on earth. A short excerpt from the first herald of Nordic race-suicide and a pioneer theorizer of the sociological basis for eugenics (Prof. E.A. Ross), was used to fill the small blank space below the conclusion of MacArthur’s and Sherbon’s symposium responses (p. 264). It illustrates in microcosm this seamless blend of racial eugenics, religion and social engineering, and is reproduced in Figure A4-2-5b on page 176 of the image file.

MacArthur’s “Eugenics and the Church” column debut (p. 277) was quite typical of the series. Usually just one-page, it served as a combination of a mini-sermon on a particular topic and a specialized News and Notes section for eugenical-religious current events. Following the academic leadership of E.A. Ross and other eugenical experts in the AES, MacArthur first considered the role of the church in arranging eugenic marriages among the faithful, hinting that his committee has already speculated upon a preliminary plan. He expressed enthusiasm over a smaller-scale scheme for a ‘highly-placed’ Broadway Temple and Housing-complex in Manhattan, of unstated denomination. The complex would combine a grand church, clean-living dormitories – complete with “courting

parlours” for young men “to meet the ravishing young girls of the parish” – and if eugenic marriages were contracted, luxury apartments could be leased, complete with “tower nurseries” to nurture the eugenic children of working couples (p. 277). While the salesmanship technique of using “a little bit of Heaven up in the purest air in Manhattan” may be dated, the same emotional appeal served to raise the Manhattan skyline to Babel-like proportions in the post-War building and baby-booms.

MacArthur’s first mini-sermon is shown in its entirety in Figure A4-2-5c on page 177 of the image file.

It would seem Dr. Reisner’s inspired vision was a casualty of the deepening Depression, as was the fate of *Eugenics* and MacArthur’s tenure as an American eugenic disciple. Having covered the positive-side of eugenics, the remainder of the column space was devoted to covering the campaign to approve birth-control to combat the “utterly immoral consequences of unrestricted reproduction” among the less-desirable. MacArthur offered short blurbs to chart the progress in this area among several regional denominational organizations (Universalist General Convention, Methodist Church of New York, Connecticut Congregationalists, and the American Unitarian Association).

MacArthur closed with a short-clip of bold defiance to the dysgenic policies of the Catholic Church in Porto Rico (a U.S. possession won in the Spanish-American War), on the part of a young secular champion from the local university. The professor’s campaign foreshadowed the sort of liberal revolutionary spirit of a Paolo Freire in the post-War struggles for social liberation in Latin America:

A bill is before the Porto Rico legislature providing for the establishment of a birth control clinic. In spite of the bitter opposition of the Roman Catholic Church, the brilliant young professor of sociology in the University of Porto Rico said: “You may be able through intimidation to kill this bill this year, but it will come up next year, and the next... until it is finally approved, and the church should take warning that if progress is compelled to make its way over the prostrate form of a conquered ecclesiastical organization, then that organization need expect little sympathy in its struggles to rise.” (p. 277)

While the widespread use of birth control by the less desirable elements of the population was considered eugenic and desirable from economic and demographic standpoints, the Janus-face of contraception was the next subject to be broached. Eugenics and the Church returned in August 1930 (p. 318) to discuss a topic that was linked directly to the ongoing WASP population decline mentioned in the eugenic sermons. Many rural or small-town parishes had once been bursting at the seams, but after decades of lowered fecundity among the old-stock WASP congregations, many congregations had now become unsustainable, especially for the poor parsons presiding over their declining flocks. MacArthur placed primary blame for the decline on increased use of birth control by Protestants.

He discussed the idea of providing family allowances for ministers so that they could continue their eugenic function of providing a disproportionately high number of the *Who's Who in America* (see the analogue of this for college professors in the December 1930 Symposium that E.A. Ross, the original prophet of WASP race-suicide, participated in). See Figure A4-2-5d on page 177 of the image file for MacArthur's initial discussion of this vexing problem.

MacArthur also covered the growing trend to consolidation of parishes and even denominations, mentioning the amalgamation of Congregationalists, Methodists, and Presbyterians into the United Church of Canada, which had occurred some five years before his writing. Although he portrayed this ecumenical economization as providing eugenic benefits to WASP clergymen, the symptoms that led to it were discouraging, if not actually foreclosing on the possibility of a WASP Kingdom here on earth. See Figure A4-2-5e on page 178 of the image file for MacArthur's solution for making the eugenic best of a bad demographic situation.

The Fall of 1930: Progressive Protestant Pride Cometh before the Fall of *Eugenics*

September 1930 brought the announcement of the winning entries for the third iteration of the AES Sermon Contest (p. 354), although the sermons themselves were never published in the journal. MacArthur provided a regional breakdown of the forty-nine entries received by state, even noting one entry from Canada, but with no further information. He tried to explain the reduction in the total number of entries, by assuming many other ministers had undoubtedly preached on eugenics, and had just not bothered to submit their entries for judging. MacArthur took consolation in the wide press coverage the contest received from "the religious press." He also noted that Harvard anthropology professor E.A. Hooton would be the judge for the eugenics portion of the scoring rubric, and for the first time, a Jewish Rabbi was on the panel, presumably to judge the homiletic merits of the entries, as excerpted in Figure A4-2-5f on page 178 of the image file.

Linking back to his August column, MacArthur reported on the family allowances being offered in France and Belgium, though he was cool to the fact that these were universal, rather than only for the eugenically gifted. The remainder of the column was further reportage on the official discussion and approval of birth control by more American church groups, including the American Catholic Church, which had departed from their mainstream "Papist" brethren in accepting the practice.

In the October 1930 issue, MacArthur expanded his earlier discussion of the American WASP church's approval of contraception to an international focus, by reporting on the "Lambeth Conference." This was a major global meeting of the brain-trust of the Anglican Church on the

subject of contraception. Cautious approval was granted for the practice of eugenic birth regulation among properly married Anglican couples, but with an explicit disclaimer that this permission was not to be used for “motives of selfishness, luxury or mere convenience” (p. 398). See Figure A4-2-5g on page 179 of the image file for MacArthur’s account of this historic Anglican conference.

MacArthur also noted with approval that the directive issued by the Anglican hierarchy “would seem to mark a final break with the idea that sex itself is sinful” (p. 398), though he did not change his mind about companionate marriage, or endorse the sorts of liberal notions proposed by Dr. Norman Haire in his *Hymen, or the Future of Marriage* (1928 – see review of Haire’s volume in Chapter III). Progressive bishops and laymen had been pushing for a loosening of Church doctrine on the matter of contraception and married sexuality; though MacArthur conceded that the declaration did not “go as far as many zealous advocates of birth control might wish” (p. 398). Figure A4-2-5h on page 179 of the image file shows this further discussion of the Lambeth announcement; including the authoritative quotation of Dean Inge, the eminent resident eugenics’ advocate of the Anglican Synod, who Norman Haire had periodically ‘tilted’ with in *Hymen*. As he did in some other editions of *Eugenics and the Church*, MacArthur filled the remainder of his one-page column with some ‘short snappers’ by various eugenic authorities, reflecting the strict hereditarian stance of WASP adherents on both sides of the Atlantic, as shown in Figure A4-2-5i on page 179 of the image file.

Returning in November 1930, MacArthur circled-back to reconsider the earlier motif of “Church Combination” and the eugenic potential of the economically-driven trend to amalgamation among American WASP churches under the banner of “Progressive Protestantism” (p. 439). This reunion was “emphasizing interdenominational cooperation and the social applications of the Gospel” to “build the Kingdom of God in this world” (p. 439). He envisioned a sort of ‘peace dividend’ from the end of the long inter-Sectarian religious Cold War, which though driven by the Depression, had a decidedly eugenic silver-lining if the proceeds from unification could be devoted to race-betterment. It was also curious to see MacArthur’s subtle chiding of “the South” for its ‘anti-science’ revisionist policy to “hamper the teaching of evolution,” alongside a not-so subtle attack on the Apostle Paul, Catholic celibacy, and “mid-Victorian prudery” (p. 439). This dichotomy illustrated the ideological limits of ecumenism under the banner of eugenics, but also the down-side of decentralized control among Protestant sects over religious doctrines and political-social allegiances that hampered the wider spread of eugenic memes; unlike the Roman Catholics who were soon to be united under Pius XI in their opposition to contraception, sterilization and eugenics in general. The plea for Protestant unity in accepting the gospel of eugenics is excerpted in Figure A4-2-5j on page 180 of the image file.

Following his introductory mini-sermon, MacArthur devoted a short paragraph to an appeal for funding from “wealthy people” in “large city churches” to the cause of eugenics, under the guise of “charity to do away with charity” (p. 439). He offered fervent hope that generous bequests supporting “this preventative humanitarian movement” from wealthy church benefactors would accrue a synergistically greater number of talents for the donors than donations to “hospitals for sick cats or to the perpetuation of interdenominational differences, or even to worthy palliative charities” (p. 439).

Returning to the previous month’s topic, MacArthur closed with a paragraph lamenting the ongoing sectarian opposition to the declarations of the “Lambeth Conference” that “Progressive Protestantism” (p. 439) representatives had adopted, regarding the issues of birth control, marital relations, and sex education. He also highlighted the influence of “the younger element” in supporting the Progressive cause and eugenic ideals. The paragraph is in Figure A4-2-5k on page 180 of the image file. In addition, the Editorial (p. 428) for this issue had an isolated paragraph that could have been part of MacArthur’s column. It is excerpted in Figure A4-2-5m on page 181 of the image file.

The December 1930 edition of *Eugenics and the Church* was one of the most educational and combative in the series. Just as Florence Sherbon had done previously with eugenics-critic geneticist Raymond Pearl, and again with a few popular environmentalists (see the Popular Education section in Chapter IV), MacArthur took this opportunity to “Answer Some Critics” (p. 469). In this case the critics were conservative clergymen and reporters in the religious press that had publically criticized combining eugenics with religion. MacArthur provided quoted snippets of the objections, and then retorted with the progressive eugenic gospel, defending the amalgamation of natural science and religion, for the mutual benefit of both, and the betterment of the race and American society. See the naysayer’s comments and MacArthur’s response in Figure A4-2-5n on page 182 of the image file.

In the subsequent two paragraphs, MacArthur dismissed the individualistic arguments of Robert Quillen and his critical coterie, by reminding them that in both the Jewish and Christian religions, the supremacy of the race and the health and welfare of the larger society (the many) takes precedence over the sensibilities or comfort of ‘the one or the few’ (to paraphrase Mr. Spock). He stressed that “in more recent years progressive Christian thinkers” had taken a more rational approach to crime, vice, disease, poverty and war, rather than the palliative approach of treating symptoms *ad infinitum*. He reminded critics that he, like eugenicists in general and his committee in particular, was doing the Lord’s earthly work, not merely pandering to the unfit masses or the overly sentimental. He chided orthodox critics for not having “heard of the Kingdom of God among men” (p. 469) or the mission to build it. MacArthur’s final riposte is shown in Figure A4-2-5o on page 182 of the image file.

If all this high-powered sermonizing was not enough to silence the critics, or convert them, MacArthur used this opportunity to introduce the regular members of his committee, in a bout of august name-dropping to settle the issue. His list included many of the WASP and Jewish clerics that had been profiled in prior articles on the church and eugenics, or featured in various symposium panels. Although MacArthur's list included a token Catholic priest, Pius XI's contrary proclamation was to end that cooperation, just before the sudden end of *Eugenics*. The list, including denominations and some of their official positions is copied in Figure A4-2-5p on page 182 of the image file.

The Final Editions of MacArthur's "Eugenics and the Church" Column

Having finished the year countering critics in December 1930, MacArthur forged ahead in the New Year with the second-last Eugenics and the Church column, returning to the religious roots of eugenics in the Bible. He began by drawing attention to the most recent crop of eugenic sermons, praising the scholarly ministers who had mined the Bible for eugenic nuggets, finding both finished gems and those requiring some interpretative polishing. He continued with a number of golden rules from the Old Testament, illustrating the Hebrew race's chosen eugenical status and their adherence to racial-hygiene and better-breeding; even involving Yahweh as an active agent of racial purification on a global-scale in the story of Noah, as reproduced in Figure A4-2-5q on page 183 of the image file.

From there, MacArthur turned to the New Testament to gather more eugenic evidence, providing numerous exemplars from the Master's sermons, and exhibiting both strict hereditarian and uncorrected neo-Lamarckian slips without distinction. He related a number of these "directly suggested" eugenic lessons from old Israel to current-day America and the analogous social problems his readers faced, as excerpted in Figure A4-2-5r on page 184 of the image file.

Turning to the "less direct references" of eugenics in the bible, MacArthur mentioned "only a few," again balancing Old and New Testament sources in twin paragraphs that switched back and forth from Bible to modern America, and from the agronomic memes and metaphors of old to the eugenic verse of the 1900s. He used Biblical villains like Cain to personify the individualistic thinking of secular Libertarians, and invoked the Deity and his Prophets, Old and New, Alpha to Omega, to represent the hereditarian cause and their chosen memes for glorification. All this was done while avoiding any talk of Crucifixion, or the various antagonists in that story, or even Jesus's own failure as a prolific father of earthly eugenic offspring. The twin paragraphs are presented side by side in Figure A4-2-5s on page 185 of the image file, along with MacArthur's brief summary connecting Abraham,

Father of the Jewish People, through Jesus and Saul of Tarsus, in a sort-of ‘social heredity’ pedigree-chart, passing-on racial-religious ardor and social duty to the American faithful of MacArthur’s day.

MacArthur ended his two-page column (only the second time his column went beyond one page) with a couple of short announcements, including a shout-out to Dean Inge for his recent appearances in *The Eugenics Review* (*Eugenics*’ British sister-publication). He did this without relating the eugenic moral of the story as he had with numerous Biblical examples (or, more likely, he failed to consider the eugenic import, as it would have been counter to his massaged message). It would seem that simply having a Progressive Protestant personage as eminent as Dean Inge commenting in *The Review*, was worthy of reportage without editing for message congruence; perhaps echoing the adage “there is no bad press” if it gets your name (or meme) noticed. After briefly summarizing the lead-up to it, MacArthur quoted Dr. Inge for his contentious comments on the heredity of Queen Elizabeth I:

Dean Inge comments: “A careful study of the portraits of Henry VIII’s putative children convinced me that while Queen Mary and King Edward VI reproduce some of their father’s features, Elizabeth’s face belongs to an entirely different type. I don’t believe Elizabeth had a drop of Tudor blood in her veins. If this is true, the flighty Anne Boleyn and some person unknown gave us our greatest sovereign.” (p. 32)

The final, one-page iteration of *Eugenics and the Church* arrived in February 1931 (p. 74), hot on the heels of Pope Pius XI’s ground-breaking Encyclical on marriage and the family, released in America on January 8th. It was important enough to interrupt the regularly scheduled programming for both MacArthur and Roswell Johnson’s Legislation department. The reaction was swift, and it was quickly realized this was a game changer for evangelizing ‘progressive Catholics’ and would be a major monkey-wrench in the AES’s legislative agenda. While some sympathetic Roman Catholic clergy, like Father Joseph Mayer profiled earlier, had supported contraception and even eugenic sterilization; the Pope’s dogmatic pronouncement meant that faithful Catholics were now firmly in opposition. While Johnson dealt with the political-legislative fallout (including in the cover-story for the lone-issue of *People* in April 1931, as profiled in the last section of Chapter IV), MacArthur also had some initial thoughts on the implications for birth control, and the ominous further consequences for “racial progress” (p. 74) in the Papist quarters in America. His response to the Papal announcement is reproduced in Figure A4-2-5u on page 186 of the image file, along with a brief editor’s note about the divided coverage.

After his one-column reaction to the unwelcome news, MacArthur filled the remainder of his last contribution to *Eugenics* with some news items. After another victory in getting a major church body to endorse the provision of birth-control advice and techniques to married couples, he added three short items of educational interest. The first concerned a pioneering seminary school in Maine that had been the first to include eugenics in its curriculum for the religious formation of ministers. He then segued into a few short notes on his lecture tour of Protestant churches and conferences. He closed with a brief update on the latest sermon contest, forever to be left in limbo for *Eugenics*' readers, and dropped a bombshell regarding the sudden resignation of Henry S. Huntington, chair of MacArthur's committee. All three items are copied in Figure A4-2-5t on page 185 of the image file. With this bad news, Kenneth MacArthur concluded his last contribution to *Eugenics*, and his leadership role in the AES. So far as I have been able to determine, his involvement with the eugenics movement ended then and there, like so many others in the worst years of the Depression.

This concludes my exposition of Eugenics and the Church. The length of this section was almost double what I had originally envisioned, but it was so rich in educational-eugenical-evangelical memes that it ballooned to massive proportions, literally shutting-down Microsoft Word a few dozen times, before I split-off the image file. It requires no further dramatic embellishments to sensationalize the subject matter. Other scholars could doubtless find even more golden nuggets of eugenical-religious artifacts, as well as generating more profound interpretations than my amateur attempts, and from a dizzying variety of post-modern academic disciplinary foci and sociological standpoints. The follow-up destination for any interested readers should be *Preaching Eugenics* (Rosen, 2004), before branching out to the other literature in its references, or to more recent work on the subject.

This appendix will continue in the next major section, with a review of three representative *Eugenics* feature articles, one for each of the three main foci of eugenics education here: popular, formal and professional.

Section 3: A Typological Trio of *Eugenics* Education Articles

Although this extensive chapter has considered numerous education-oriented feature-articles, such as in the earlier sections devoted to the *Birthday Number* or in *Popular Education*, the presentation that follows will function as a ‘microcosmic’ summary of the three major foci of eugenics education served by the journal: popular, formal, and professional. While other feature articles could arguably be just as instructional or foundational for their respective genres; these three chosen pieces are each well suited to serve as a representative exemplar of their intended type, in addition to telling their own unique stories. This sample typological trio, in the order each will be covered here, is: “Eugenics on Parade,” by S. Wayne Evans for *Popular Education*; “How to Interest College Students in Eugenics,” by NYU Professor Rudolf M. Binder for *Formal Education*; and “Mongolian Imbecility,” by Dr. Madge T. Macklin, for *Professional Education*. Although all three authors were mentioned or featured elsewhere in the pages of *Eugenics*’ over its production run, these exemplars each represent their only feature-article contributions to the journal.

Popular Education: “Eugenics on Parade” by S. Wayne Evans (October 1930, pp. 390-394)

The addition of S. Wayne Evans to the staff of *Eugenics* as secretary for the *Popular Education* committee was already foretold in the March 1930 issue (pp. 115-116), as presented previously in the section on the *Popular Education* department in Chapter IV. Evan’s had just completed his Master’s degree at Columbia, on “The Eugenics Program in the United States,” thus he serves as a good example of the opportunities available for graduates in the eugenics field. His position as the only full-time *Eugenics*’ staff member for a particular committee or program area (in addition to Leon Whitney as executive secretary of the AES) is indicative of the importance placed on popular education to grow the base of the movement; although the timing was less than fortuitous, coming almost a year into the Great Depression. Evan’s brief job description in the same issue shows him taking-over one of the primary roles that Whitney previously filled at State Fairs and other large public exhibitions, essentially being the front-man and demonstrator for the extensive AES exhibits.

“Eugenics on Parade,” appearing in the October 1930 issue, set a record of sorts for *Eugenics*. It was the most profusely illustrated feature-article ever published, and the only interior article that began with a full-page photo (refer to Figure A4-3-1a on page 187 of the image file). This lavishing of image space was normally reserved for the lead-article in other issues, after the so-called ‘frontispiece’ on page two of any given number. Many of these frontispiece photos were merely stock photos from a professional service, with an appropriate caption added.

The introductory photo-spread in Evan's signature article (p. 390) was one of the most carefully composed photographs ever featured in the journal, and is packed with meaning for those who know the history and educational use of these display items. Other photos in the article showed the individual elements of the AES travelling exhibition, some of which had been featured in previous articles, like displays for Fitter-Family contests; or had been used for various lobbying efforts across America, such as the Kallikak pedigree-charts mentioned in the article. Like most other photos of its kind, there are no people in the images, not even Mr. Evans. Instead, the text of the article conveyed the attendance numbers and noted the interest shown by visitors to specific parts of the exhibit. As the article also pointed out, the AES had its own tent for outdoor locations (featured in Figure 3-1e on page 57 of the image file for Appendix IV), or where interior display-space was at a premium.

The opening page of text for the article (p. 391) is shown below in Figure A4-3-1b on page 188 of the image file. It was written in the characteristic language used by *Eugenics* for popular education of the layman, rather than the 'insider' professional prose of the Immigration or Legislation departments, or the occasional research articles. Evans explained the eugenical meaning of the various components of the exhibit, most of which were already veterans of many previous educational campaigns.

As covered in the Popular Education section of Chapter IV, a major part of the AES collection of displays was devoted to the contrast between the eugenically inferior 'degenerate families,' as exemplified by Goddard's (1912) Kallikak Family; versus the 'aristogenic' Galton, Edwards or Merrill, *et al*, families of eugenics lore. These human pedigrees were displayed side-by-side with typical non-human exemplars such as Guinea Pigs (coat-color); or the mutant gene found in "Waltzing Mice," a recessive trait that followed simple-Mendelian rules of inheritance. Although the article admitted many human traits do not follow simple Mendelian rules, this was not explained fully, and there was no suggestion that complex conditions like 'feeble-mindedness' were beyond the current-state of eugenic science to explain. Nor were the methodological assumptions and biases embedded in these family studies mentioned. This reliance on the same simplified hereditarian narratives, as personified by Goddard's masterpiece of eugenic research, is illustrated in Figure A4-3-1c on page 189 of the image file, along with the editor's note explaining the article's origin and ultimate destiny.

With the feeble-minded descendants of Martin Kallikak's 'unholy alliance' with a feeble-minded tavern girl as the personifications of the dysgenic danger posed by the prodigious fecundity of the unfit, Evans highlighted the other displays that deal with the AES's program for negative and positive eugenics, as illustrated in part by the "Wall Book" shown in Figure A4-3-1d on page 189 of the image file. One display traced the progress of eugenic sterilization across America, with "twenty-five states up to January 1930" and "over 10,000 eugenical sterilization operations" having been performed, led by California with over half the total (6000) performed (p. 392).

Another popular display dealt with cousin marriages (also the subject of the *Eugenics*' Symposium in August 1929) and Evans stated that “the data on cousin marriages holds as much interest as any part of the entire exhibit.” Part of this display dealt with those eminent men, such as Charles Darwin and Francis Galton that were icons of the eugenic value of cousin marriages among the eugenically gifted. Another related panel dealt with co-sanguineous marriages among the unfit, concentrating the ‘bad heredity’ to produce a rogue’s gallery of dysgenic traits. Thus the problem was bad heredity, not cousin marriages itself: “Defective offspring from cousin marriages are caused by a ‘double-dose’ – as it were – of bad heredity from both parents. But good heredity from both parents will likewise tend toward normal or eminent offspring” (p. 393). This simplified eugenics catechism essentially mirrored the advice given by the experts in the Sermon Number symposium.

Evans also described the content and pedagogical success of the “Wall Book” (Figure A4-3-1d cited above) with over a dozen ‘pages’ made of thin sheets of plywood, containing facts, quotes, definitions, and the goals and objectives of the AES in its various program areas; much like the original stone tablets bearing the Ten Commandments. Another part of the AES display had an interactive component: this was a section on genealogy and making a record of one’s family tree, not as in Genesis with just the names of who begat who, but a detailed “record of their physical, mental and temperamental characteristics” (p. 394). For this mission, the Eugenics Record Office provided forms for making a eugenically useful family pedigree chart to any interested visitors.

In addition to giving us descriptions and glimpses of the exhibits themselves, Evans also appraised the display techniques that best captured the layman’s attention, pre-dating Learning-styles theory: “One of the most effective means of education is the presentation of facts graphically, as we have learned from showing this exhibit during this and previous years. The eyes have it. Visual education often wins where other methods fail” (p. 394). He also described the Popular Education Committee’s efforts to expand and improve the exhibits, which enlisted the aid of C.P. Ives, managing editor of *Eugenics*, to provide newspaper publicity ahead of the exhibit’s next destination.

Evans made an appeal for suggestions from the readership “constructive or otherwise” concerning the exhibit (see Figure A4-3-1e on page 190 of the image file for some viewer feedback), and announced plans for the construction of “additional smaller displays [that] will be loaned to groups too far distant to profit by the larger one” (p. 394). He concluded the eugenical parade with the itinerary for the exhibit over the past few months and the remainder of the fall exhibit season, as shown in Figure A4-3-1e on page 190 of the image file along with a photo of the AES exhibition tent.

Formal Education: “How to Interest College Students in Eugenics” by Rudolph M. Binder
(from the “Education Number” of April 1930, pp. 123-127, as featured on this section’s cover-page)

One of the only feature-articles in *Eugenics* concerned with **formal** eugenics education, this chosen exemplar came relatively late in the production run, appearing as the lead article for the “Education Number” of April 1930. While the formal education function was ably served by the semi-regular ‘Eugenical Institutions’ department (the July 1929 edition featured Professor Binder’s exposé of eugenics education at New York University – more on this later), I was at first surprised by the relative paucity of coverage on this essential front of the overall AES agenda. But, as was previously stated in the introductory section to the journal, *Eugenics* began as the addition of the popular education function to the existing professional function already served by *The Eugenical News*, first published by the ERO in 1914. *Eugenics* debuted long after the first eugenics courses and textbooks appeared in America (including those civic biology and college-level texts authored by various AES insiders and academics, like Roswell Johnson and Paul Popenoe), and may thus have been considered ‘old news’ to the insiders who planned the journal’s content. Evidence of this bias can be seen in the partial table of contents in Figure A4-3-2a on page 191 of the image file, so that even in this special issue, formal eugenics education played second-fiddle to more familiar themes, including birth control, race preservation, and popular education. However numerous other journals, especially in Educational Administration, Psychology, and Sociology already served the formal eugenics education function in much greater specificity and volume, as these sub-disciplines developed specialty journals.

Irrespective of any tendency to ignore the formal education thrust, this article at least provided a token exemplar, and one filled with eugenical import to the trained eye. In conjunction with the Eugenical Institutions department, including the entry by Professor Binder for eugenics education at New York University, formal education was at least addressed explicitly. As lead article, Binder’s feature is assigned the full-page stock-photo frontispiece with a caption that was entitled “Spring on Campus” (see Figure A4-3-2c on page 192 of the image file), as was apropos for the April issue; the gradually worsening Great Depression notwithstanding.

Dr. Binder’s lead article was already his second published piece in *Eugenics*, following almost a year after his history and overview of eugenics education at NYU, featured in the July 1929 edition of Eugenical Institutions. That profile included an explanation of the suitability of including eugenics education in the sociology program, rather than the more common association with general biology (civic-biology), or more specialized biology courses like genetics. Binder had essentially resurrected the sociology program at NYU in 1906, after being invited to give some lectures there on the subject:

He was told very distinctly that sociology was under a hoodoo at that institution, since two men had, between 1898 and 1902, attempted to start a department and failed. That statement contained a challenge to “make good,” and a caution to be circumspect. The challenge was accepted by giving only general courses during the first three years; when these proved eminently successful, caution became less necessary and a course on “The Family and Eugenics” was planned and approved for the academic year 1909-1910... From that point on the course has been given in alternate years, both in the regular year and the summer school, making it possible for students to have access to this subject every year. About eight hundred students have taken the course since its inauguration. (v2n7, p. 15)

The professor then explained the applied and ‘social-activist’ nature of the sociology-based eugenics instruction in his classes, as excerpted in Figure A4-3-2b on page 191 of the image file. Binder referenced Francis Galton, as the Father of Eugenics, who introduced the ‘aim and scope’ of eugenics to the Royal Sociological Society in London (1904), before Binder instituted his ‘memetically’ sympathetic brand of sociology in New York just a few years later.²⁴⁶ It is also consistent with college-level eugenics textbook sales-leader Popenoe and Johnson’s *Applied Eugenics* (1918).

Since the *Eugenics*’ Who’s Who page at the end of each issue had been discontinued for 1930, the picture and bio-brief for Professor Binder (excerpted in Figure A4-3-2d on page 193 of the image file) are taken from the July 1929 issue; alongside his ‘presidential’ colleague in NYU’s sociology department, AES insider Henry P. Fairchild, who went on to become president of the American Sociological Association (1936). Perhaps it was Dr. Fairchild’s encouragement that led Binder to write his feature article. But despite his pioneering work in college-level eugenics education and close proximity to Fairchild, Binder was not a member of the advisory council or a director of the AES.

With this brief introduction to Professor Binder’s prior contribution to *Eugenics* and insight into his eugenical educational philosophy and progressive social-activist standpoint, it is time to turn to the actual text of his lead article in the April 1930 “Education Number.” The opening page is reproduced in its entirety in Figure A4-3-2e on page 194 of the image file. After the bold titles for the journal and article, the reader’s attention is attracted to the call-out box, where twenty-years of applied eugenics instruction is fashioned into a string of meme-sized pearls of eugenical-sociological wisdom. This box culminates in a fiercely hereditarian declaration and an interesting Old Testament reflection that harkens back to the biblical punishment for the ‘sins of the father.’ But now, study and observance of Eugenics dogma can prevent, or at least protect us from the sins of the “Fathers of Tomorrow” (p. 127), as excerpted in Figure A4-3-2g on page 195 of the image file.

²⁴⁶ While I am not a big believer in *Microsoft Fate*; it is perhaps significant that when spelling “memetically” in *MS Word*, the suggestions that come up are “mimetically” (mimicry or imitation) or “memetic ally.” Both apply here.

Those old sins against social hygiene and healthy mating are still punished today; not by an unfathomable, vengeful God; but by a formerly unfathomable Nature, producing those unfit offspring that are a “burden and hopeless responsibility to parents and to the community, and a reflection on... the parents...” (p. 123). The article is a blend of matter-of-fact Pedagogical Content Knowledge (PCK), humorous references to the popular stereotype (even then) for superficiality among college students, and an almost religious fervor for eugenics and social-hygiene

The post-modern reader will notice that while female college students are mentioned briefly in passing, the focus of the page is almost entirely on the male perspective and his role in progressive-era society. Educators of today’s undergraduates will also struggle to connect the model subjects of eugenic health and WASP privilege in the stock pictures, with the insinuations of adolescent behavior, defiance, or their characterization as “young barbarians.” Compared to this author’s career as an undergraduate in the 1980s, or today’s “superficial non-chalant and apparent defiance of the world;” the college students pictured here could today be candidates for clean-living awards, even in Utah. Perhaps most striking to any 21st Century educator is the total lack of any person of colour, or even much diversity in the styles and fashions among the hundred or so people that can be clearly seen in the three stock photos embedded in the article; the second of which is reproduced in Figure A4-3-2f on page 193 of the image file.

After Binder finished his guided debate of the eugenic and literary merits of Stevenson vs Poe, he turned to popular comic strips to show the eugenic benefits of good health, mental discipline and proper social hygiene for students. He then shifted to eminent men of history and their exemplary family endowments: “the Bach family in Germany and the Wedgewood-Darwin-Galton family in England” (p. 124). He noted that young people naturally gravitate to eugenics “if it is pointed out to them that talented offspring can be the result only of good stock, they will become interested in the choice of capable mates” (p. 124). In other words, the same memes as ‘Eugenics on Parade,’ only delivered in a college lecture format. At this point in the article, the popular narratives of the Kallikaks or similar dysgenic cautionary tales were used to illustrate the Janus-face of hereditarian dogma. But here Binder also noted frequent problems in overcoming popular student misconceptions, based on flawed environmental theories, like Marxism, as explained below:

I have almost invariably encountered opposition from students who believe in the omnipotence of the environment. The relation of heredity to environment is one of the most intricate and is difficult to explain to students who believe that Karl Marx is the zenith of all economic knowledge; a little patience and some concrete examples from present day experiences will usually force such obstinate objectors to concede the importance of heredity and the consequent need for careful selection of mates. (p. 124, 125)

Binder lists a number of arguments in his arsenal to convert these “obstinate objectors” to the hereditarian worldview, including common examples from domestic animal breeding (greatly enlarged beef steers and production of milk in specialized breeds of “milch cows”), or new cereal crop varieties produced by agricultural specialists. But to persuade the recalcitrant environmentalist, Binder used the same negative eugenic rhetoric as his Immigration and Legislation colleagues, including the fearful statistics for the “economic and social waste” (p. 125) resulting from the crime, insanity and pauperism caused by poor heredity and uncontrolled breeding of the unfit.

The professor also tackled other objections that students sometimes offered to negative eugenics, including the sticking-point on “constitutional grounds.” (p. 125). He dealt with these in much the same way as Justice Holmes wrote for the majority of the U.S. Supreme Court in the *Buck v Bell* case; whereas the nation requires its finest young men to fight and die for it in times of war, “it demands only the abstention from procreation from defectives.” Binder also argued that “The theory of ‘natural rights’ has been exploded long ago; there are only social rights and society has balanced them with duties,” so that in the case of social or racial defectives, with “the lesser sacrifice demanded of them” (compared to the military draft) “they have no right to complain” (p. 125). He finished his argument by claiming “this sense of social responsibility is rarely taught to young people, and they argue with perfect naïveté against negative eugenics” (p. 125).

Having dealt with typical student reactions to eugenics instruction, as well as common misconceptions and moral objections, Professor Binder turned to some advantages or reasons for teaching eugenics as part of sociology rather than biology, as excerpted in Figure A4-3-2h on page 195 of the image file. This was particularly significant for female students who were less likely at that time to be well-represented in the natural sciences, but gravitated instead to the burgeoning social-sciences.

Once he had quashed the shaky case for romantic love over eugenic reason, Dr. Binder then devoted the last page of text to recount some of his personal experiences teaching eugenics at NYU over his twenty year career. It is interesting that here, unlike the first page, the examples he gave for deeply impressing his students on the importance of eugenics all concerned female students; except for one male student who admitted to taking his course only because “I thought I was going to hear something spicy,” but ended up learning “something really valuable. My attitude toward women and marriage has changed completely and for the better” (p. 126). But unlike this redemptive conversion of ‘male chauvinist pigs’ into saintly marriage material, the anecdotes concerning his female students are bitter-sweet stories of forced spinsterhood, or worthy women making a tragic sacrifice at the altar of eugenics, rather than degrading themselves with the poor eugenic quality of men in their lives.

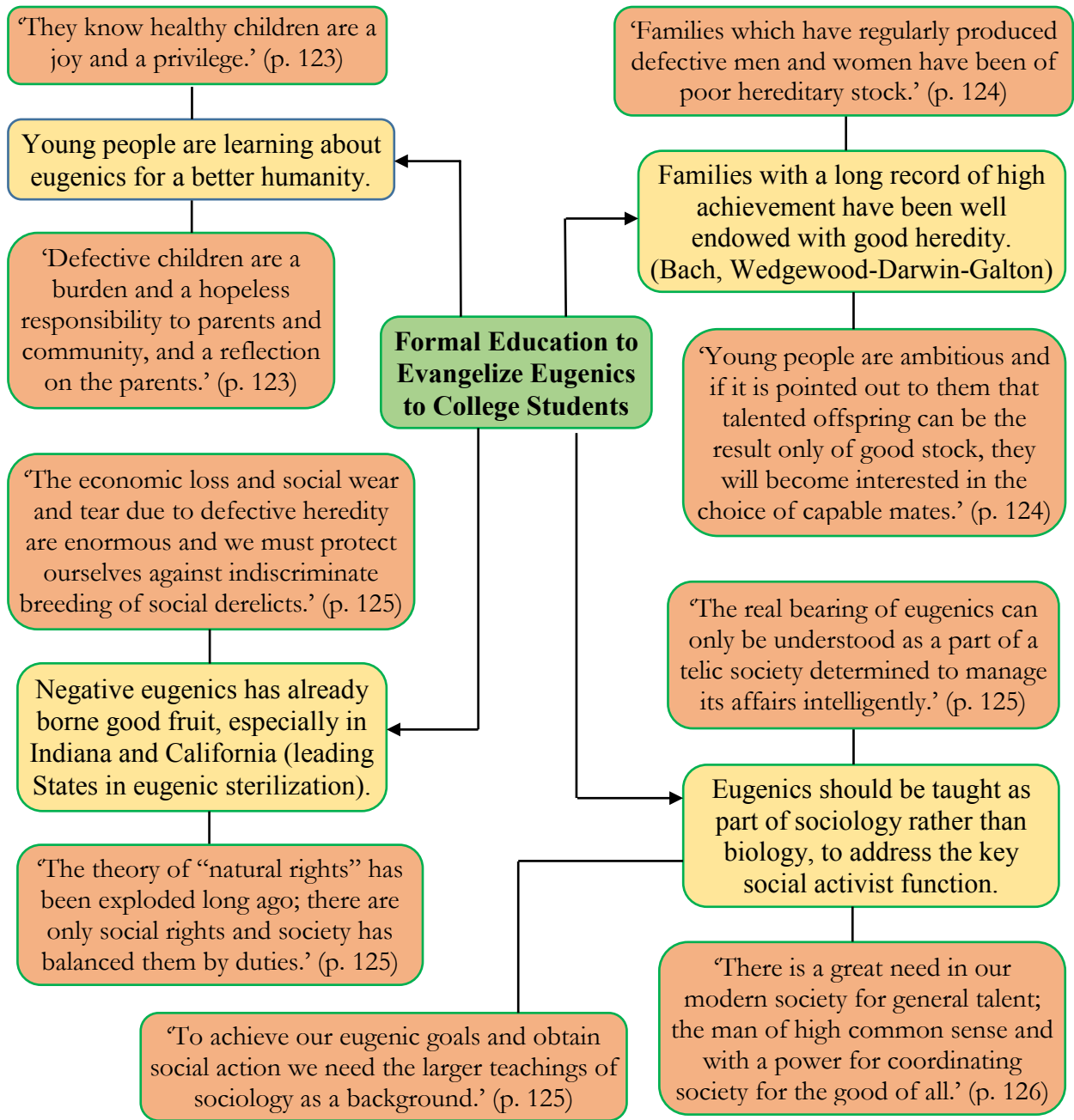
This was the first real taste of the kind of feminist rhetoric that one might expect from a modern sociology course, with the curious twist that women are making the choice not to marry on eugenic grounds rather than due to personal ideology or individualistic motives. In short, the poignant examples are stories of “Familyism vs Individualism,” which was the subject of one of the follow-up feature articles, by Robert J. Sprague, who had previously warned (1915) of the dysgenic role of formal education for women in aiding and abetting race-suicide among old-stock Nordics.

A trio of these personal vignettes are presented in Figure A4-3-2i on page 196 of the image file, along with the results of a class questionnaire on the question of “Companionate Marriage,” which was to be the subject of an upcoming *Eugenics*’ Symposium (July 1930), featuring Dr. Florence Brown Sherbon, as previously covered in the section on Popular Education. Professor Binder concluded with the stirring paragraph that was edited to produce the dramatic call-out box on the opening page, distilling the honed memes from his twenty years of eugenics instruction at the college-level. The meme-map in Figure A4-3-2j on the next page summarizes some of the key memes and clusters expressed by Professor Binder in his seminal article on formal eugenics education at the college level.

The overt racial and strict hereditarian thrusts of formal eugenics education in America would be softened in coming years, especially for girls and women as part of home economics or social-hygiene courses that reached their popularity peak in the ‘Progressive Education’ of the 1930s (Currell and Cogdell, 2006). But the underlying memes of “Familyism vs Individualism” (Sprague, 1930) were preserved and provided the memetic underpinnings for what became the post-WW II Baby Boom. This was the last great attempt at a WASP demographic comeback to avoid the tragic fate of race suicide, as prophesied by sociologist-educators like E.A. Ross (ASA President 1914) or Robert Sprague decades earlier. The only other article on this subject that appeared in *Eugenics* after this issue, was the article on “Faculty Family Allowances” by AES insider E.A. Wiggam, which appeared in the December 1930 “Child Allowance Number” (see coverage of this article in the Popular Education section of Chapter IV).

Having explored popular and formal eugenics education, this section will conclude with a look at one of the recurring ‘research articles’ that were regularly published in *Eugenics*. These academic papers, even when edited for a general audience, can be viewed as a foray into professional education, especially for the many medical professionals that formed a fair proportion of the AES membership. It was articles like this that gave a certain academic journal façade and professional respectability to what was at heart a popular magazine for the educated layman. It was also the only article written by a Canadian academic, who at one time was being considered for a bigger role in the AES.

Meme-map for Professor Binder’s ‘How to Interest College Students in Eugenics’ Article



Color Code: Meme clusters Memes or small clusters (Green borders - Reform paradigm)

Figure A4-3-2j: A partial meme-map for Professor Binder’s primer on how to interest college students in eugenics. Binder argued sociology was a better memetic delivery vehicle than general biology, so that the young men and women of today can be properly educated into becoming the superior parents of tomorrow, with a social-activist outlook to work towards the goal of a harmonious, healthy society. Much as with feminism since the ‘first-wave,’ the prevailing worldview and paradigms of sociology have undergone a memetic revolution since the height of the eugenics movement and hereditarianism.

Professional Education: “Mongolian Idiocy” by Madge Thurlow Macklin (March-July 1929)

The final exemplar to be considered in this section represents the professional education function of *Eugenics*. There are a few good reasons for choosing this article (plus an extended rebuttal to a critique from a contemporary medical colleague in the letters section) as a representative sample of this professional sub-genre. First it is a fine example of a ‘research’ article (see Figure A4-3-3a on the page after next for the genesis of the article), as occasionally published in the journal. Second it is a good example of the sort of “reform eugenics” (Kevles, 1985) that gradually replaced the older Nordacist-Nativist strain of American eugenics, though still firmly hereditarian in its orientation. It was the medical-psychological community that became the primary practitioners and administrators of established reform eugenics programs after WW II, right up to the time where remaining eugenics statutes (such as compulsory sterilization) began to be repealed in the wake of the civil-rights, feminist and disability-rights movements of the post-modern era. Thirdly, it represented one of the few occasions in *Eugenics* where an article led to some professional controversy and prompted a follow-up by the same author. This kind of professional-community function was rare in the journal, although it was common for ardent readers to criticize the provision of any space in the journal to opponents or ideological critics, as mentioned in the section of Chapter IV highlighting “The Birthday Number.”

In addition, it was one of the few articles with a significant consideration of the condition now referred to as *Down’s Syndrome*, but here labelled as either “Mongolian Imbecility,” or “Mongolian Idiocy,” or just “Mongolism.” *Eugenics* did feature a few photos showing Down’s Syndrome children or youth as generalized examples of the unfit and the high cost and futility of eugenic segregation, but the condition was not elsewhere treated separately from other ‘subnormals.’ This is noteworthy, considering that the *To-day and To-morrow* series devoted an entire early volume (the third in the series) to the topic: “The Mongol in our Midst” (1924), by Dr. F.G. Crookshank of the *British Eugenics Society*.²⁴⁷ Finally, there is one more ulterior motive for considering this article here, and that is the professional home of the author, Dr. Madge Thurlow Macklin (1893-1962), whose bio-briefs from the *Eugenics’ Who’s Who* are excerpted in Figure A4-3-3b on page 196 of the image file.

²⁴⁷ This volume was later expanded and updated into a full-length scholarly book in 1931, by series publisher Kegan Paul, Trench & Trubner of London. Both editions are fascinating in terms of the anthropological theories proposed by Crookshank; as well as the large number of startling photos insinuating direct simian origins for all the non-Nordic races of man, and thus should not be considered reform eugenics, but more a medicalized strain of Nordicism or Continental racial-anthropology. This reversal of the usual pattern is a good illustration that ‘memetic stereotypes’ are as fraught with contradictions as racial stereotypes.

Dr. Macklin was listed as one of the few Canadian members of the AES (see Figure A4-3-3c on page 197 of the image file), and elsewhere as a eugenics educator for hire. Those familiar with eugenics in Alberta will note the presence of Dr. John M. MacEachran of the University of Alberta, chair of the Alberta Eugenic Sterilization Board (from 1928-1965). It is interesting to see there are more Canadian subscribers than from the older and more established British movement. Notice the list of British subscribers includes *To-day and To-morrow*-author F.C.S Schiller, and Cora B.S. Hodson.

The News and Notes section for the 1929 Directors' meeting in this issue (p. 29) alluded to a Canadian member being considered as a Director of the AES, though they do not mention who it was. But Dr. Macklin has a better claim to being the likely candidate under discussion than any others listed in Figure A4-3-3c. "Definite action on this matter was postponed to the annual meeting in June" (p. 29), but the published notes for that meeting mention nothing more about this matter.

The February issue (as noted in Dr. Macklin's bio-brief) has a three-page spread on the joint meeting of the AES and ERA with the Race Betterment Foundation (RBF) of Dr. John Kellogg, at their headquarters in Battle Creek Michigan, in the News and Notes section (pp. 28-30). It introduced the principals of the three organizations involved and discusses the types of delegates attending the conference, as well as the social activities and a general description of the conference agenda. Next is a more specific enumeration of the resolutions passed by the conference, including a thank-you to Dr. Kellogg and his Sanitarium staff for hosting, another commending a fallen comrade of the eugenics movement, and one that endorsed pending sterilization legislation in Minnesota.

Following this was a summary of the program, noting the various papers presented and their authors. One of interest for eugenic education was presented during the first-day's morning session entitled: "The Use of the Radio in Eugenic Education," a novel form of popular evangelization for that time, especially in rural areas. This was mentioned several times in News and Notes, and in the Popular Education department (see Chapter IV). In addition to the usual keynotes by the top leaderships, and the typical thematic addresses on traditional eugenics topics, like birth control, immigration and legislation, there were other sessions with obvious educational relevance. These included: "The Inheritance of Mental Aptitudes," first in dogs, provided by Leon Whitney; and then in humans, given by Dr. Henry Goddard. Almost all of these sessions were given by top-level insiders of the AES, ERA, or RBF, and many would become feature articles in *Eugenics*, once they were shortened and stripped of overly technical language or heavy statistical content. The partial excerpt of the conference program in Figure A4-3-3d on page 197 of the image file illustrates a number of these, including a couple sessions by Dr. Macklin, and another by Dr. Sherbon.

These scholarly articles from AES-ERA annual meetings, directors meetings or joint conferences represent a definite professional education function, though they were greatly shortened, and stripped of many of their technical terms and scholarly citations before being published in *Eugenics*. These articles were usually given a bold frame with the stamp **RESEARCH** (see Figure A4-3-3a below), as a standardized scientific imprimatur from the journal. The opening page of the article is reproduced in its entirety as Figure A4-3-3e on page 198 of the image file

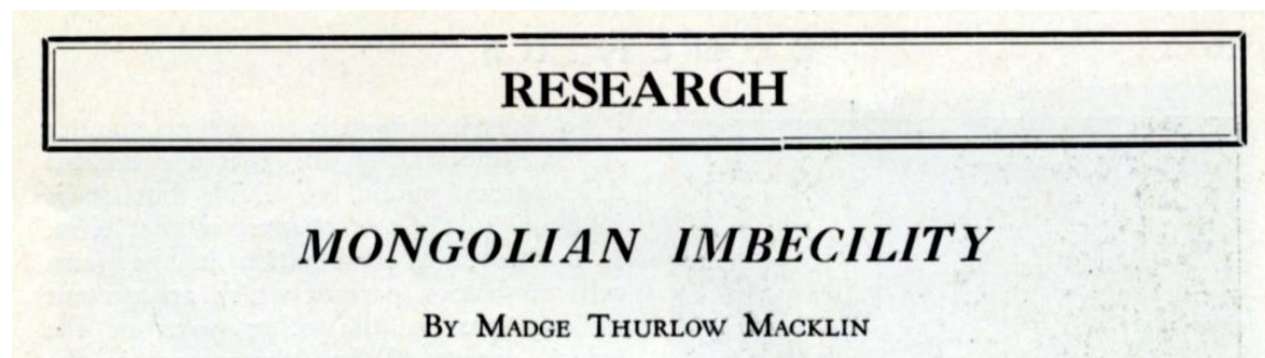


Figure A4-3-3a: The authoritative imprimatur of **RESEARCH** for Dr. Macklin's article. (p. 25) It is typical of the journal's practice of publishing academic papers delivered to the formal gatherings of the leadership of the AES, such as annual or director's meetings. These articles were then published over the next few issues, after being edited for a popular audience. Some journal readers still complained in their letters to the *What Reader's Write* section that they were too technical and abstract for their tastes. This was addressed in the change from *Eugenics* to *People* (see last part of Chapter IV).

Even the average educated layman could appreciate the methodical approach and logical arguments that Dr. Macklin used to refute a variety of previously posited environmental causes for Mongolism, and she devoted the first-half of her three-page article to knocking-down the environmentalist's house-of-theories, before offering her tentative hereditary explanation. It must be remembered that at this time, chromosomal analysis was in its infancy, and then only for certain cells in certain organisms, such as the salivary glands in the fruit-fly (Carlson, 1981). And without a theoretical explanation for DNA or the bio-chemical mechanism of heredity, any explanation had to be tentative, and based on inference and deduction, rather than on direct empirical evidence.

At the half-way point, Macklin introduced her hereditary hypothesis, which was excerpted in the call-out box on the opening-page. The transition between refuting environmental causes and proffering a hereditarian one is excerpted in Figure A4-3-3f on page 199 of the image file. This is copied alongside a photo in the article, which were recycled staff photos from previous issues, but also typical of the kind of photos published in medical or genetics textbooks for many decades.

After presenting her hereditary hypothesis, Dr. Macklin presented clinical-empirical evidence to marshal support for it, just as any careful researcher would do for a scientific journal, but without the frequent citations and references that one would find in most medical journals, or even in *The Eugenics Review*.²⁴⁸ Two paragraphs are devoted to this, excerpted in Figure A4-3-3g on page 199 of the image file. With the hindsight of history, we can spot her faulty logic and scientific over-reach, limited by her use of simple-Mendelian models to formulate a hypothesis for what is a chromosomal nondisjunction condition. Yet she never uses the M-word, even though she is obviously describing the “unit factors” oft-posit-ed by early eugenicists in simple-Mendelian inheritance, and criticized by H. S. Jennings in *Prometheus* (1925) in the *To-day and To-morrow* series (reviewed in Chapter III).

With clinical evidence presented for the hereditary cause of Down’s Syndrome, and having “shatter[ed] all theories which invoke environmental influences” (p. 26), Macklin turned to the characteristic anatomical features, as illustrated in the two photos included in the article: the first in Figure A4-3-3f showing the face of “a mongoloid,” and the second in Figure A4-3-3h on page 200 of the image file, which was a close-up showing the hands of three afflicted individuals (p. 27).

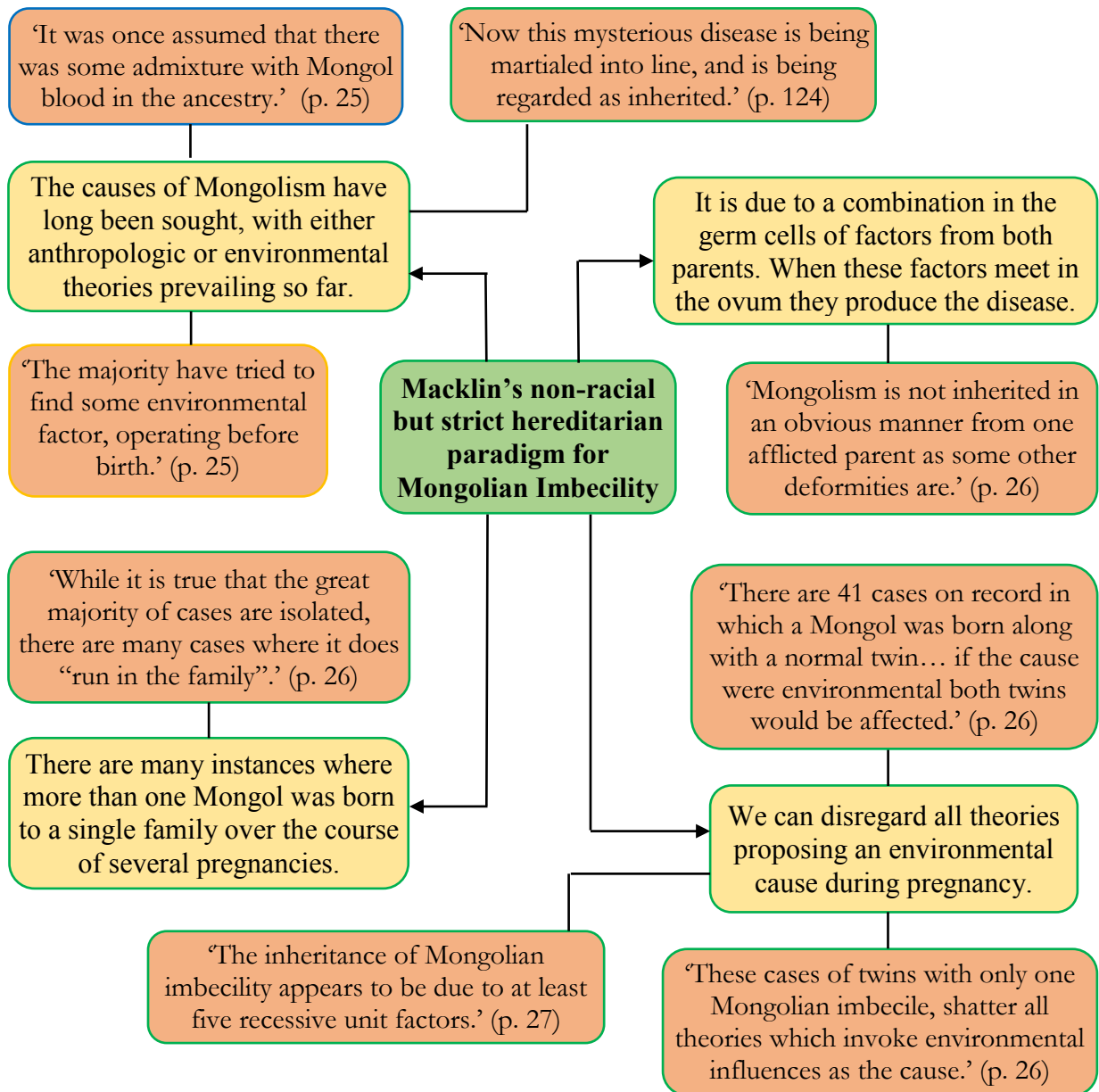
In the final section of her popularized research paper, Dr. Macklin attempted to differentiate Mongolian imbecility with another condition that does follow simple-Mendelian rules of transmission, then known as *amaurotic familial idiocy*, the original term proposed by Dr. Bernard Sachs for what is now referred to as Tay-Sach’s Disease.²⁴⁹ Macklin rightly recognizes Trisomy-21 is not an example of a single pair of simple recessive genes interacting, using statistical evidence that was presented in her original paper, later to be published in full in a forthcoming ‘proper’ medical journal (the only citation included in the article). But Macklin was unable to break from a Mendelian “unit factor” or isolated gene explanation, even proposing some minimum number of genes that might be involved. She ended with the usual cautions that her paper was not proof of her theory, and concluded that only controlled breeding experiments could flesh-out her embryonic theory or offer conclusive proof for her hereditary hypothesis. Her conclusion is presented as Figure A4-3-3i on page 200 of the image file.

The partial meme-map in Figure A4-3-3j on the next page summarizes the strict hereditarian paradigm for Mongolian Idiocy as expressed by Dr. Macklin. It is typical of the ‘hardline’ but non-racial eugenics memplex adopted by this early generation of medical geneticists, as opposed to the Nordicist hypothesis of F. G. Crookshank in his *The Mongol in our Midst* (1924) (see Appendix III).

²⁴⁸ Macklin’s extensive scholarly article was published in the *American Journal of the Medical Sciences*, (*AJMS*, est. 1827 and still going strong), but not until the September 1929 issue (see later in this section for more details on this).

²⁴⁹ After the doctors who first described it, and who noted the condition is much more common in Ashkenazi Jewish families. This fatal disease caused by a single, recessive mutant gene was in fact used to argue for immigration restriction of eastern-European Jews in the debate before the 1924 Act was passed. Macklin never mentioned this.

Meme-map for Dr. Macklin's's 'Mongolian Imbecility' Research Article



Color Code: Meme clusters Memes or small clusters (Green borders - Reform paradigm)

Figure A4-3-3j: A partial meme-map for Dr. Madge Thurlow Macklin's popularized "research" article on the inheritance of Mongolian Imbecility. Although Macklin did not offer any support for racial or anthropological theories (such as Dr. F. G. Crookshank's *Mongol in our Midst* (1924) in the *To-day and To-morrow* series), she stuck to a strict hereditarian paradigm and refuted all environmental causes. This was common practice in the field of medical genetics at that time, and for decades afterwards. Indeed, many eugenicists, like Macklin, found lasting careers in medical genetics (*aka* human genetics) after the bottom dropped-out for academic careers in teaching or doing eugenic research.

Regardless of whatever impression today's reader might have formed regarding Macklin's abilities as a researcher and academic, it should be noted that she later served as president of the *American Society of Human Genetics*; the first female in that post. Although she does not have a separate Wikipedia article, she is identified in a photo, and the caption notes her future distinction as the Society's first female president. Macklin is pictured with other experts in 1937 in Figure A4-3-3k on page 201 of the image file, with the caption "Most Famous Cancer Researchers in the World." This august group of medical-scientific researchers included former AES President C. C. Little (at far-left), although there is no mention of anyone's eugenic involvement in the extensive caption.

Critical Reaction to Macklin's *Eugenics* Article and Her Counter-response

Reaction in the journal to Macklin's article was somewhat delayed, but the June 1929 "Medical Number" featured a letter in the "What Readers' Write" section (p. 35) that questioned Macklin's strict hereditarian interpretation. Dr. Richard Stifel of Cleveland wrote a rather scathing letter, in which he disputed his colleague's dismissal of the environmental exhaustion theory; and her rather bold assumption that all ova would show the same degeneration or exhaustion, using plant seeds as a metaphor to argue the contrary. He insisted that the volume of clinical evidence linking Trisomy-21 to older mothers, and those who had many children in succession, is too great to be merely pushed aside by the kind of sweeping rhetorical statements as Macklin had used to "shatter" all environmental explanations. It is interesting also, that Stifel used the term "Mendelian ratio" when Macklin had not. Dr. Stifel's entire letter is excerpted in Figure A4-3-3m on page 202 of the image file.

With the environmentalist gauntlet thrown down, so to speak, Macklin responded to this critique in the July 1929 "Economics Number" (p. 13, 14), in a rare rebuttal by the same author to a reader's challenge. While the 'What Reader's Write' section often had feedback or even criticism on the previous issues articles, the extended reply by Macklin to her professional critic is almost unique in the thirty-month production-run of *Eugenics*. While this is a common practice in true professional or scientific journals, it was not usual in *Eugenics*, where preaching to the choir was the standard, if not the rule. The first page of Macklin's extended rebuttal is reproduced in its entirety in Figure A4-3-3n on page 203 of the image file, along with the explanatory note in the header. Notice also that Mongolian *Imbecility* (a mental age of 3-8 years) was demoted to *Idiocy* (a mental age of less than three) in the title and the first instances in the text, but later both these terms are used interchangeably with the generic term *Mongol*.

As was the case in her original article, Macklin devoted much of her rebuttal to refuting Stifel's environmentalist claims with her own clinical data, enumerating 275 cases in her study population. As would be expected in a popular publication, the statistical treatment is limited, and there were no data tables, graphs, study references, or other such tools of persuasion that would be part and parcel of similar articles in conventional medical journals, including her article in *The American Journal of the Medical Sciences (AJMS)*.²⁵⁰ Other research articles presented statistical tables or graphs, so their absence here is puzzling. Perhaps Macklin was saving her clinical data and statistical analysis for the upcoming *AJMS* article (an established and more prestigious professional journal with a larger circulation), but it is also likely that *Eugenics* gave her a short page limit, and specified omitting any such details.

After adducing additional evidence, Macklin used the last column of the two-page reply to again argue for a strict hereditarian interpretation of the clinical evidence, using very strong rhetoric like “proven incorrect” and “forced to the conclusion.” (p. 14). She chastises Dr. Stifel for his simplistic “Mendelian-ratio” comment at the end of his letter, as she had explicitly contrasted Mongolism from simple-Mendelian inheritance, but had still employed “unit factors” as a facsimile and did so again in her concluding paragraph, as shown in Figure A4-3-3o on page 204 of the image file.

As mentioned previously in one of the image captions, the actual chromosomal non-disjunction that is responsible for Down's Syndrome (Trisomy-21) would not be discovered for another 30 years after Dr. Macklin's article. With the advantage of an extra half-century of hindsight beyond that later discovery, we might be tempted to disparage the state of medical genetics in 1929. But this last section has shown that many high-level eugenicists remained at the forefront of genetic and medical research, at a time when eugenics was still considered by many people to be a valid applied science.

While *Eugenics* may not have had the circulation of *The American Journal of Medical Sciences*, or even the *Journal of Heredity*, many of the people involved were publishing or being featured in these types of professional journals, and even being elected presidents of their professional societies, as evidenced just in this feature-article section by Henry P. Fairchild (*ASA*), Madge Thurlow Macklin (*ASHG*), Henry Goddard (*APA*), John H. Kellogg (*AMA*) and C. C. Little (who later became the first managing director of what eventually became the *American Cancer Society*).²⁵¹

²⁵⁰ Macklin's article was published as “Mongolian Idiocy: The Manner of its Inheritance,” in the September 1929 issue of *The American Journal of the Medical Sciences (AJMS)*, 178(3), 315-337. At 22 pages of densely packed text, tables, graphs and citations (with 160 numbered scholarly references), it was half the length of an issue of *Eugenics*. Macklin also had a shorter article, “Heredity in Hemophilia” in the February 1928 issue of *AJMS* (175(2), 218-223).

²⁵¹ In addition to being *AES* president (1928-29) and University of Michigan president, C.C. Little was also a vice-president of the *American Social Hygiene Association*, and a scientific director of Margaret Sanger's *American Birth Control League*; and a member of the exclusive *Galton Society*. In his capacity as managing director of the *American Society for the Control of Cancer* (later the *American Cancer Society*), C. C. Little used a hereditarian defense to

Thus the people centrally involved in the AES, ERA, or their allied organizations, and who published in *Eugenics* as part of their commitment to the movement also held academic posts at prestigious colleges and universities, leadership positions in scientific or professional societies; and they were active popular educators to boot, giving numerous addresses to teacher conventions, educational association conferences, or local civic groups. They were literally ‘pillars of their societies.’

What is more concerning to this author is that except for the top leadership in the *Eugenics* movement (people like Fairchild, Goddard or Little), much of the scientific and professional muscle of the movement (people like Dr. Binder, Dr. Macklin, Professor Sherbon, or Popular Education secretary S. Wayne Evans) are lacking any explicit popular mention in the pageant of eugenic history. This censorship is evident even in collections like the Smithsonian, or in scholarly books on the *History of Biology*, EVEN while their non-eugenic contributions were still being saluted in those same collections, scholarly books, professional societies and university histories, as at the University of Western Ontario (for Macklin), or Alberta (for J. M. MacEachran). Like the enthusiasm for *eugenics* in the Interwar period, the historical initiative to ‘Face History and Ourselves’ (see end of Chapter VI) often depends on small groups of dedicated professionals willing to expose historical skeletons in their closets. These heralds are working not for the racial betterment of future generations, but for the betterment of humanity – lest we simply paint-over the inconvenient truths that might bring controversy or embarrassment to the historical pillars of these institutions.

This concludes this section profiling the three main educational thrusts for the *Journal of Racial Betterment*: popular, formal and professional. One is left to wonder if *Eugenics* and the academics and educators who toiled for the cause would have been rewarded with continued professional prestige, teaching posts and funding grants for their eugenic research, had the economic environment not been radically changed by the Great Depression. That radical downturn in financial fortunes prompted a retooling of *Eugenics* into *People* magazine, removing the many of the last vestiges of an academic journal, as documented in the last section of Chapter IV.

dispute and delay the first medical challenges to smoking. His last professional post was as Scientific Director of the Scientific Advisory Board of the Tobacco Industry Research Committee (renamed Council for Tobacco Research in 1964) for the last 15 years of his life. Here he generously funded research that showed smoking did not cause cancer, and was copiously published in numerous medical and industry journals. His biography in the *National Academy of Sciences* reads like a veritable *Who's Who* in American science and medical research. See also Engs (2005, p. 144); as well as his extensive online presence, including a revelatory Wikipedia page.