University of Alberta

Reading Disorders of Inattention and Hyperactivity: A Normalization Project

by

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A thesis submitted to the Faculty of Graduate Studies and Research
in partial fulfillment of the requirements for the degree of

Doctor of Philosophy

Department of Sociology

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Spring 2012
Edmonton, Alberta

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For Alison

Abstract

Attention-Deficit Hyperactivity Disorder (ADHD) is one of the most common psychiatric diagnoses in children. It and its antecedents have received sociological focus since the 1970s, in studies of how diagnosis and subsequent interventions serve to manage deviant behaviours, as well as accounting for experiences of a diagnosis whose legitimacy has been consistently questioned. Taking methodological cues from Michel Foucault's exploratory endeavours, this dissertation aims to provide some clarity on sociological conceptions of disorders of inattention and hyperactivity and their relationship to other authoritative claims about such disorders. Sociological explanations of these disorders remain in tension with claims from clinical research about these disorders as objective entities as well as with skeptical claims from popular literature which deny the existence and legitimacy of such disorders. Relying on English-language textual material from the NEOS Library Consortium, focusing on the period 1970-2005, this research examines a deep and broad corpus of statements made about such disorders. By providing a close reading of programmatic texts, and by engaging in critical reflection on their entangled use of descriptive, evaluative, and prescriptive claims, this work obtains some conceptual clarity about descriptions of the mechanisms which pathologize measurable differences among individuals. This work also provides some clarity on what sorts of sociological objects disorders of inattention and hyperactivity might be. Invoking work in the philosophy of health and illness, it concludes that one can grant the existence of disorders of inattention and hyperactivity, but on the grounds that disorder is a social fact and not reducible to physiological explanations. Furthermore, the

discursive analysis provided is additional evidence in support of the claim that medicine is an institution of socialization. Treatments for these disorder aim at establishing proper behavior through the individualization of conduct. Alongside any direct manipulation of bodies and minds which occur, interventions for these disorders constitute power relations as Foucault described: the modification of the behavior of others at a distance. The goal of interventions is to modify the behavior of others at the same time as making them responsible for that altered behavior, consequently integrating them into a political economy of rule-following.

Acknowledgment

If a sociological imagination, as C. Wright Mills upheld, allows one to locate personal difficulties within interpersonal structures, the same awareness also allows one to situate personal accomplishments within the efforts of others. I have the privilege of recognizing the relationships which sustain this work.

From the beginning my ambition to make a sociological contribution covered a lot of terrain. Charles Barbour's patience and encouragement meant that in the process of thinking my way into and out of questions, those questions became a specific project. Charles taught the lessons of how to write for an audience with care and consideration, and has been a singular and indispensable example of how to be a considerate audience and interlocutor in turn. Thanks Charles.

Amy Kaler, Harvey Krahn, and Erika Dyck provided careful reading and challenging questions. Their expertise was useful not only in discussing what the project speaks to directly, but how I might connect this research to that in other fields, with those exercising other methods.

My parents, Keith and Linda, have been unfailing with their continuous and generous support. My partner, Alison, has been dependable and caring throughout this work, providing reassurance and enthusiasm during the extended processes of reading, writing, and editing.

I would like to thank the examiners for reading and responding to the dissertation, for their participation in the important examination process.

The University of Alberta and its Department of Sociology have been instrumental in achieving the goals of this research through the provision of indispensable resources.

Finally, I thank the Social Sciences and Humanities Research Council for awarding a valuable Doctoral Fellowship which enabled the production of the research contained here.

Table of Contents

List of Abbreviations

ADHD	Attention-Deficit Hyperactivity Disorder
APA	American Psychiatric Association
CDA	Critical Discourse Analysis
CHADD	Children and Adults with Attention Deficit/Hyperactivity Disorder
DSM	Diagnostic and Statistical Manual of Mental Disorders
HDA	Harmful Dysfunction Analysis
ICD	International Statistical Classification of Diseases and Related Health Problems
MBD	Minimal Brain Damage
NIH	National Institutes of Health

Chapter 1: Introduction and Context

Introduction to the Research Project

Attention-Deficit Hyperactivity Disorder (ADHD) is a developmental disorder as classified by the current edition of the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders (2000), and is a contemporary disorder of immediate consequence and concern to many. Diagnosed most commonly in children, the primary symptoms of ADHD are hyperactivity, impulsivity, and inattentiveness: being physically active at inappropriate times, frequently interrupting conversations and other social exchanges, and having difficulty organizing tasks and completing them. Secondary symptoms include difficulty with social skills, lowered self-esteem, and reduced academic performance. In 1998, the U.S. National Institutes of Health (NIH) issued a consensus statement concluding "ADHD is the most commonly diagnosed behavioural disorder of childhood, estimated to affect 3 to 5 percent of school-age children" (National Institutes of Health, 1998, p. 5). ADHD remains one of the most commonly diagnosed disorders in children in the United States and the Canadian case is similar[1] (Faraone, Sergeant, Gillberg, & Biederman, 2003).

This thesis began with my curiosity about what people have said and written about disorders of inattention and hyperactivity, disorders currently known as ADHD. This introduction discusses where my curiosity came from and how I have translated it into a research project.

Curiosity: ADHD and Dilemmas of Interpreting Behavior

Facing a disorder which current research conceives of as a deficiency of self-control, I was troubled by the strength of the popular conviction that ADHD was fictitious. This conviction has existed for as long as disorders of inattention and hyperactivity. It includes skepticism towards the claims of ADHD research, but also moral objections to labelling particular sets of behavior as disordered and to prescribing medication for modifying behavior. My apprehension with this skepticism was not a simple defense, a rebuttal that ADHD was undoubtedly

genuine. I was unsatisfied with what I felt were unsophisticated and contradictory ways of conceiving ADHD and its treatment.

Given that my experience was restricted to personal encounters with popular literature and opinion, I could stand accused of holding casual speech and folk psychology to an inappropriate standard. It is understandable that ADHD would elicit strong reactions, for it implicates child-rearing, the family, education, and medicine, and often brings their spheres of authority into conflict. Nonetheless, one skeptical stance particularly bothered me: that children who exhibit behaviours captured by ADHD criteria simply needed to exercise their willpower. In cases where children chose to be inattentive or overactive, this line of argument went, traditional forms of discipline would suffice to ensure that children would behave properly. However, many of these children reported distress at their own behavior, rather than said behavior being calculated and freely willed. There was no convincing explanation as to why the usual sanctions for norm breaking modified the behavior of some children and not others. Even in the presence of incentives to behave properly some children would report difficulty meeting the expectations they and others held for themselves. Variations in upbringing or parenting styles appeared to not explain ADHD symptoms, and explaining ADHD behaviours by invoking individual differences in temperament begged the question.

I have had some sympathy for a medical or scientific perspective on ADHD if only because it took such issues seriously, and let me think about behavior in a way which is paradoxically aligned with sociological thought. Sociological research has made it clear that behavior is indebted to circumstances: our actions do not spring fully-formed from our souls. To be able to act meaningfully in the world one must obtain particular dispositions and capacities, such as those of language and the ability to adhere to norms, and the situations in which we live shape the values by which we act. The link with scientific interpretations of ADHD is that they suggest some of the capacities crucial to socialization, such as the ability to plan and regulate one’s own behavior, could be impaired physiologically. For those who demonstrate the relevant physiological aberration,

discipline from parents and teachers would never be enough to provide the ability to act in accordance with expectations of the self and others. In such cases, medical and by extension somatic treatment could normalize people at the level of the body. Thus, the ability to become normal, or socialized, is aided by institutions such as the family and schooling, but so too by medicine. This makes possible an idiosyncratic connection with the work of sociological thinkers such as Michel Foucault and Pierre Bourdieu, who argued through other means that social life is not just something which happens between people, as in superficial exchange relations between untouchable, individual cores. Work on the body can at the same time be work on one's social being.[2] I thought this theoretical speculation could initiate an interesting view of ADHD.

My sympathy for scientific perspectives encountered dissatisfaction in its own turn. Medical descriptions of ADHD did not reflect on medicine's status as an institution of socialization. The preoccupation, instead, was defense of the objectivity of medical science in accurately defining and treating physiology it identified as dysfunctional. Proponents of ADHD's medical legitimacy dismissed critical perspectives as 'social constructionism' or 'cultural explanations'.[3] I was not seeking to defend the bulk of ADHD skepticism but did feel 'social' and 'cultural' analyses to have some general merit. Were existing criticisms of ADHD really social constructionist analyses? How could medical research invalidate sociological research, or vice-versa? Representations of the disorder as fully biological and therefore not a 'social' or 'cultural' object had a restricted understanding of what a social object might be.

Given the cycles of charges, defenses, and counter-defenses deployed in arguments over ADHD I did not wish to commit to another round of defensiveness in the name of a biomedical perspective or ADHD skepticism. Was this possible? I had a critical stance towards some of the framings of ADHD and related behaviours but claims about prevalence rates, the mechanisms by which Ritalin works, stories of impairment, suffering, and relief thereof all seemed to me defensible and tentatively compatible with claims about social norms of conduct.

My initial reflections on these incidental encounters with ADHD commentary

compelled a deliberate analysis of the things written about ADHD.

The Sociological Analysis of ADHD

The analysis I endeavoured to conduct here would not be possible in its current form without the precedent set by other work in sociology on disorders of attention, hyperactivity, and impulsivity. Such disorders have been an object of sociology since the 1970s, with Peter Conrad's 1975 article *The discovery of hyperkinesis: Notes on the medicalization of deviant behavior* (Conrad, 1975) and his subsequent publications, including *Identifying hyperactive children: The medicalization of deviant behavior* (1976) and others (Conrad, 2007; Conrad & Potter, 2000; Conrad & Schneider, 1992). Working within a sociology of deviance approach, Conrad addressed the relationship between illness and deviance through an interactionist perspective, examining the identification and attribution processes involved in ascriptions of disorder. Following Parsons' work on the sick role in *The Social System* (1951), Irving Zola on *Medicine as an institution of social control* (1972), and contemporaries, Conrad argued that illness may be determined not by any essence of the deviant individual but by the attributions made in response to that individual.

With a focus on hyperactive children, Conrad asked how social institutions conceptualize and respond to deviant behavior in ways which result in the medicalization of that behavior. Conrad cited 'clinical and social factors' in the development of disorders of hyperactivity and inattention, where the specific clinical factors were developments in pharmaceuticals and research on these children and the formalization of diagnostic categories such as "hyperkinetic impulse disorder". Specific social factors included the development and promotion of drugs for children to physicians by pharmaceutical companies in the 1960s and onwards; the medical profession's familiarity and comfort with psychoactive drugs; increased attention paid to children's mental health; and government reports in the early 1970s into these very issues. These government reports, prompted by media attention on children's use of medication, aimed at policing the behavior of physicians and pharmaceutical companies. Conrad argues this overt sanctioning tacitly allocated these behavior problems to a medical

sphere of authority.

Recent work on ADHD has studied how people interact with educational and medical professionals in the process of diagnosis (Bailey, 2009; Malacrida, 2003; Rafalovich, 2004); the values which are embedded in ADHD research (Hawthorne, 2007, 2010a, 2010b); the debates over ADHD's legitimacy and their consequences for clinical settings (Parens & Johnston, 2008, 2009; Singh, 2005, 2006, 2007, 2008); and historical accounts of medication trends, particularly in the United States (Mayes & Rafalovich, 2007; Mayes, Bagwell, & Erkulwater, 2009). Much of this research has avoided the temptation to debate ADHD's legitimacy directly; it has been able to identify how the concept of a disorder of hyperactivity and inattention emerged and to study people's experiences with the diagnosis without having to adjudicate extreme claims.

A subset of this sociological research on ADHD has examined, by its own description, 'discourse(s)' of ADHD, with some making particular reference to Michel Foucault (Bailey, 2009; Malacrida, 2003; Rafalovich, 2004). This sociology of ADHD discourse has sought to connect written material on ADHD with people's experiences of the disorder. Such research generally inquires into particular framings of the disorder; the distribution of the authority to identify, study, diagnose and treat ADHD; and how people experience their lives after receiving a diagnosis. It accesses discourse through various texts, including documents from public and private sources, and accesses people's experiences through participant observation and interviews. It looks into the connections between the two, asking the extent to which this literature shapes people's experiences and the extent to which people resist or deviate from themes in the literature.

This dissertation takes a discourse analysis approach to disorders of inattention and hyperactivity via the work of Michel Foucault, focusing on textual material. I made the decision to devote my efforts specifically to 'the discursive' to obtain a critical distance from current conceptualizations of ADHD and deviant behavior. I elaborate on these reasons further in Chapter 2, wherein I discuss my methodological considerations. The goal is to reconsider whether there are

enabling assumptions at work in discussions of these disorders, their legitimacy, and their treatment; and as a result, exercise some concerted reflection on how people write about disorders of attention and hyperactivity. If discourse does have effects in the world, and reflects the world, concerted effort on a 'thick description' of discourse is warranted. This sort of analysis is not pure abstraction; it requires an attentive and in-depth familiarity with the literature.

Research Question

Given that the American Psychiatric Association (APA) diagnostic criteria in the current Diagnostic and Statistical Manual of Mental Disorders (2000) characterize ADHD as a behavioural disorder, it is not particularly revelatory to say that treatments for ADHD seek to modify behavior. It is clear that these treatments and their evaluation rely on distinctions between what forms of behavior are desirable and what forms are not. However, there is still sufficient need for sociological research if we are to understand what forms of conduct are held to be desirable, the mechanisms by which conduct is ostensibly measured and turned into an object of knowledge, the distribution of means and strategies available to actors in these situations, and the interpretations which make encounters with such disorders meaningful and legitimate. Looking at the relationship between norms for proper conduct and interventions for disorders of inattention and hyperactivity, my research question is: *How have treatment for these disorders understood their subject, and in what way have such understandings made those treatments intelligible and legitimate?* I frame the issue as one about 'the subject' of these treatments insofar as, following Foucault, subjects are the product of knowledge about ourselves and others, knowledge which makes particular actions and strategies more or less possible. These subjects exist within an unequal distribution of access to the objects of intervention, to the construction of criteria of impairment and success, and to the ability to make and enforce claims about what actions are legitimate or obliged.

By looking at these disorders, I inquire more generally into what it is to be responsible and to have self-control, about what faculties count if one wishes to be normal and healthy, and the means by which someone deprived of those

faculties could establish them. It is easy to assume human universals of attentiveness, responsibility, and self-control, and to take them for granted, except for when they break down. It seems far easier to manage deficient responsibility, attention, impulsivity, or self-control than it is to positively define those concepts. Tentatively speaking, such concepts remain intelligible through the management of limit-cases such as ADHD, limit-cases which would otherwise show those governing concepts to be self-contradictory or untenable. From this perspective, the management of disorders of inattention and hyperactivity is not simply a confrontation with a particular disorder, but is also a grappling with normative conceptions of human behaviour more broadly conceived. A study of such disorders, only one case where these faculties seem to break down, may give some insight into those broader questions.

The Structure of This Dissertation

I conclude this introductory chapter by providing a general orthodox understanding of ADHD and its conceptual antecedents.[4] The narrative provided is a received one intended to sketch the salient aspects of the disorder. I do this as a background for the reader as the aim of this project is not primarily historical. There is no exhaustive history of these disorders, and indeed no clear idea what such a history might consist of, though there are some projects addressing salient aspects of the history of disorders of inattention and hyperactivity (Bromley, 2006; Mayes & Rafalovich, 2007; Mayes et al., 2009; Rafalovich, 2001; M. P. C. Smith, 2004).

In Chapter 2, I provide my methodological framework. Like many of the aforementioned sociologists of ADHD and discourse, I avail of the work of Michel Foucault, particularly his methodological reflections in *Archaeology of knowledge* (2002), his retrospective account of his archival and theoretical work. In it he details a way of relating to documentation which is flexible and generative; it induces a critical approach by encouraging one to suspend preconceptions about the logic of the object under study.

Chapter 3 may appear anomalous. It is prefatory, but not simply prefatory for this current work. I believe it has application to sociology of disorder, and

sociology of health and illness, more broadly. I discuss a question which arises when one researches these disorders, namely, 'is ADHD real?' In response I argue that 'disorder' is necessarily a thick concept. I demonstrate that authoritative defenses of ADHD as a real disorder, despite their commitments to physiological descriptions, defend ADHD's existence and legitimacy by invoking normative concepts. ADHD, as disorder, is necessarily the product of values about what sorts of bodies and actions are desirable. While we might still say that ADHD is real and not fictional, it is not a 'natural kind' and it is misleading to talk about disorders as ahistorical and acultural entities.

These three chapters, then, provide the historical context, the methodological approach, and the justification for my analysis. The second half of this dissertation is, in essence, a series of critical reflections on disorders of inattention and hyperactivity motivated by and faithful to the source material I have studied. Through these chapters, I providence evidence which confirms the medicalization thesis, that "medicine becomes a de facto agent of the status quo" (Conrad, 1976, p. 75) in managing deviance and ensuring the adherence of deviant individuals to social norms. This is not a critique of this process, but a description. It also demonstrates, as discussed by Foucault, the logic of modern forms of power. In the simultaneous production of the abnormal individual and the solution to the problems this individual poses, we see that what is written about these disorders is not crude control of individuals, but is "linked to a positive technique of intervention and transformation, to a sort of normative project" (Foucault, 2003, p. 50).

Chapter 4 is an introduction to what is disvalued in the case of these disorders. I discuss how attempts to measure hyperactivity as an objective aspect of behavior have been unable to do so. Without hyperactivity as the fundamental characteristic of ADHD, researchers have been forced to posit some antecedent cause which gives unity to behaviours ascribed the status of hyperactive. Current scientific research posits such a cause in physiology and specifically neurology, a defect of the ability to inhibit and initiate action. ADHD has become a disorder of 'self regulation', implicating management of the self rather than management of an

out-of-control body. However, just as the activity of hyperactivity can be evaluated only with respect to goals and expectations, so too self-regulation, and indeed this is how the American Psychiatric Association currently approaches it. By making reference to goals and expectations, which are contextually-specific and contingent, ADHD remains necessarily a sociological object, not reducible to a physiological one with ultimate cause in the brain.

Chapter 5 discusses how responses to disorders of inattention and hyperactivity have consistently demonstrated a preoccupation, then, with establishing self-regulation, but also implicating related concepts such as responsibility and agency. I describe how treatment, whether advocated by physicians, parents, or teachers, ADHD skeptics or sympathizers, has an explicit goal of the production of forms of conduct. Advocates for behavioural and pharmacological interventions justify those interventions on the grounds that they alter behavior. At the same time, those advocates disavow responsibility for altering that behavior. In doing so, they execute their effects at arms' length, in what Foucault would describe as a power relation, "a mode of action that does not act directly and immediately on others. Instead, it acts upon their actions: an action upon an action, on possible or actual future or present actions" (Foucault, 1994a, p. 137). Treatment aims to accomplish this distancing through the careful management of the self-perceptions of those treated. Whatever the causal factors for someone behaving properly, treatment aims to produce a subject who attributes behavior to the self, not treatment, and to whom others can ascribe responsibility for that behavior.

Chapter 6 looks at this in the context of pharmacological treatment for disorders of inattention and hyperactivity. Many see medication as a particular threat to attributional style: a frequent argument is that those who use medication may attribute successful conduct to medication and not themselves. While there is some research on attributional style for such disorders, arguing that those who attribute successful performance to their selves can have better outcomes, such research is fairly peripheral to the concerns expressed about attributions. Medication's threat to individual agency is a common-sense assumption, and this

literature presents the threat of displaced attribution as self-evident and axiomatic. It is used to structure the strategies available to subjects diagnosed with a disorder, to delineate the 'the rules of the game' which occur when behavior and medication intersect.

Chapter 7 takes up the question of these disorders 'as a boy's problem' or 'boyhood'. It is fairly difficult to evaluate the extent to which gender contributes to a diagnosis, and research has been both extensive in approaching the issue but also responsibly circumspect on making sweeping claims. However, there are two themes which emerge in this literature. Firstly, treatment plans, in their attempt to devote attention to girls with inattention or hyperactivity, reinscribe that marginal status. The attempt to include girls with such a disorder as an object of inquiry further reaffirms 'hyperactive/inattentive boys' as the default category. Secondly, interventions for children on the grounds of gender are also part of a 'normative project', as they unintentionally use the disorder to reinforce gender norms.

Chapter 8 summarizes the arguments presented here. I review the success of my methodological approach, and I discuss the implications for future sociological work on ADHD.

This project does not aim to test the efficacy and long-term effects of treatments recognized by medical, educational, and psychological professions, to improve reliability of diagnosis, nor to reduce over- and under-diagnosis. Neither is this project an attempt to cast ADHD as legitimate or mythical. But the project is still relevant to those activities. Though the goals of this work are modest, I would like my work to speak to those working in the sociology of health and illness, and to those concerned with theoretical questions of selfhood, subjectivity, responsibility, and agency. More specifically, and ideally, this work would engage with other researchers' contemporary work on people's experiences of ADHD and experiences of responsibility, either separately or together, and provide some reflection on the language we use to inquire into and frame those experiences.

Before moving on to my methodological approach, I provide a general description of ADHD's contemporary state, followed by the general historical context.

Disorders of Inattention and Hyperactivity: Context

Part I: What Is ADHD?

In this section I give a brief overview of current DSM criteria for the disorder, the associated forms of impairment, the most common forms of treatment, as well as current theories as to the nature of the disorder. It is difficult, if not impossible, to give an exhaustive account of ADHD, but aspects of each of the above receive further discussion in later chapters. Works such as the National Institute of Mental Health's *Attention Deficit Hyperactivity Disorder* (2003) provide a good review of the general scientific consensus about the disorder in layperson's terms.

The Diagnostic and Statistical Manual of Mental Disorders.

The text revision of the fourth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR) of the APA is a classification system for mental disorders, used in most of the English-speaking world.[5] Its intent is as follows:

> The purpose of DSM-IV is to provide clear descriptions of diagnostic categories in order to enable clinicians and investigators to diagnose, communicate about, study, and treat people with various mental disorders. (2000, p. xxxvii)

The DSM-IV-TR includes Attention Deficit Hyperactivity Disorder in 'Disorders usually first diagnosed in infancy, childhood, or adolescence' and details a scientific consensus of ADHD's characteristics. The DSM divides symptoms into two groupings: those of inattention, of which there are nine; and those of hyperactivity and impulsivity, of which there are six and three, respectively. These eighteen diagnostic criteria for ADHD give some impression of features of the disorder. Inattention is demonstrated in difficulty with following instructions and directing behavior in accordance with everyday activities, which for children occur largely during their efforts in school and at play. Hyperactivity is demonstrated by inappropriate movement, such as leaving one's seat but also includes excessive talking, again occurring in everyday circumstances. Impulsivity is demonstrated by failing to follow normal rules of social exchanges, such as waiting one's turn in line or in a conversation. The DSM contains

elaborated descriptions of these criteria as well as an accessible summary of several other aspects of ADHD, including associated features, prevalence rates, and the course of the disorder through the lifespan.[6]

A glance at the eighteen symptoms for ADHD may suggest that hyperactivity and inattention are behaviours quite common to any population. However, they all fall under 'Criterion A'. There are four other diagnostic criteria which are particularly relevant in their emphasis on impairment. Criterion B specifies that impairment from these symptoms must have appeared in early childhood, Criterion C that impairment persists across at least two circumstances, Criterion D that "There must be clear evidence of clinically significant impairment in social, academic, or occupational functioning" (2000, p. 93) and Criterion E, a differential criterion. These criteria mean that incidental manifestations of behavior, which may match some characteristics in Criterion A, are insufficient to warrant a diagnosis of ADHD.

In the discussion of 'Associated descriptive features and mental disorders', the DSM-IV-TR reports that these symptoms are affiliated with particular forms of impairment, in school, in the family, and in peer relationships. The dense summary is worth reproducing here:

> Associated features vary depending on age and developmental stage and may include low frustration tolerance, temper outbursts, bossiness, stubbornness, excessive and frequent insistence that requests be met, mood lability, demoralization, dysphoria, rejection by peers, and poor self-esteem. Academic achievement is often markedly impaired and devalued, typically leading to conflict with the family and with school authorities. Inadequate self-application to tasks that require sustained effort is often interpreted by others as indicating laziness, a poor sense of responsibility, and oppositional behavior. Family relationships are often characterized by resentment and antagonism, especially because variability in the individual's symptomatic status often leads others to believe that all the troublesome behavior is willful. . . . In its severe form, the disorder is markedly impairing, affecting social, familial, and scholastic adjustment. (2000, pp. 87–88)

Theories of ADHD.

While these characterizations have pragmatic value in identifying ADHD behaviour, they are not explanatory statements or etiological accounts. Furthermore, there is currently no 'biological test' for ADHD, a fact stated by both the DSM-IV-TR and the U.S. National Institutes of Health[7] and often reproduced by those seeking to criticize ADHD's legitimacy. However, there are theories of a physiological grounding for the disorder. Contemporary explanations approach ADHD as a problem of the executive functions of the brain; that is to say of higher-order cognitive processes involved in the regulation, initiation, and inhibition of action and thought (Barkley, 1997, 2006a). This understanding is quite nuanced and has substantial explanatory power, building on previous researchers (V. I. Douglas & Peters, 1979; Quay, 1988a, 1988b; D. M. Ross & Ross, 1982; Schachar, Tannock, & Logan, 1993) who posited ADHD not as simply a deficit of attention, but rather an inability to moderate one's response to immediate stimuli and reward.

How does this model explain ADHD? People are generally and frequently able to inhibit responses to immediate stimuli, to forego immediate pleasures in favour of delayed or less tangible rewards. For example, in the context of school, this would mean foregoing the immediate reward of watching television or socializing, and studying for the reward of a grade or a degree, a reward one may not receive for weeks or years. An individual would inhibit acting on the initial desire to do something enjoyable and would continue to study with an eye to future consequences.

This model also says that people are able to inhibit responding to immediate demands not only to obtain later rewards, but also to avoid later negative consequences. Thus, in a formal situation such as an important meeting, one may be inclined to yawn, to leave the room, or to insult the speaker, but the threat of negative consequences are sufficient for the individual to inhibit his or her actions.

However, at some point the consequences of one's actions are too far away or too minimal to bear on one's behaviour. For example, people frequently forego

the payoffs of a longer lifespan in favour of eating unhealthy but pleasurable food. Similarly, the negative consequences of an act may be insufficient to deter people from immediate rewards. The thrill of risky sports often outweighs the influence of potential disaster and injury.

According to this dominant medical model, the novelty, timing and magnitude of consequences do bear on those with ADHD, just as they would for those without the disorder. However, for those with ADHD, the magnitude of consequences, their immediacy, or the intensity of present stimuli need to be much greater to capture attention and influence behaviour. One may see ADHD as a quantifiable difference in self-regulation to the point where the experience is qualitatively different. Consider again the student with ADHD who daydreams rather than works on schoolwork. He or she is responding to the immediate reward of daydreaming against the long-term payoff of a grade or teacher approval:

> If a child is insensitive to the consequences of his actions—if he cannot connect failure to finish his homework with the likelihood of getting a poor grade—it will look to most people as if he does not care. (Diller, 1998, p. 322)

This can give one explanation of why adults with ADHD are more likely to get into car accidents, more likely to engage in tobacco use, alcohol abuse, and drug abuse in general, and to incur financial problems (Barkley, 2006b). Driving fast, using recreational drugs, and buying on credit can provide pleasure and do so relatively immediately. The negative consequences, whether they are injury, illness, debt, or social stigma, are delayed and in fact may never occur.

If a person diagnosed with ADHD were able to surround themselves with rewarding activities and the absence of negative consequences, ADHD behaviours would remain hidden:

> In environments that place little or no demands on these behavioral faculties, children with ADHD will appear less deviant and certainly be viewed by others as less troublesome than in settings or tasks that place high demands on these abilities. (Barkley, 2006c, p. 96)

A study by Lawrence et al. (2004) supported this understanding. They found

that children with ADHD performed more poorly at video games than their peers who did not have the disorder, even though outwardly all subjects appeared to be attentive to the game. While the game provides a high level of stimulation, the ADHD subjects exercised less control over their in-game actions and fared worse as a result than other children. This is to say, the outward appearance of paying attention, the children's non-disruptiveness, was no indication that the children were now willingly exercising their attention or willfully controlling their activity.

While the preceding explanation of ADHD has some support in the scientific literature since its exploration in the late 1970s, it is rarely invoked in the critical literature. I believe that it is useful to take it seriously, not just on the grounds that it is defensible but also because it further confirms the sociological insight that our behavior is not our own, separate from social relations and context. The one caveat is the emphasis this model places on the individual. Rather than drawing into question the social relations and contexts in which these behaviours lead to impairment, the predominant consequence of the medicalization of these behaviours has been to bring the individual in line with the prevailing social order.

Treatment.

In response to the impairment and disruption which characterizes ADHD, there are two common forms of treatment for ADHD: pharmacological and behavioural. These encompass a variety of methods and means. The most common pharmacological treatment is stimulant medication, whose name-brand variants include Ritalin, Concerta, and Focalin. Such medication is largely delivered orally in tablet form on a regular daily schedule.

Given the difficulties children diagnosed with ADHD experience, other interventions are frequently prescribed alongside or in lieu of medication. The other major approach advocated is behavior modification, which takes a number of forms, but has its roots in B. F. Skinner's behaviourism. Behavioral interventions most often include positive and negative reinforcement techniques meant to elicit positive behavior and reduce or extinguish undesired behavior, but practices of organization and planning are a frequent recommendation as well. One aim of behavioural treatment is to develop skills which, due to ADHD, some

children have not developed sufficiently. For example, while medication may make it possible for children to pay attention, to get along with peers, or to exercise organizational skills, those skills themselves frequently have not been established.

Part II: Historical Context

While ascriptions of inattention and hyperactivity may have always existed, the understanding of those behaviours as disordered has not. There has been substantial variation over what to name these behaviours, what behaviours warranted a name, and whether one was naming a disorder, a symptom, or a set of symptoms. At the most general level, 'disorders of inattention and hyperactivity' refers to behavior manifested predominantly in children, which has obtained some professional medical interest, and which appear to cause disruption or harm in educational and familial contexts, in a loosely-consistent conglomerate of diagnostic criteria and observed behavior. For these disorders, there is a widely accepted and widely-reproduced history, one which places their origins at the start of the 20th century. I reproduce this history here to provide a general context for the works discussed in later chapters.

Writing prior even to the Attention-Deficit Hyperactivity Disorder nomenclature, DeLong said there were "at least 37 different terms" (1972, p. 179) for the condition of hyperkinetic children, and Winchell's bibliography *The hyperkinetic child* (1975) listed 75 affiliated terms. After some varied research and terminological diversity in the 1930s to the 1950s, disorders of hyperactivity and inattention proper emerge in their own right in the 1960s and 1970s, at the same time as their codification in classificatory manuals such as the DSM and the International Statistical Classification of Diseases and Related Health Problems, rather than as signs and symptoms of another condition.

Most accounts take the 1902 lectures of English pediatrician Dr. George F. Still (1902a, 1902b, 1902c) as a starting point. Speaking to the Royal College of Physicians of London, Still gave an analysis of children who came under his care at King's College Hospital, including 23 cases of what he called "an abnormal defect of moral control", where some children failed to exercise "the control of

action in conformity with the idea of the good of all" (1902a, p. 1008). These children failed to adhere to standards of proper conduct, behaving quite violently, rudely, and impulsively, exhibiting noncompliance with social standards of proper conduct. However, Still's importance is observable only retroactively; no medical community took up the problem of attention deficits or hyperactivity directly from Still's lectures.

A global pandemic of encephalitis lethargica, a neurological illness, affected the United States from 1917 to 1918. While this serious illness could prove fatal, it also prompted research on children who suffered behavioural and cognitive impairment after surviving the illness. Dr. Leslie B. Hohman, working at Johns Hopkins Medical School, named the signs these children exhibited 'Post-encephalitic behavior disorder' (Anastopoulos & Shelton, 2001). Franklin G. Ebaugh, at Philadelphia General Hospital, studied children suffering the consequences of encephalitis, and we can see in his descriptions behaviours similar to those which define ADHD:

> Normal children who were well adjusted in school and home changed abruptly to a state of hyperkinesis, characterized by transient periods of talkativeness, tension states and emotional outbreaks often leading to general incorrigibility and inability to remain in school. These children were uniformly restless and overexpressive in their activities. (Ebaugh, 1923, reprinted as Ebaugh, 2007, p. 336)

Further research included that of Eugene Kahn and Louis Cohen (1934), who attributed similar cognitive and behavioural impairment to brain damage, calling it 'Organic Driveness'; and Childers (1935) and Levin (1938) who both drew attention to hyperactivity, with Levin the originator of 'Restlessness Syndrome'.

At the same time, Kurt Goldstein, a German neurologist, was studying WWI veterans with brain injuries, finding that they were quite distractible and could not focus on relevant stimuli (Malacrida, 2003). Physician Alfred A. Strauss and colleague Heinz Werner, German emigrants working in Michigan, sought to generalize Goldstein's findings to children, asserting that children with brain injury had more signs of distractibility than those without. They developed means

for identifying and teaching these children, who they categorized as suffering from 'Strauss' syndrome'. Later Strauss collaborated with Laura Lehtinen and in their influential *Psychopathology and education of the brain-injured child* (1947), like their counterparts of the 1930s, they reaffirmed the deduction of brain damage from problems of cognition and behavior. Rather than identifying brain damage and studying resulting impairments, they asserted that abnormal behaviours or cognitive problems could be evidence in themselves of particular brain damage even absent other evidence for said damage. In *Psychopathology* they concede their emphasis on brain-based pathology, not only because that is where their expertise lies, but also as a reaction to then-prevalent psychoanalytic theories which they found to unjustly blame parents and which were largely ineffective in developing successful treatment of the behaviours in question. From their work came the term 'Brain-Injured Child Syndrome' which then became 'Minimal Brain Damage Syndrome' (Anastopoulos & Shelton, 2001), later Minimal Brain Dysfunction (MBD). MBD would be the covering term for disorders of inattention and hyperactivity until the DSM-III in 1980 which introduced 'Attention Deficit Disorder', even though MBD was much broader in scope, sometimes used to include learning disorders as well as behavioural problems.

One notable site of research was The Bradley Home, for children with nervous disorders, which opened in Providence, Rhode Island in 1931. The Home was concerned with social maladjustment in children, and operated at the intersection of moral treatment and neurological analysis. The Home's director, Charles Bradley, reflected this diversity in his attempts to restore social adjustment and proper socialization. For example, he used an amphetamine compound, Benzedrine, to treat behaviour disorders in some of these children. He found that they performed better academically, but this was not easily separable from improvements in adherence to the norms of classroom conduct. Historian Elizabeth Bromley (2006) argues that this was not problematic for Bradley, for part of the task of the home was not simply to aid intellectual development, but to restore children to functionality in normal environments. However, she argues that

when others took up Bradley's use of technical means and neuroanatomical insights into the disorder, they did so without incorporating the social backdrop and concern with normative behaviour that framed Bradley's efforts at the Home, instead seeing Bradley solely as a psychopharmacological pioneer.

In 1957, Maurice Laufer, the subsequent director of what became the 'Emma Pendleton Bradley Home', along with associates Eric Denhoff and Gerald Solomons, called the behaviours of similar children *hyperkinetic impulse disorder*, with the children so described experiencing difficulty at home and at school:

> In brief summary, hyperactivity is the most striking item. This may be noted from early infancy on or not become prominent until five or six years of age. There are also a short attention span and poor powers of concentration, which are particularly noticeable under school conditions. Variability also is frequent, with the child being described as quite unpredictable and with wide fluctuations in performance. The child is impulsive and does things "on the spur of the moment," without apparent premeditation. Outstandingly also these children seem unable to tolerate any delay in gratification of their needs and demands. They are irritable and explosive, with low frustration tolerance. (Laufer, Denhoff, & Solomons, 1957, p. 38)

From 1955 onwards, there was some success of psychoactive medication in treating the mentally ill and being accepted as a treatment by physicians and the public, what Conrad and Schneider called "the great pharmaceutical revolution" (1980, p. 158). In 1958, Leon Eisenberg and Keith Conners, under the auspices of the NIMH, developed one of the few research programs on medication and children at the time.[8] While physicians had been prescribing the Benzedrine which Bradley found successful for hyperactivity, concerns over its abuse provided an opportunity for another medication to intervene. In 1944, pharmaceutical company CIBA made the stimulant methylphenidate under the trade name Ritalin, initially targeting depression and narcolepsy. In 1961 the U.S. Food and Drug Administration approved Ritalin for children with behavioural problems, and with intense marketing to physicians, the drug attained wide use.

Outside of medical and pharmacological research itself, cultural and political shifts around mental illness and children's mental health opened up a space for ADHD. Public demand in the 1960s to 1970s plus federal funds meant more special education services for children (Safer & Allen, 1976). There was a growing interest in child psychiatry specifically, as the baby boom generation provided a growing young population. Coupled with this, baby boomers had participated in education to unprecedented levels and transmitted the importance of education to their children. However, this burgeoning population with its dedication to schooling was challenging the U.S. education system, with high levels of enrolment, coupled with a smaller labour pool of teachers due to inflation, and increasing expectations for the many new mothers to stay at home rather than teach (Smith, 2004). In 1963 parents and professionals founded the Association for Children with Learning Disabilities (now the Learning Disabilities Association of America) familiarizing and legitimizing learning disorders and forms of treatment, amongst both the public and politicians.

By 1966 the focus on children's learning disorders butted up against ambiguity in diagnosis. While we may consider the diagnosis of "hyperkinetic reaction of childhood" in the DSM-II in 1968 to be the first DSM formulation of a disorder of attention and hyperactivity, MBD remained the dominant term, in part because MBD was still general enough to cover a multitude of signs and forms of impairment. There is some ambiguity around where MBD originated:

> In 1963, when the 91st Congress passed the Developmental Disabilities Assistance and Bill of Rights Act (P. L. 88–164), scholarly interest in minimal brain damage and brain dysfunction had moved to the level of public policy, as taxpayers' dollars became available for children who had learning disabilities. In that same year, the Oxford International Study Group in Child Neurology concluded that minimal brain damage should be discarded and replaced by "minimal brain dysfunction," primarily because brain damage should never be inferred from behavioral signs alone. The group also concluded that children with minimal brain dysfunction comprised a heterogeneous group with several possible syndromes or clusters. Interestingly, in 1963, when the Easter Seal Foundation sponsored a conference with the U.S. Health Services' Division of

> Chronic Diseases, the conference also adopted the term "minimal brain dysfunction." It then listed 99 symptoms and signs exhibited by children who were so diagnosed. There was still no consensus on patient presentation. (Resnick, 2000, p. 5)

The 1963 conference Resnick mentions, delivered by the U.S. Public Health Service and the Easter Seals,[9] resulted in a 1966 report led by Sam D. Clements. This report describes MBD as a disorder of

> children of near average, average, or above average general intelligence with certain learning or behavior disabilities ranging from mild to severe, which are associated with deviations of function of the central nervous system. These deviations may manifest themselves by various combinations of impairment in perception, conceptualization, language, memory, and control of attention, impulse, or motor function. . . .
>
> These aberrations may arise from genetic variations, biochemical irregularities, perinatal brain insults or other illnesses or injuries sustained during the years which are critical for the development and maturation of the central nervous system, or from unknown causes. (Clements, 1966, as cited in Hallahan & Mercer, 2002, p. 24)

However, later on, Clements himself said "Minimal Brain Dysfunction was never intended as a static concept or set of conditions when presented ten years ago [in 1962]" (Clements, 1974, p. 36). He argued that it was simply meant to cover the causes of what brings children to physicians when they were not developing according to expectations.

Federal disability law in the U.S. further altered educational resources available for children identified as having ADHD. Children with ADHD are covered by Section 504 of the 1973 Rehabilitation Act, legislation which addresses the civil rights of individuals with disabilities by prohibiting discrimination towards such individuals by any program which receives federal funding. Under Section 504, individuals with demonstrated impairment can receive reasonable accommodations for their disability. Children with ADHD are potentially but not automatically covered by Section 504. A team of school district

professionals, which may include teachers, administrators, counsellors and school psychologists, determine eligibility according to the district's standards.

These legislative changes occurred at the same time as rising interest in these disorders. Weiss (1985) noted rapid increase in publication of articles on hyperactivity being published between 1977 and 1980. In the 1970s, the most significant event casting these disorders into the public light was a *Washington Post* report on Omaha schoolchildren's use of medicine for behaviour modification. This report and the public response it engendered prompted a U.S. congressional investigation on schoolchildren's stimulant use. This influenced changes to the Comprehensive Drug Abuse Prevention and Control Act over the classification and control of various drugs, and it was in the wake of this public attention that the polemic tone of skepticism which persists to the present began.

> During the 1960s and early 1970s, children who were impulsive, inattentive, and hyperactive were typically served as "learning disabled" if they were a few years behind their grade placement in academic achievement. However, during the last two decades, the field of special education has restricted the definition of *learning disability* to children who manifest a "significant discrepancy" between intelligence and achievement. . . . Clearly, some children who were impulsive, inattentive, and/or hyperactive did not meet the new criteria for learning disabilities . . . .
>
> Given that the new definition of *learning disability* did not fit these children, the application of a label from the American Psychiatric Association seemed to be most expedient. (W. N. Bender, 1997a, p. 15)

This refinement fit closely with clinical efforts, as researcher Virginia Douglas and her team at McGill University were very influential in shaping the understanding of disorders of inattention and hyperactivity as a problem of inattentiveness and impulse control, rather than a hyperkinetic disorder of an excess of energy (V. I. Douglas, 1972; V. I. Douglas & Peters, 1979).

> Douglas' work focused on the types of attentional problems exhibited by hyperactive children and established the primacy of deficits in attention over that of motor hyperactivity in diagnosis. Hence the term "Attention Deficit Disorder"

was coined. (Frick & Lahey, 1997, p. 23)

The publication of the third edition of the DSM in 1980 contained 'Attention Deficit Disorder' proper for the first time, and the changes in this new edition partly reflected psychiatry's prioritizing of a biomedical model over a psychodynamic model, and partly the Manual's emphasis on description and categorization over etiology.[10] The revised version, DSM-III-R (1987), named the disorder Attention-Deficit/Hyperactivity Disorder, treating hyperactivity as a characteristic secondary to the fundamental problem of impulse regulation. In here we have the 'holy trinity' (Anastopoulos & Shelton, 2001, p. 10; T. E. Brown, 1995, p. 93) of symptoms: hyperactivity, inattention, and impulsivity.

In the 1980s, there was increased attention both in the support of, and to the detriment of, these disorders. Psychiatrist Thomas Szasz and the Church of Scientology established the Citizens Commission on Human Rights, a "non-profit, public benefit organization dedicated to investigating and exposing psychiatric violations of human rights" (CCHR Canada, 2011). The Citizens Commission on Human Rights is staunchly critical of psychiatric drugs and considers psychiatric diagnosis fraudulent and backed parents' lawsuits against the manufacturer of Ritalin in the early 1980s, claiming the drug was harmful to children. At the same time, national talk show hosts and magazines were featuring stories critical of the harm and prevalence of such stimulant medication (Safer & Krager, 1992). Conversely, in 1987 parents and psychologists formed Children and Adults with Attention Deficit/Hyperactivity Disorder (CHADD), a U.S.-based non-profit advocacy group that pushes for public and legislative recognition of ADHD as a legitimate disorder, as well as for continued funding for medical research on ADHD and for increased access to medical professionals.

Since 1991 ADHD has been an Other Health Impairment in the Individuals with Disabilities Education Act and thus children diagnosed with ADHD are eligible for support personnel, facilities, and other resources; and school psychologists help decide whether a child fits this category or not. According to Jim Swanson, an ADHD researcher involved with professional groups that pushed for legislative changes, "this was the single biggest factor in the explosion of

ADD diagnoses and Ritalin use in [the U.S.]" (Diller, 1998, p. 315). By this time, stimulant use among U.S. children with attention disorders had increased exponentially since the 1970s (Safer, Zito, & Fine, 1996). Robin (1998) ascribes the increase in medication to several causes, including more attention paid to girls and adults exhibiting ADHD symptoms; to those exhibiting inattentive rather than hyperactive behaviours; more people being prescribed the medication through to their teens; and an improved, though not universal, positive public reception for this treatment. The broadening of the potential population for ADHD and medication treatment was reflected in changes to CHADD's name in 1993, adding 'adult'; and in 1993 the Attention Deficit Disorder Association "sponsored the first national conference on ADD in adults" (Nadeau, 1995a, p. xv).

Genetic and biological explanations increased in prominence in the popular literature in the early 1990s, attributable in part to the work of Alan Zametkin and colleagues, who conducted brain-imaging studies of children with the disorder, finding differences in those diagnosed and those not, suggesting a physiological indicator for disruptive behavior (Schmitz, Filippone, & Edelman, 2003). However, the conclusions of the work of Zametkin et al. have not been replicated consistently.

Beginning in 2000, a number of law firms initiated class-action lawsuits against Novartis, Ritalin's manufacturer at that time, for conspiring to mislead parents and physicians about ADHD so as to increase the market demand for their drug. Although judges ultimately dismissed the lawsuits, the lawsuits played on and contributed to divisive popular sentiments about ADHD and its medication, as they did in the 1980s. The U.S. Drug Enforcement Agency estimates doctors issued 11 million prescriptions of the stimulant methylphenidate in 2000 (Woodworth, 2000). In 2002 a 'consortium of international scientists' led by Russell Barkley released an International Consensus Statement on ADHD in defence of a medical understanding of the disorder, critical of what it considered politically-motivated skepticism towards the scientific reality of ADHD (Barkley et al., 2002).

[1] Research on Canadian incidence and prevalence rates is difficult to assess, focusing for example on particular provinces such as Quebec (Breton et al., 1999) and Ontario (Szatmari, Offord, & Boyle, 1989). Also, the operationalization of 'attention disorder' is not consistent throughout the research. Rates of attention problems may be obtained from self-reporting, or parental observation and judgment of hyperactive behaviour, or physician-reported diagnoses, making general and comparative assessments difficult. However, in no case do the claimed rates suggest that the Canadian case is negligible.

[2] I am not intending to make a sociobiology argument as in, e.g., E.O. Wilson, where biology explains social life. It is a more general claim that the materiality of individuals is not exempt (how could it be?) from 'the production and reproduction' of social life. The goal is not to colonize a social sphere with physical explanations, but to recognize the physical sphere as one more subset of social life. I discuss this more in Chapter 3 on the ontology of disorder.

[3] See for example a news story discussing the work of Matthew Smith, historian of attention disorders, and the response by physicians: "Smith is not the first researcher to claim ADHD is a social construct, an argument [Dr. Atilla] Turgay says the profession 'has already dealt with and discarded'" (Ogilvie, 2009).

[4] A note on terminology: The 20th century has seen a number of terms and disorders emerge around symptoms of inattention and hyperactivity. In this dissertation, I largely use the term ADHD to cover such disorders, and in doing so include 'Attention-Deficit Disorder' (ADD) with or without hyperactivity, as well as 'Minimal Brain Dysfunction'(MBD) when MBD was used in the 1970s to refer to similar behaviors and symptoms as those of ADHD. This however, runs the risk of supposing some constant entity to the analysis; in linking these disorders through this term I am expressing a commitment to the attempts to refine symptoms which demarcate one set of impairing behaviors from another. That is to say, the diagnostic criteria for disorders of attention and hyperactivity have been relatively constant from the DSM-III in 1980 to the current DSM-IV. Hyperactive children prior to 1980 also exhibited symptoms which overlapped closely with those of children receiving a diagnosis of ADD or ADHD. The presumption is that the clustering of symptoms actually denotes a consistent entity, and that those symptoms which have been discarded as irrelevant to a diagnosis have been insignificant in practice as well - both the term and those captured by criteria are therefore just and as reliable as possible. It does not appear that there have been major cleavages in the history of refining the understandings of such a disorder - ADHD is not the synthesis of what were thought to be two distinct disorders nor the halved portion of what was originally seen as a single disorder. However, the question becomes much less clear prior to 1970, when MBD was greater in scope, and hyperactivity vacillated between a problem in its own right and a symptom of behavioral and learning problems.

[5] The World Health Organization (WHO) also produces the International Classification of Diseases (ICD), currently in its 10th edition. The ICD is used for classification of disease both physical and mental. The WHO is preparing a revision of ICD, with an International Advisory Group overseeing the components on mental and behavioural disorders. While the ICD has a different mandate and intent than the DSM, the International Advisory Group nonetheless recommended an "ICD-DSM Harmonization Coordinating Group" (International Advisory Group for the Revision of ICD-10 Mental and Behavioural Disorders, 2008, p. 3) to aid their production of the ICD-11.

[6] While it is common in the literature discussing ADHD to reproduce the diagnostic criteria, I have not done so here. This is for the reason that providing that list of criteria, without context, without the elaborated accounts of descriptive features and so forth, does not do justice to the DSM presentation of ADHD, and such a list without context has little utility.

[7] The DSM-IV-TR says

> There are no laboratory tests, neurological assessments, or attentional assessments that have been established as diagnostic in the clinical assessment of Attention-Deficit/Hyperactivity Disorder. (2000, pp. 88–89)

And the NIH Consensus Statement on ADHD reports "The diagnosis of ADHD can be made reliably using well-tested diagnostic interview methods. However, as of yet, there is no independent valid test for ADHD" (National Institutes of Health, 1998, p. 7).

[8] A conference from 1958 on drugs and children:

> I like to think that the conference got Leon Eisenberg interested in drug research and that he recruited Keith Conners, making a direct link from that conference to this one. Certainly the Conners-Eisenberg program of drug studies in children is the oldest and most productive one NIMH has supported. (Cole, 1974, p. xi)

[9] Known prior to 1952 as The National Association for Crippled Children and Adults.

[10] While there is general consensus that the DSM-III reflected and inaugurated a shift in the Manual's general status, DSM-III's significance regarding shifts in psychiatry is more contested and developed than I have indicated here.

Chapter 2: Method - Discourse

Introduction to Discourse

Disorders of inattention and hyperactivity have been continually interpreted and reinterpreted, in informal conversations, among parents, in newspapers, in the classroom, in academic journals and at conferences. The publication rate of ADHD-based research has grown substantially in the last 30 years (Barkley, 2006d; DuPaul & Stoner, 2003). It may seem overly ambitious to study what people have written about disorders of inattention and hyperactivity if one means all the statements made in conjunction with ADHD and related disorders. In this chapter I provide the framework for delineating what my object of study will be and how this will satisfy the research goals discussed in the introduction. I discuss other sociological work on 'discourses' of ADHD and situate my work in relation to it. I work my way through my commitment to Foucault and his reflective grappling with methodology. I conclude with an account of the selection of material upon which I have relied.

This project engages in discourse analysis of textual material. While this project has an affinity with Critical Discourse Analysis, this project takes its primary methodological cues from Michel Foucault's *The archaeology of knowledge* (2002). Foucault raises the question of what constitutes a field or unity of statements and confounds easy answers to such a question. He discusses suspending the received ways of organizing statements in order to look at them anew. One intended consequence of troubling one's assumptions about the organization of material is to reinvigorate what can be said, to see it with new eyes, to draw connections which usual categorizations occlude. Rather than taking the unity of science of ADHD as the necessary unity for grouping statements together, one can reconsider the logic which makes those statements appear as a unity.

The Research Question

One of the means by which disorders of inattention and hyperactivity and their subsequent treatment take shape is through definitions, descriptions, and

arguments. My interest is not primarily whether these claims are true or false, though I do have an interest in this; I am interested in the diversity of what people have written about disorders of inattention and hyperactivity, particularly how they represent people diagnosed with ADHD, how they represent disorder, and how they authorize their descriptive and prescriptive claims. Thus the research question as formulated in Chapter 1: *How have ADHD treatments understood the ADHD subject, and in what way have such understandings made those treatments intelligible and legitimate?*

Consider three prescriptions, parts of different treatment plans for children with ADHD:

> The therapist stages the "Big Dump." The adolescent brings the backpack to a session and dumps everything out on a table. This should be done in a light-hearted and humorous way, to defuse resistance. The therapist explains that the goal is to find a simple, efficient organizational plan for the backpack. . . . Then the adolescent is assigned the task of dumping and reorganizing the backpack, under parental supervision, at home three to four times per week. (A. L. Robin, 2006, pp. 518, 520)

> *If you can afford to, buy books children can read and enjoy*. Build a library for them. Teach them to treat books with tenderness and love. Teach them that books are sacred treasures. (Stein, 1999, p. 156)

> For the individual child, a methylphenidate preparation should be titrated through low (0.3–0.5 mg/kg/dose), intermediate (0.6–0.8 mg/kg/dose), and high (0.9–1.2 mg/kg/dose) doses on a weekly basis, and efficacy, tolerability, and side effects should be monitored. . . .
>
> Once an effective and well-tolerated stimulant dose is achieved, routine monitoring is recommended. (Connor, 2006, pp. 632–633)

I ask how ADHD diagnoses and these consequent interventions are all meaningful and possible, where people engage in backpack surveillance, stimulant prescriptions, research programmes, and more. Programmatic texts make medication and behavioural treatment make sense, just as they do institutional responses, such as the physical restructuring of classrooms and study

spaces, the management of distractions in the environment, and obligations on the part of parents and spouses. ADHD enables the defense of children against real and perceived threats, the writing of books, research programmes, interviews, the production of news stories, and more, none of which would be possible in the same guise if it were not for ADHD as a problem to be solved or entailing obligations on the part of various agents.

A sociological interest in what people have written is not new; neither is an interest in what people have written about ADHD. There is the dual question of why discourse analysis is a useful methodology and why it might be useful for the study of ADHD.

Why Discourse Analysis?

As with other social facts, practices of meaning-making such as writing reveal patterns of social relations which persist beyond the individuals which instantiate those relations. These practices are generative and constitutive of social life. I consider this a broad and received definition of *discourse,* one which discourse analysts may refine or qualify according to their particular circumstances. Discourse includes legal utterances and inscriptions, scientific rhetoric, signage, non-linguistic practices of signification, and more, to the extent they are involved in the production and reproduction of social life. A clear example of discourse is J. L. Austin's account of performative utterances (1975), such as the expression 'I do' which when uttered at a wedding brings a particular state of affairs into being. In this way, discourse operates on the same immanent level of other social phenomena such as kinship relations, exchange relations, political structures, and so forth. It contrasts with a strict 'pictorial' account of language, which treats language as a more or less accurate re-presentation of the world while being independent of it (Wetherell, 2001).

While discourse analysis can take many forms, Critical Discourse Analysis (CDA) (Fairclough, 1995, 2001; Gee, 2005) is the bridge between general conceptions of discourse analysis and the Foucault-influenced approach I take in this research. The major distinguishing feature of CDA is the emphasis on connecting patterns of signification to power relations. People use discourse to

achieve their ends, and those ends are themselves shaped by discourse, and this mutual interplay operates on and within the material and political conditions of discourse's production. In this way, one can analyse a corpus of signification according to the goals of its production and the constraints and incentives which shaped its performance, as well as the effects this discourse had consequent to its dissemination. Such an analysis bridges the gap between macro-level institutional structures and the micro-level utterances that enact and maintain those structures.

Teun van Dijk (1993) presents CDA as fundamentally responsible for addressing abuses of power, "focusing on the role of discourse in the (re)production and challenge of dominance" (van Dijk, 1993, p. 249), more succinctly the "discursive reproduction of dominance" (1993, p. 259), through three mechanisms. Firstly, discourse-based dominance unjustly 'manages the minds of others', by determining the salient objects and frames for social encounters. Secondly, it controls people's actions, by restricting and controlling who can make an utterance and have it count as legitimate. Thirdly, it 'naturalizes inequities', by presenting the previous two moves as part of the natural world, as taken for granted rather than a product of the constructed world of discourse. Thus, discourse analyst James Paul Gee states "politics is part and parcel of using language . . . . Far from exonerating us from looking at the empirical details of language and social action, an interest in politics demands that we engage with such details" (Gee, 2005, p. 2).

Discourse Analysis and ADHD

Studies of the 'discourse(s)' of ADHD include quantitative content analyses of popular periodicals (Schmitz et al., 2003), analysis of day-to-day discussions of ADHD, including media and face-to-face communication (Danforth & Navarro, 2001); the reception and dissemination of 'official discourses', namely educational and scientific discourse (Navarro & Danforth, 2004), and "systematic metaphor analysis" (Danforth & Kim, 2008, p. 52) of popular works, in this latter case three books written by a prominent ADHD researcher and psychiatrist. Other extended works are Claudia Malacrida's *Cold comfort: Mothers, professionals, and Attention Deficit Disorder* (2003), Adam Rafalovich's *Framing ADHD*

children: A critical examination of the history, discourse, and everyday experience of Attention Deficit/Hyperactivity Disorder (2004), and Simon Bailey's *Producing ADHD: An ethnographic study of behavioural discourses of early childhood* (2009). Each of these latter works explicitly describes its approach as discourse analysis, at least in part, and each aligns itself with Michel Foucault's work.

These current works on ADHD discourse posit, on one hand, something understood as 'ADHD discourse', and on the other, 'lived experience'. Their research task is to represent discourse and experience adequately and analyse their interaction, granting that such interaction may very well be complex. From this point of view, discourse about ADHD offers a frame to individuals: this frame can be accepted without qualification or awareness; it can obtain approval; it can be resisted; it can be transformed. Discourse has a coercive or productive capacity, which, *qua* Foucault's description of power,

> it incites, it induces, it seduces, it makes easier or more difficult; it releases or contrives, makes more probable or less; in the extreme, it constraints or forbids absolutely, but it is always a way of acting upon one or more acting subjects by virtue of their acting or being capable of action. (Foucault, 1994a, p. 138)

From this perspective, discourse is to be judged by its effects, by audience reception, and how audiences incorporate or resist the messages of discourse and react to it critically. Thus, in her research on Canadian and British mothers and children, Claudia Malacrida writes "I have taken up a Foucauldian archaeology to examine the ways that language imposes itself on given systems of thought and gives rise to discursive practice and social effects" (Malacrida, 2003, p. 47). Malacrida focuses on how these mothers and children negotiate claims about ADHD made by governmental, education, and psychiatric authorities, what she calls 'dominant' discourses. One of her objectives was to ask mothers how they navigated these authoritative representations of ADHD and the strategies for action such representations engendered. Discourse, in this analysis, is at the social "meso-level" and has the ability to structure the social "micro-level" of subjective experience (Malacrida, 2003, p. 49).

Adam Rafalovich undertakes interviews with "parents, teachers, clinicians, and children" (2004, p. 12) affected by ADHD with the aim of connecting ADHD discourse to "everyday experience" (p. 15). He writes that the disparate claims produced around ADHD demonstrate disparate interpretations and therefore this lack of consensus warrants examination: "The historical and contemporary discourses that have constituted previous and present notions about ADHD require meticulous scholarly treatment" (p. 7). Addressing an objection that a genealogy of the discourse of mental illness does not account for "lived social reality" (p. 10), he sees interviews as augmenting the validity of claims made through analysis of textual material. He explicitly shares Peter's Conrad's symbolic interactionism influence, asserting "the way people organize themselves around deviance and, in the case of ADHD, medicalize childhood misbehaviour is largely a function of the discourses that have shaped their professional and personal perceptions" (p. 18).

Bailey (2009) also links discourse to everyday experience, conducting participant observation as a teaching assistant to children between the ages of five and seven in rural England. Citing *Archaeology of knowledge*, he says about the goals of his research:

> There seemed great promise in trying to map some of the process of discourse, to witness its constitutive force in everyday action. (2009, p. 41)
>
> The attempt is to de-naturalise the physiological narrative of ADHD by focussing on the means by which objects of knowledge are formed through everyday social and cultural codes. These codes are described within discourse analysis as *texts* and ethnography offers the opportunity to witness the production and reproduction of different texts. (p. 50)

These studies grant some autonomy to discourse, in the sense that discourse is an entity with causal power: discourse does things to people, with varying degrees of success. There is, however, as they recognize, another aspect to discourse, and this is what I am here taking up.

The Turn to Foucault

As suggested above, studies of discourse often connect textual material to non-textual material. The primary focus of discourse analysis then is not syntax but rather the relationship between text and non-text. Thus, one discursive approach is to study the methods of production of discourse. For utterances to be made and books to be published, there are various conditions to be satisfied: a book has to fit into a political economy of what is saleable, or a journal article has to fit into an academic political economy of standards of evidence, of participating within shared conceptual structures. One can thus ask how an utterance is a function of someone's theological background, of their social obligations, or of their position in the fight for scarce resources. In this form of analysis, we explain discourse in reference to antecedent social circumstances.

Another approach is to study audience reception. Discourse presents schemata of meaning, and people bring conceptual and material resources to bear on what they read and hear, and in doing so they may resist or acquiesce to the framing provided. This approach to discourse would be an ideological approach, in which statements frame a subject's relation to his or her circumstances, of which the audience may be aware or not. In this approach, ideology can be more or less hegemonic, measured according to the fit between the audience and the message.

Foucault's work on discourse has an affinity for those above approaches, but I believe that it also offers an alternative. He argues that discourse has a particular logic to it, one for which conditions of production, narrowly conceived, or audience reception, do not account. If we operate with the assumption that relations of signs are explained in reference to something pre-existing them, then discourse is always a dependent phenomenon, always a manifestation of what is behind it. Studies of discourse, then, would always be studies in the last instance of something other than discourse, whether that is the economy, the human subject, or otherwise. However, any prior order which accounts for signification, for Foucault, is historical and contingent, not the bedrock which determines human practices. This may be why Foucault has had to renounce his characterization as a structuralist on several occasions. If we are to study

discourse, then we should see it as some extent irreducible: When Foucault says "I have undertaken, then, to describe the relations between statements" (2002, p. 34), it is not about writing a history of the referent, of the object, of uncovering 'ADHD' at the background of the statements made. It is not about writing about things prior to discourse, but about things of discourse. It is not judging discourse by its relation to the motive force which animates it from without, but judging discourse by its relation to its own rules.

> What we are concerned with here is not to neutralize discourse, to make it the sign of something else, and to pierce through its density in order to reach what remains silently anterior to it, but on the contrary to maintain it in its consistency, to make it emerge in its own complexity. (Foucault, 2002, p. 52)

This is why Foucault's primary concern is not audience reception, in the sense of ideological acquiescence or resistance, even though, as in the above works, it is compatible with those. To evaluate acquiescence or resistance is to posit some tentative unity of ADHD discourse, a dominant message or interpretive field, with which the researcher then compares people's actions and reflections on that discourse. However, this puts the researcher in a relationship to discourse counter to the one I here aim to inhabit. If the primary goal of analysing textual material is to obtain a received way of thinking which that work expresses, in order for a later comparison to the work's reception, then the goal of reading discursive materials is synthetic, rather than analytic.

As this project is exploratory, its aim is not achieved in being a descriptive exercise, a direct restatement or cataloguing of statements. My motivation is a curiosity about what people have said about ADHD. It is also interested in making a positive contribution to how one might conceive of and talk about ADHD. Consequently, the project aims to be documentary and exploratory, as well as provide a novel interpretation. My larger aim is to provide some critical and theoretical reflection on how social science might conceive disorder and also how it can evaluate sociological questions of ADHD. The point is not to answer existing questions, such as the side effects of Ritalin or who first identified hyperkinesis as a distinct entity, but to provide a framework for asking new

questions. My hermeneutic method is a particular kind of scholastic labour of reflection,[1] expended on constructing novel interpretations of ADHD. This requires a closeness with what is currently said, but also a critical distance. The omission of an approach such as interview methods or participant observation, that is to say at the social micro-level, is in order to specialize one's efforts on discourse specifically; while such research cannot subsequently make the same claims about the relationship between current practices and audience reception, the goal is to take up in a more concerted way the critical task of discursive scrutiny and dissection.

I am interested in the diversity of statements made in the ADHD context, including statements which are incidental, digressive, or peripheral. Against a perspective which would separate true from false statements, or relevant from irrelevant statements, I am interested in documenting statements which unexpectedly persist across disparate contexts, as well as statements which are notable for their individual peculiarity, pursuing the "systems of dispersion" (Foucault, 2002, p. 41) of what is written. This is achieved by reading across the grain, through the juxtaposition of disparate forms of literature (*inter*-) which alerts one to similarities, and through the close reading of literature (*intra*-) for the unexpected, the rare, the inconsistent. When ADHD provides an opportunity for prayer (Stein, 1999, p. 166) or for justifying traditional gender roles in employment (Stevens, 1997, pp. 23–24), or to provide an anecdote about a "karate master" (Bellak, 1979a, p. 69) such statements seem properly contingent: they are not essential to ADHD, but neither are they completely arbitrary, appearing by chance and being incoherent. A representative sample of statements is misdirected; the goal is not what people have written about ADHD generally, but the limits of what ADHD affords.

The other component of such an analysis is, following Carabine (2001) and Hall (2001), an emphasis on three concepts of Foucault's: power, knowledge, and the subject. The utility of these concepts will become clearer as I explore the topic under study, but the intent is to be attentive to their relationship, not to explain one in terms of another. That is to say, the existence of a relationship between

truth claims and power does not negate the epistemological status of those claims. If we grant a claim the status of 'true', the imbrication of such a claim with power does not mean it ceases to be true. For example, one can measure differences between individuals and among populations. The measurements themselves may not be a function of interested parties, and insofar as anything might justifiably be called 'true', these measurements would be true. However, the knowledge-claims and distinctions which result from such measurements are not at an independent level of description, to the extent they are the very thing which individuates people and populations. Through this individuation and construction of objects, what are valid, independent, and reliable measures nonetheless take the shape of techniques of power. Through given methods of knowing people and populations, and through knowledge of how to exercise changes on people and populations, asymmetrical distributions of action become codified, and particular ways of being in the world become, as it were, more or less ensured. As I argue in Chapter 3, bodies differ in measurable ways, and those differences cannot be dismissed as the bias or conceit of the person or institution measuring. However, upon establishing such differences, new ways of conceiving ourselves emerge, as do new criteria for acting and justifying action. Consider the following:

> This form of power that applies itself to immediate everyday life categorizes the individual, marks him by his own individuality, attaches him to his own identity, imposes a law of truth on him that he must recognize and others have to recognize in him. It is a form of power that makes individuals subjects. There are two meanings of the word "subject": subject to someone else by control and dependence, and tied to his own identity by a conscience or self-knowledge. Both meanings suggest a form of power that subjugates and makes subject to. (Foucault, 1994a, p. 130)

We see in this short excerpt the relationship between power, knowledge, and the subject. The individual becomes an object of knowledge, of truth-claims, and this individual and others recognize this individual as a subject, someone capable of action. An individual's status as ethical subject is to invoke all three principles: it makes an empirical claim about what one is, it constitutes a field of meaningful

action where some behaviors are legitimate and conceivable and others are not, and it allows the passing of judgment and establishment of sanction for who is and who is not ethical. Through this power relations are possible:

> "the other" (the one over whom power is exercised) is recognized and maintained to the very end as a subject who acts; and that, faced with a relationship of power, a whole field of responses, reactions, results, and possible interventions may open up. (Foucault, 1994a, p. 138)

The Archaeology of Knowledge

Archaeology of Knowledge was published as *L'archaéologie du savoir* in 1969 after Foucault's archaeological works *Naissance de la clinique: Une archéologie du regard médical* (1963) and *Lets mots et les choses: Une archéologie du regard des sciences humaines* (1966), later published in English as *The birth of the clinic* and *The order of things*, respectively. Somewhat curiously, Foucault wrote *Archaeology* not as a proposal for future works but as a retrospective of those works, and not to summarize what his approach had consciously been prior to those tasks, but to retroactively schematize what he finds he had been doing:

> Each one of my books is a way of dismantling an object, and of constructing a method of analysis toward this end. Once a work is finished, I can of course, more or less through hindsight, deduce a methodology from the completed experience. (Foucault, 1991 [1981], in Rabinow, 2009, p. 29)

Foucault describes this labour of dismantling an object, in *Archaeology* and elsewhere, as subject to revision, to false starts, to changing paths. While it "is not an exact description of what can be read in *Madness and Civilization*, *Naissance to la clinique*, or *The Order of Things*" (Foucault, 2002, p. 18), all these were exploratory works, Foucault's attempts to look anew on things. Paul Rabinow characterizes Foucault's efforts as attempts at writing a 'History of the Present'; Rabinow's recent and extended characterization is worth presenting here in full:

> One mode of analysis [of Foucault's many] was the 'History of the Present', characteristic of Foucault's work during the middle 1970s, culminating in *Discipline and Punish*. The task of the History of the Present was essentially a

> diagnostic one: to trace out—analyse—the sedimented concepts, practices and organizations of knowledge and power—objects—that made it seem coherent and plausible to build prisons and to claim that the prisons were reforming those imprisoned while, at the same time, contributing to defending another new object, society. This analytic dismantling, this production of estrangement, entailed detailed work in archives as well as a re-reading of conceptual texts of people like Jeremy Bentham, not as academic philosophers but as producers of programmes for social reform, at the time a distinctive practice, with a long future ahead of it. These programmes were the proper objects for Foucault's analysis to the extent that they had established a specific type of rationality as reasonable. Whether a type of rationality had been taken to be reasonable was a question not for the historian to answer but, rather, for the Historian of the Present to pose. The reason for making this distinction and underlining it is that the work to be done was diagnostic, the work of freeing-up the recent past to a concerned objectivity, an untimely attention to objects and practices. (Rabinow, 2009, p. 29)

We find in the preceding passage a number of principles for regulating research: that it be 'diagnostic', that one conduct an 'analytic dismantling' of practices which simultaneously define and purport to solve an object in the name of society; the re-reading of conceptual and programmatic texts addressing the problem this object poses; and a critical closeness and distance, through reading, in order to reflect on current options. The goal is that one pursue 'the production of estrangement' and reactivate what is common-sense or taken for granted.[2] The target of such prescriptions, 'programmes which had established a specific type of rationality as reasonable', is apropos for the current project on disorders of inattention and hyperactivity. The goal is not to determine whether interventions for the behavior of children are successful or not, or whether claims about behaviours are true or false (though I cannot avoid such questions), but about the rationality by which intervening in children's lives becomes reasonable, and in which case claims about truth and falsity might bear some relevancy. For example, the series of reasons by which it is reasonable to see children as either needing medication or as being fundamentally undermined through medication

constitute a support for subsequent programmes of intervention. To say that treatments for ADHD are reasonable 'because they work' is insufficient, because it doesn't answer what particular outcome is valued; it supposes that 'the problem' is independent and fully-transparent; and it ignores how the distribution of responsibility, obligation, and authority which results is not pre-given but is a function of a particular historically-specific rationality.

Rabinow's summation presents two important moves dealing with closeness and distance. One is a historical move. It is to look at the present, but obliquely, through a temporal distance, an 'untimely attention' to the 'recent past'. The other is a philological move. It attains critical distance through closeness; interpretive liberty comes not through disregard of what is already said but through a committed fidelity to and familiarity with even esoteric and superficial details, the 'attention to objects and practices'. The task of resistance to discourse cannot be achieved by ignoring such discourse; it is done in a structured manner here through immersion in those discourses. This is as inspiring as it is elusive: how did Foucault do this or might we do it?

Archaeology begins with a reflection on trends in historiography towards questions which arose about how to determine both the object and scale of one's analysis. Given documentation of what people say and have said, what is our relation to them? How do we admit some documents and not others to examination, how do we arrange them, how do we set them up to find continuity and difference?

For Foucault, orthodox historiography had a humanist bent. The goal was at times teleological, at times privileging of the human subject, at times privileging of reason. That is to say, it was a reading of history as the unfolding of thought, of the reconciliation of contradictions, of the increasing accuracy of scientific representations of the world. Existing narratives held history to have a logic behind it, a logic both presupposed and purportedly uncovered in doing history. It supposed one could read behind sources and reconstruct something which persisted throughout, and what persists throughout is the continuity of some object or concept, or a type of statement, or a thematic. One can easily imagine

such a study of ADHD: the history of ADHD would presume some historically-invariable object, perhaps a physiological arrangement, which persists unchangingly through time; this history would ask how people first identified the disorder, how they measured it and improved measurement of it, the false starts and mistaken theories which, against the intractable truth of the disorder, could not be held indefinitely. [3] In the exchange between reason and the object, reason heightens its grasp, becoming ever more comprehensive, parsimonious, and effective in its knowledge of the object. From this orthodox perspective, the evidence one encounters is confirmatory or falsifying in reference to the existing narrative which governs research.

Foucault's example of the *oeuvre* captures this point: what constitutes an author? All books, notes, various editions, translations with the author's name upon them? Foucault alludes to a circularity of this process, where the assembly of an oeuvre presumes the unity of an author, and that in the author we find the logic to explain, provide unity to, all that composes the oeuvre. While 'the author' is his sensitizing example, Foucault identifies four usual categorizations that structure historical analysis, what he calls "discursive formations". They are (1) the constancy of some object, (2) a subject's intentions, (3) the constancy of some concept, (4) a thematic, a particular approach; and he names them, respectively: objects, enunciative modalities, concepts, and strategies/thematic choices.

For ADHD, one could presume a consistent object: there is an entity known as ADHD, for example. One could write a history about how this object has eluded people's knowledge of it, or of how people have obtained a greater understanding of this object. At times people have been more successful in knowing the object, other times research has gone astray and misled others.

One might also write a history of figures in the history of ADHD. What were the conditions under which George F. Still and comparable child physicians understood 'moral defects of children' and how does their work reflect their commitments, their era in which they wrote? Such a history would take the author or consciousness as the logic behind utterances about ADHD; that whether or not ADHD was a consistent object, we can reconstruct a particular perspective to

account for statements on ADHD. Things written about ADHD are explainable as a subset of a way of thinking particular to a set of individuals.

There could also be a conceptual history: whatever the variation in objects or agents, the historian could reconstruct how concepts of attention and hyperactivity, or of disorder, have persisted. Through their analysis, we can understand how it is that ADHD exists today; people have sought the manifestation of these concepts in the world.

Finally, we could have a history of approaches: something as broad as the scientific method, narrower, like child psychiatry, or very specific, such as the analysis of child development; through which we see varying kinds of scientific labour unified.

Foucault treats these approaches with suspicion. They are not, on the surface, incorrect, but he asks whether the commitment to unity does not restrict understanding. Foucault asks us to suspend our assumption about the task of the historian as the task of restoring or maintaining order about circumstances.

> I shall accept the groupings that history suggests only to subject them at once to interrogation; to break them up and then to see whether they can be legitimately reformed; or whether other groupings should be made; to replace them in a more general space which, while dissipating their apparent familiarity, makes it possible to construct a theory of them. (2002, p. 29)

The goal is to understand statements not just as received ‘unities of discourse’, of not restricting a reading to the academic literature on ADHD in order to represent the unfolding and progression of scientific knowledge. We are to “disconnect the unquestioned continuities by which we organize, in advance, the discourse that we are to analyse” (2002, p. 27) and here he asks us to “renounce two linked, but opposite themes” (2002, p. 27): the first is to hold on to a secret origin, where everything which is present points us to which preceded it, and this latter points us to which preceded it, and so on ad infinitum. The second is to hold on to something unsaid but accessible behind everything which is said, where this present ‘unsaid’ provides some continuity to discourse. Renounce these, because “discourse must not be referred to the distant presence of the origin, but treated as

and when it occurs" (Foucault, 2002, p. 28).

Foucault identified some pitfalls that would inhibit this attempt to 'think otherwise'. This attempt is not simply an act of imagination where one can conjure up new worlds, new ideas; it has as a restriction fidelity to documentation, in Foucault's case archival material. Furthermore, this attempt to think otherwise is not a treasure hunt to find something most people have not read, to find a source or claim that vindicates or contradicts current understandings. Any such explanation would restore some form of continuity to historical analysis: that underneath disruptions there remains a logic accessible to reason which can restore unity to the past. Furthermore, it is not a rejection of discursive formations, but a suspension of their necessity. In the end, one's analysis may leave things untouched, it may, after all, find organizing history in reference to a discursive formation the desirable and reasonable approach.

What Material and Why?

After these methodological reflections, what to do about disorders of inattention and hyperactivity? There has been written material about disorders of inattention and hyperactivity since at least George F. Still. There is no way to analyze all the statements made in conjunction with, or in the name of, ADHD. While to recognize that the popular imagination has been captured by ADHD only in the last decades of the 20th century, with far fewer writings on such disorders prior to 1970, this does not mean that the number of relevant works is small in any practical sense. In fact, it inverts the problem: what works should compel one's attention? All work on hyperactive children, on hyperactive people, on medical interventions on childhood behavior, or to go further, and account for psychological theories of attention from William James onward, and on learning disorders, and cognitive impairments of all kinds? While it is bracing to consider suspending the categories of discourse, how might one translate this into practice? The conditions of this research require that I have some way of restricting what would be admissible as evidence. Insofar as my project is interested in interventions or treatments in the name of ADHD, the texts I have looked at are directed towards audiences composed of parents, educational and medical

professionals, those diagnosed with ADHD, and a general audience.

> Foucault adds that he concentrates heavily on prescriptive and programmatic texts which tend to create the impression of a perfect order. . . . texts that describe how people ought to behave, how societies ought to be constructed—and not on texts describing 'what actually happened.' (O'Farrell, 2005, p. 77)

Works which champion and advocate treatment as well as those which compel us to treat ADHD without drugs or which compel us to imagine a world without medicalized behavior have a political imagination, an idea of 'how people ought to behave, how societies ought to be constructed'. They are programmatic and aspirational.

My argument here is the result of textual analysis of such material in the period 1970–2005. This period is marked by the formal medical recognition of ADHD, by an extraordinary increase in pharmaceutical treatment for ADHD, and by a rise in public dissent around the disorder, as the *Washington Post* article inaugurated. In the 1970s these disorders obtained some popular attention alongside their reification in diagnostic manuals and clinical research. It is the decade in which these disorders gained some independence from learning disorders, and the efforts were laid for ADD to be included in the DSM-III in 1980. At the other extreme, 2005 is the terminal point, demarcating a period which includes work produced shortly after the revisions of the DSM-IV-TR, and following a large increase in Ritalin production and consumption. To continue looking at material produced up to the present or contemporary moment would have been unwise on methodological principle, and unwieldy to say the least, as new material is always being produced.

Some authors and works extend across this period, such as Paul H. Wender's text written for laypeople, first titled *The hyperactive child: A handbook for parents* (1973). Revised editions followed, including *The Hyperactive child & the Learning Disabled child* (1978), *The hyperactive child, adolescent, and adult: Attention Deficit Disorder through the lifespan* (1987), and *ADHD: Attention-deficit Hyperactivity Disorder in children and adults* (2000). Similarly, Barkley's *Hyperactive Children: A handbook for diagnosis and treatment* (1981)

was followed by *Attention Deficit Hyperactivity Disorder: A handbook for diagnosis and treatment* (Barkley, 1990), revised again for *Attention-Deficit Hyperactivity Disorder: A handbook for diagnosis and treatment* (1998).

In this time we also see the production of works directed at a popular parental audience, including Mark A. Stewart[4] and Sally Wendkos Olds' *Raising a hyperactive child* (1973), Domeena Renshaw's *The hyperactive child* (1974), Wendy Coleman's *Attention Deficit Disorders, Hyperactivity, and associated disorders: A handbook for parents and professionals* (1988), and Larry Silver's *Dr. Larry Silver's advice to parents on Attention-Deficit Hyperactivity Disorder* (1999).

Popular skepticism appears throughout this timeframe, including the early work of Schrag and Divoky's *The myth of the hyperactive child and other means of child control* (1975), Millar's *The myth of Attention Deficit Disorder* (1996), Peter Breggin's *Talking back to Ritalin: What doctors aren't telling you about stimulants for children* (1998, 2001), Walker's *The hyperactivity hoax* (1998), Richard DeGrandpre's *Ritalin Nation: Rapid-fire culture and the transformation of human consciousness* (1999, 2000) and Fred Baughman and Craig Hovey's *The ADHD fraud* (2006).

This literature also includes conference synopses, such as *Clinical use of stimulant drugs in children* (Conners, 1974), *Psychiatric aspects of Minimal Brain Dysfunction in adults* (Bellak, 1979b), and *Hyperactivity in children: Etiology, measurement, and treatment implications* (Trites, 1979).

Work for adults appears later in the 1980s and 1990s, including Sudderth and Kandel's *Adult ADD—The complete handbook: Everything you need to know about how to cope and live well with ADD/ADHD* (1997) and Murphy and Levert's *Out of the fog: Treatment options and coping strategies for Adult Attention Deficit Disorder* (1995).

My work and these books focus on the North American case, particularly Canada and the United States, but a sizeable proportion of the literature is from the United Kingdom. While the UK has a substantial population of children with attention disorders, with its own funding structures, cultural attitudes, and

epidemiology (Malacrida, 2003), I have not conducted a comparative analysis between countries. The majority of the literature is U.S.-specific; some is specific to the UK. There is very little on the Canadian case and that which is published in Canada, or written by Canadians, does not, from the experience of this research, differ widely from other material.

To find this material, this study employed the resources of the University of Alberta libraries, through the NEOS library consortium. These library resources are accessible; they are a site of statements which already exist and which do not need to be generated and documented through participant observation or interview methods; library resources are organized and can be revisited for the duration of the research[5]; and in pragmatic terms, this is where I, the researcher, was located. In terms of number of volumes, the University of Alberta library is second in Canada to the University of Toronto libraries (Canadian Association of Research Libraries, 2011). The NEOS consortium is a network of nineteen libraries in Alberta, including hospital and government libraries alongside academic ones, which can be searched collectively and through which all resources can be requested. The primary relevant libraries include the John W. Scott Health Sciences Library, the Rutherford Humanities and Social Sciences Library, the Herbert T. Coutts Education & Physical Education library, and the Book and Record Depository. These libraries provided an extensive amount of literature on the subject of attention and behavioural disorders from different perspectives.

I had considered pursuing this work at a larger library or a relevant archive. Having done a preliminary search of the University of Alberta electronic catalogue for relevant entries, giving me a rough list of local resources, I was able to compare the resources here with those at other libraries and archives, such as the Library of Congress. However, I found there were few texts available at larger libraries which were not also available through the University of Alberta; a comparison between the catalogues suggested that the University of Alberta libraries were adequate to the task. I did not find any archives of literature on disorders of inattention and hyperactivity, or archives of the work of luminaries in such research. I also consulted the Archives of the History of American

Psychology and the Archives for the History of Canadian Psychiatry and Mental Health Services on this matter, and they did not have resources relevant to this task.

Even within the University of Alberta libraries, there were decisions to be made about what would count as evidence. Microfilm, journals, audiovisual recordings, books, maps, and electronic sources were all possible options. The most significant and consciously-decided upon omission is that of academic journals. This may seem an odd decision given the extent of such material. One database by itself, Medline, listed 1025 journal articles with keyword 'Attention Deficit Disorder with Hyperactivity' for 2005 alone. There were two options: one is to search for journal articles which are expressly about moral/ethical issues of ADHD, and exclude those which are part of the scientific literature. The problem with doing so is that this might result in a selection effect of studying only those works which self-consciously examine what is said and done about ADHD. The other option was to include all journal articles on ADHD, however related, and put in the painstaking work of reading them all for the assumed, the commonsense, or the peculiar and unusual. But given such a task, the scope of possible texts would have to be restricted in other ways to make such a task manageable, restrictions which again would narrow the very variety of statements I was after.

In retrospect, I was able to grasp a connection between academic journals and the literature under consideration here, though this connection is not fully clear. Prominent contemporary journals include *Journal of attention disorders*; *ADHD: Attention Deficit and Hyperactivity Disorders*; *Emotional and behavioural difficulties*; and *Journal of the American Academy of Child and Adolescent Psychiatry*. Some articles within these journals are devoted primarily to dense and succinct analysis of laboratory results, including specialized analyses of medication or behavioral treatment under restricted conditions. Other articles are more likely to present critical analyses of ADHD as a general concept, or to defend its legitimacy. The books discussed here appear as distillations of what occurs in the journal literature, but with modifications of two sorts: the first is that

the most technical language is modified for a broader audience, and authors devote more space to personal reflections and comprehensive assessments about the nature of disorder and the goals of treatment.

I hypothesize that if I were to read deeply within and across genres of the academic journal literature, I would encounter starker contrasts than reading within and across the literature I discuss here. It would also pose a greater difficulty in looking for continuities. The conventions of academic journal publication, which may involve at times parsimonious reporting of technical results, or the omission of reflective or generalizing statements, would further occlude the operating assumptions of said literature. My impression is that an extended discourse analysis of these journals would not contradict the general claims I advance, but would complement it. However, only an extended analysis of these journals is necessary to confirm or dispute my impression.

The technical details of the selection of material are provided in the Appendix.

The Object of Study

I read these documents for several major points. The first is the model of ADHD they establish, whether such a model is sympathetic to a DSM or medical definition or not. What understanding of ADHD do they have? Secondly, I asked how they construed the ADHD subject. Is such a subject present in these works, and what is his or her nature? Thirdly, I looked at how these texts understand ADHD to be problematic. For example, is it a problem because the diagnosed individual cannot conform to social demands, is it a problem because it produces stress in the individual, or is it a problem for other reasons? Coupled with this textual exegesis was the goal of developing an explanation of how such an understanding supports the particular consequences the related text advocates. Is there a relationship between how they understand the ADHD subject and the suitability of reward systems, or medication, or disciplinary punishment?

Two Methodological Objections

There are two methodological hurdles that this approach faces; I will discuss them briefly. The first is that the discursive field of statements is entirely a

function of the institution of the library. The people who staff and operate the library, their approach, the books they have in circulation and the obligations the library has to meet are what structure the content I have studied; any order or significance to this field reflects the conditions under which these books were selected. From a larger point of view, these books have passed the demands and interests of publishers, economic requirements, habits, etiquette about what is proper to say, about the standards of the genre and standards of evidence. But if it is the case that the works under consideration are available to me, and say what they do, for extra-textual reasons, in the sense that particular statements are selected for and others selected against, we might firstly consider whether some utterances go without being selected for or against at all. They pass by because they are common-sense or inoffensive, and persist exactly because they were unworthy of particular kinds of attention. Whether my method will be able to distinguish such utterances is not clear, but I posit that the alternate approach which the objection posits is not so easily satisfied either. The process of selection is not immediate or circumscribed, it extends indefinitely: An author wrote what she did for particular reasons; a publisher edited or approved said material for other reasons; a library had resources available to select this material and not other material; the intellectual climate or patron demand also exerted an effect; each with their own causes and origins again; and so forth. A theory and a method to test which of these and other causes are most influential is valuable but also difficult to satisfy in its own right. The alternative, which I here pursue, is to study these works immanently.

The second objection is that such an analysis will simply find what it is looking for, a potentially serious problem of “selectivity” (Carabine, 2001, p. 306) which can occur in Foucault-inspired approaches. If I look for statements on ADHD and on the justification of interventions, then the conclusion that some of these documents contain statements justifying interventions is clearly uninformative. Firstly, however, the point of such research is to document these statements in question: just what are the justificatory and normalizing claims in ADHD literature? The potential error is not in looking at these claims, but in

presenting them unfaithfully: as exhaustive when they are not, or suggesting connections where there are none. Carabine also suggests being attentive to challenging exceptions, which I have aspired to do. I provide the method and sources examined, in my bibliography, so that one may check the sources themselves and determine whether I have done justice to the literature. Secondly, if discursive formations are what give meaning to 'regularities in dispersion', then to suspend acceptance of those discursive formation is to suspend meaning. One might stand accused of *apophenia*, of finding meaningful patterns where there are none. However, this is not something with which we can charge Foucault's approach, because the regularity of statements in dispersion has no 'meaning', no referent other than the regularity of statements. In fact, it is precisely because they have no meaning in themselves that the episteme of an era is not accessible to those within it; the episteme is the regularity of habit, of inherited ways of thinking, of the sediment which thought has stood upon, which may not be translatable into anything more. This problem of meaning is not so problematic as it might first appear. To emphasize meaning is somewhat misguided when Foucault's interest is in the logic of relations between statements. In *The order of things*, Foucault's ambitious work on the rationality behind the human sciences, specifically general grammar, natural history, and 'the science of wealth', Foucault is not primarily interested in the question 'what is the meaning of the subject-verb-object form?' or 'what is the meaning of the tables of difference which constitute taxonomy?' To ask the question of meaning is to suppose that these regularities are explained by reference to the consciousness of an author, or to the consciousness known as the 'spirit of the age'; that the 'order of things' is always a function of the unity of the human subject, which is the very thing the human sciences were attempting to know. Avoiding this circularity, Foucault's analysis was not to document meaningless regularities; it was to demonstrate that utterances occur in a patterned way which is not reducible to the *explanans* of discursive formations. The point isn't to read what is said, and to show how a particular utterance is generated by economic interest, or the habits of scientific practice, or the structure of language as a totality, or the norms of the context in

which it is uttered, and that the utterance is therefore evidence for the antecedent condition. What this analysis allows is the positing of relations between actual statements, outside of the cause of the transcendent author or object or concept which provides us with the logic to decode documents.

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[1] One can think of Michel Foucault's admission that he "would take so much trouble and so much pleasure in writing" (Foucault, 2002, p. 19).

[2] I note that Rabinow says 'sedimented concepts, practices and organizations of knowledge and power'. This use of 'sedimented' to mean the unquestioned bedrock which supports matters of conscious consideration is extensively discussed in Ernesto Laclau's post-Marxist work, see in particular Laclau (1990); I discuss it further elsewhere (Bowden, 2009).

[3] One might suppose that ADHD emerged historically to the extent that humans have not existed forever and that our physiology has undergone changes over time; but it is still possible from this humanist historical approach that 'ADHD' pre-existed its identification and measurement and was the unknown referent which coerced scientific inquiry towards the truth.

[4] In a collaboration which suggested the mutual relevance of medical and sociological interest in hyperactive children, Mark A. Stewart, child psychiatrist, wrote the foreword to Conrad's *Identifying hyperactive children* (1976).

[5] Libraries are not completely static, some books disappeared, were removed from circulation between finding them in the catalogue and looking for them in the stacks, and so forth.

Chapter 3: ADHD and Disorder

Introduction: What is ADHD?

What sort of thing is ADHD? Is it real? Much of the debate over the legitimacy of disorders of inattention and hyperactivity turns on the question of whether they have a physiological basis. This preoccupation supposes that disorders are natural kinds, material states of affairs, which can be uncovered through appropriate scientific inquiry. In this chapter I employ work in the philosophy of health and illness to argue that this supposition is misguided and I offer an alternative way to think about what sort of object ADHD might be. ADHD, as with all disorders, necessarily reflects values about what bodies, states, and actions are desirable; while we might still say that ADHD is real and not fictional, it is not a 'natural kind' and it is misleading to talk about disorders as objective ahistorical and acultural entities. Reviewing some general arguments and principles in the philosophy of disorder, I affirm that ascriptions of disorder necessarily involve a value judgment about something undesired and I revisit Peter Sedgwick's brief but trenchant work to clarify this point. If the behaviours constituting ADHD are ascribed the status of disorder, they involve normative claims about behavior, regardless of the breadth and depth of descriptions of somatic states.

In the first half of this chapter I give an account of the debate over the ontological status of disorders of inattention and hyperactivity as well as sociology's reluctance to enter this debate. Some have offered ways of thinking about ADHD committed to a rejection of what they call 'biomedical' claims but I find them wanting. It is possible to recognize the validity of medical claims without having to compete with them in order to talk about the social life of disorders.

In the second part of this chapter, I show that value judgments are at play in defenses of ADHD as a disorder, making particular and extended reference to the *International Consensus Statement on ADHD* (Barkley et al., 2002), presented by its authors as a comprehensive, authoritative account of the scientific legitimacy of ADHD. Despite a commitment to physiological descriptions, the Statement

relies on normative concepts to defend ADHD's existence and legitimacy.

I: Is ADHD Real?

A Variety of Claims

Much of the literature under consideration seeks to reassure or convince the reader about what ADHD is, but does so without any consensus. To give a sense of the variety of what is written about such disorders, consider the following: Peter Schrag and Diane Divoky (1975) said the diagnosis of the hyperactive child was a myth, a product of unchecked medicalization. Thomas Armstrong (1997) said the ADD child was a myth, but he was referring to what he sees as medicine's limiting view of disruptive children. Fred Baughman and Craig Hovey (2006) called ADHD a fraud, a diagnosis perpetrated by psychiatry in the service of pharmaceutical treatment. Peter Breggin, ADHD critic and psychiatrist, offered some criteria for what 'real' ADHD might be when he says "Does the diagnosis have any independent validity? Is it 'real' in the sense that pneumonia, diabetes or head injury is real? Do these children really have 'broken brains'?" (2001, p. 151). Eminent American psychiatrist Leon Eisenberg asked: "Is hyperactivity a 'myth' or is it 'real'?" (in Safer & Allen, 1976, p. vii) and came down on the side that it was real—but not a real disease, only a real syndrome, given the state of the evidence. Clinical psychologist Kathleen G. Nadeau addresses adolescents with the rhetorical question "Is ADD real?" She tells them "you may meet people who don't 'believe' in ADD. They think ADD is just an excuse for being lazy, for not trying, or for being irresponsible. People who make these remarks are only showing their ignorance of ADD" (Nadeau, 1998, p. 9). What does Nadeau then say the disorder is? "ADD is a neurobiochemical disorder" (p. 58). If Nadeau means that ADHD is real and therefore a disorder, contrast this with another claim that ADHD is a disorder and therefore real: parents whose child receives a diagnosis of ADHD "may feel relieved knowing that the child has a *real* [italics added] problem and is not just a troublemaker or a bad student" (Bishop, 2002, p. 40). Arthur L. Robin (1998), a clinical psychologist addressing physicians, poses the question "Does ADHD really exist?", warning his audience that "the most

radical reformulation of ADHD has been to deny its validity", and "every practitioner should be prepared to address it in a convincing manner" (p. 41). He devotes several pages arguing against skeptical ADHD claims, hoping that he has "prepared the reader to deal with attempts to deny the existence of ADHD" (p. 45). ADHD's most prominent researcher and public advocate, psychologist Russell Barkley assures his audience that "ADHD in adults is not a fiction, myth, social construction, or mere reaction to modern hectic lifestyles or a multimedia environment. . . . all evidence shows that ADHD is a serious mental disorder associated with significant life impairments" (Barkley, 2010, p. 13).

What is this preoccupation with ADHD's ontological status? Much disorder accords with intuition, and does not receive much reflection from the majority of people. It seems quite reasonable to many that out-of-control behavior, or extreme emotional lability, or suicidal ideation are all sufficient reasons to consult a physician, and that success in treatment from a physician means treating such behavior as disordered is justified. More so, the question of what constitutes disorder is largely not a factor in the daily activity of medical professionals (Bolton, 2008). They are able to conduct their work without reflecting on what defines disorder, as their primary concern is understandably addressing what they encounter in their practice. Infections, broken bones, wounds—there is little practical incentive for an overarching principle by which medical professionals legitimate their concern with such things. However, given the consequences of medicalization, namely the redistribution of power among individuals and institutions; the financial gains to corporations involved in health care; access to support, or withdrawal thereof; the diagnostic sovereignty of professionals and their representative organizations; and changes in social status from 'deviant' to 'ill' for those diagnosed; then there is an incentive for a number of interested parties to obtain criteria to distinguish disorder from non-disorder and to enforce such distinctions. This is of particular importance in limit-cases. Deliberation on criteria would provide a consistent guide to justify inclusion or exclusion of a particular phenomenon. Homosexuality is the preeminent example, but similar concerns are currently expressed over the status of Post-Traumatic Stress

Disorder, Gender Identity Disorder, and ADHD.

Physiological Explanations

In the task of demarcating legitimate from illegitimate ascriptions of disorder, the major point on which the abundance of claims about ADHD's status turns is the material grounding, or lack thereof, of the disorder. Some argue in favour of a neural or physiological foundation to the disorder, concluding that it is therefore real:

> The central inborn temperamental differences of HA children include the following characteristic problems: . . . . These traits are *biologically caused*. They are *not* caused by the child's upbringing. (P. H. Wender & Wender, 1978, p. 28)
>
> Despite the varied clinical picture of ADHD, investigators are becoming more certain that ADHD, as a neurobiological disorder, has a genetic basis. (Quinn, 1995, pp. 26–27)
>
> There now is a sufficient accumulation of neuroscientific data to document that disorders such as . . . attention deficit hyperactivity disorder (ADHD) are the result of neuroanatomical and/or neurochemical abnormalities. These, therefore, may now be described as *neurobiological disorders*, rather than being placed under the category of "mental illness." (Quinn, 1995, p. 18)
>
> ADD is not really a disorder at all, although that is how it has been labeled by the health-care community. In reality it is simply a particular style of brain wiring—one that seems to go hand in hand with exceptional creativity. (L. Weiss, 1997, p. 3)
>
> ADD is a neurobiochemical disorder. (Nadeau, 1998, p. 58)
>
> *ADHD is a neurobiological disorder*. (Weingartner, 1999, p. ix)

Others argue that ADHD is not real, that it is illegitimate, based on the absence of physiological evidence:

> neither the money nor the research spanning nearly 30 years has produced one shred of "hard" medical evidence that MBD exists, let alone that it is a medical or a physiological phenomenon (Witter, 1971). This "disease" cannot be disclosed by a routine medical examination or by a specialized test such as an

encephalogram. Belief within the medical community that MBD exists and is a specific medical problem, although totally unsubstantiated by "hard" scientific evidence—represents, in the words of Dr. Francis Crinella, a "fashionable form of consensual ignorance" (Witter, 1971, p.31). (J. L. Brown & Bing, 1976, p. 221)

There is little evidence that ADHD exists as a discrete biological phenomenon. (Nylund, 2000, p. xvii)

Ultimately, there is no solid evidence that ADHD is a verifiable biological disease (Breggin, 1998; Diller, 1998). (Nylund, 2000, p. 21)

Aside from a small percentage of children who have had an identifiable injury or illness that led to hyperactivity, there is no evidence whatsoever that the problems defined as ADD or ADHD have a clear-cut biological origin. (DeGrandpre, 2000, p. 9)

Most expositions about MPH [methylphenidate] effectiveness have been predicated on ill-conceived propositions about a hypothetical 'brain disorder', 'biochemical imbalance' or 'biological dysfunction'. Nonetheless, the most recent policy statement from the highest health authority in the USA (i.e. the federal government) refuted this claim, with the conclusion that there were no data to confirm that ADHD is a brain malfunction. . . .

There is, moreover, no direct evidence to support the proposition that ADHD or ADD is due to a supposed 'chemical imbalance' in the brain. . . . There is no evidence to support the medical proposition that ADHD or ADD is a biologically based 'chemical imbalance'. Belief in the biopsychiatric perspective by prescribers is a matter of faith, not based on scientific evidence. (Baldwin, 2000, p. 456)

ADHD is not neurologically-based. (Breggin, 2001, p. 59)

While few children diagnosed ADHD suffer from any physical illnesses, it is important to remember that ADHD-like behaviors can have a biological origin in *real* diseases rather than in mythological biochemical imbalances. Two points need to be made in regard to the possibility of finding medical causes for individual children who display ADHD-like behaviors. First, when a medical cause is found, the disorder is no longer diagnosed ADHD. It is called by the

> name of the genuine disorder, such as hypothyroid disease, closed head injury, or drug intoxication. Second, as a real disease, it is almost never treated with Ritalin or other stimulants. (Breggin, 2001, pp. 168–169)
>
> The evidence does not support the conclusion that ADHD identifies a group of children who suffer from a common and specific neurobiological disorder. There are no cognitive, metabolic, or neurological markers for ADHD and so there is no such thing as a medical test for this diagnosis. . . .
>
> Even a U.S. federal government report on ADHD concluded that there was no compelling evidence to support the claim that ADHD was a biochemical brain disorder (National Institutes of Health, 1998). (Timimi et al., 2004, p. 60)
>
> If ADHD was meant as a way merely to identify a set of behaviors with no inference of it being a neurological abnormality, that would be one thing (and still an insult to children), but the insistence that it exists in the same physical and provable realm as real diseases is a perversion of science, without even enough credibility to rise to the level of pseudo science or junk science. It is an outright lie. . . .
>
> ADHD is not a disorder or a disease or a syndrome or a chemical imbalance of the brain. . . . It is a 100% fraud. (Baughman & Hovey, 2006, p. 9)

However, this is further complicated by criticisms which take neurological differences as evidence against the existence of ADHD. How so? Conceding that some somatic aberration or difference exists in some children, authors then focus on over-diagnosis, or false or inauthentic forms of ADHD. In short, physical differences are real disorders, but ADHD is inherently not a real disorder:

> True hyperkinetic syndrome is consequently a rare disorder in the ordinary school child, whereas the child who is regarded as overactive (could we drop the jargony ‘hyperactivity’?) is a common problem. The physician has no business to be handing out drugs for the management of this condition. He must first assess *all* aspects of the child and his social setting at home and at school. (Bax, 1971, p. 136)
>
> The crucial point underscored by such medical data is that in the absence of any evidence that such a thing as MBD exists, there is abundant evidence that real

> physiological problems cause hyperactive behavior in some children. The tragedy is that physicians who accept the MBD myth and who use the psychotropic drugs to treat hyperactive children, inadvertently mask the symptoms of real physical problems. (J. L. Brown & Bing, 1976, p. 222)
>
> The ill-defined boundaries of the conditions so labeled permit unlimited expansion in all directions. This threatens to obscure the very important distinction between the relatively small number of children with biologically based difficulties and the larger number who are failing to meet the expectations of their families or the school system for other reasons. (Freeman, 1977, p. 22)
>
> While hyperkinesis and learning disabilities do, in fact, exist, incidence is limited and the proportion of the school-age population actually so affected is probably not growing very rapidly, although the widespread, casual application of these labels would lead one to believe otherwise. Surely the incidence is not growing as rapidly as some authorities would have us believe. It appears that we are indulging in a variation of a favourite intellectual pastime—suppressing deviant behavior. (Rogers, 1979, pp. 2–3)
>
> I believe, however, that there really *is* such a thing as ADD and that it affects perhaps 2 to 3 percent of the population. . . . [The remainder is due to] cultural influences and the failure of our educational system to understand and adequately address it. (Freed & Parsons, 1997, p. 25)
>
> Nobody doubts that a small number of children are born with or, because of disease or head trauma, develop the symptoms of ADHD. (DeGrandpre, 2000, p. 18)
>
> Although the vast majority of children diagnosed ADHD have nothing physically wrong with them, a few do have identifiable medical disorders that can be treated—not with stimulant drugs but with treatments that address the real physical problem. (Breggin, 2001, p. 203)

When presented with these accounts of ADHD, the temptation is to consult the evidence. Is it really true that ADHD is in fact physiological, that there are or are not biochemical indications for the disorder? I will return to this argument later, but to the extent these criticisms hold ‘biological evidence’ as the litmus test for ADHD then they are squarely in the scientific camp of scientific explanations.

The goal presumably is to distinguish the objects of science from fictional objects.

Sociological Approaches

Much sociological research on ADHD appears reluctant to enter this fray. In Peter Conrad's early work on medicalization, he was more interested in how behaviours come to be defined as medical, remaining largely agnostic on the question of etiology (1977). The existence or non-existence of physical properties in a deviant individual was not, in his view, the primary impetus for the medicalization of behaviours. Malacrida (2003) reflects on her research project about mothers of children with ADHD, saying she "was not interested in providing evidence one way or another to add to debates over the legitimacy of AD(H)D" (p. 14), "nor whether AD(H)D itself is a 'true' disorder" (p. 44). She describes ADHD as a 'disciplinary category' and her overriding interests were the rules governing who could speak about ADHD, and who had authority over the diagnosis and interventions. Rafalovich (2004) asserts that ADHD is, by definition, a medical problem, but that ADHD "should not be regarded as a medical falsehood or conversely, as a medical reality" (p. 8). He continues, "instead of proposing an ontology of ADHD, it would be more pertinent to examine the discourse that has constituted ADHD as an object in the same spirit as Michel Foucault's genealogical studies" (p. 8). Bailey (2009) says that ADHD is a 'medical psychiatric construct', admitting the realities of impairment while carving out a space for suspicion of medical categories.[1]

None of these works are obliged to address the question of what sort of thing ADHD might be; their research questions were satisfied without deliberating the ontology of disorder. However, must a social analysis of ADHD necessarily avoid this question, must a sociological analysis necessarily occupy itself with 'discourse', with meanings related to ADHD, leaving the solidity of the disorder to medical sciences? Can social analyses talk about the same thing as medical science, or must they leave the independent narrative of scientific discovery of objective disorders untouched?

Some have attempted to articulate a way of thinking about ADHD which they characterize as in direct opposition to a 'biomedical' model. The goal is to argue

against a way of thinking about ADHD which is premised on physiological measures and pharmacological treatment and to argue in favour of alternative interventions. Their approach is twofold: first, they reaffirm the ambiguity of empirical claims about ADHD, particularly the inconclusiveness of technical and biomedical data (See Reid & Maag, 1997; Reid, Maag, & Vasa, 1993; Tait, 2005; Thurber, Sheehan, & Roberts, 2009; Visser & Jehan, 2009) but they also call the warrant of scientific claims themselves into question. For example, Visser & Jehan (2009) argue that ADHD's legitimacy stems not from science's access to the truth but from the authority of technical measurement apparatuses and the expertise of scientists and physicians; the public sees proponents of this model as authorities and accepts their claims on that ground. Furthermore, this argument opposes neuroscientific and pharmacological analysis to sociological analysis. In contrast to the 'biomedical model',

> the sociological discourse contends that ADHD has been reified into a biomedical concept . . . . [F]rom this perspective ADHD does not exist as a true objective disorder. Instead, the sociological discourse argues that the concept of ADHD is a social and cultural construct whereby 'disorders in society [have created] disorders in children' (Graham 2008, 66). (Visser & Jehan, 2009, pp. 128–129)

> Sociological perspectives do not generally accept that there is a biological element when seeking to explain the aetiology of the disorder . . . (Wheeler, 2010, p. 262)

This idea of competing approaches is shared by Gordon Tait, educational sociologist who has written on the philosophy of ADHD. Tait (2005) compares two stances towards ADHD. The first is "ADHD is real, it exists in nature"; the second is "ADHD is the product of social governance" (p. 19). By 'social governance' Tait means the categorization of behavior in order to better manage populations, citing Michel Foucault and Nikolas Rose as exemplars of this position. He asks what we can make of the claim "it is true that ADHD is a real disorder" (p. 30). In the face of this claim, are these stances compatible or are they irreconcilable? For Tait, one may be a realist towards truth claims, "a position

based upon the belief that there exist indisputable facts about a singular reality", or one may be an anti-realist, where "facts themselves necessarily reflect particular points of view" (p. 29). Tait argues that an anti-realist stance circumvents the problem. Whereas the realist would say that it is possible to say that ADHD exists in nature, and that social explanations are not justified,

> If an anti-realist position on truth is adopted, there does not seem to be the same kind of epistemological problem: social scientists and psychologists can stop squabbling with each other. That is, each theory can function as a truth within its own contextual framework, a situation founded in the pluralist logic that reality is not fixed and complete, and that facts can only ever reflect given points of view. (p. 35)

However, his genial incommensurability is no solution, since it begs the question: which position should one inhabit? Should the American Psychiatric Association's Task Force charged with judging the inclusion of disorders in the DSM-V be realists about ADHD or should they be anti-realists? If facts can only ever reflect points of view, how do parents agonizing over their child's behavior evaluate treatment options? The suggestion that competing groups can withdraw to their corners and 'stop squabbling' forgets that more is at stake than description. What is at stake in the question of ADHD's ontological status is whether ADHD is legitimately a disorder, with the attendant shifts in social status, opportunities for interventions, legislative considerations, and self-understandings.

Furthermore, there is no convincing reason why scientific inquiry is inappropriate or invalid to begin with. Criticisms that scientific inquiry into these disorders has failed to meet scientific rigor, or that it takes advantage of technocratic authority, or that it has allowed extra-scientific influence to skew its approach, are themselves nonetheless reaffirming the necessity of proper, uncorrupted, scientific inquiry and they return us to the realm that was meant to be drawn into question. If the argument is that science provides the relevant answers and should be done correctly, then the task is to continue to improve the practice of science; it is not clear where this leaves sociological approaches which

see disorder as a 'construct'. If the argument is that science is one perspective among many, then it is not clear by which standard the reader can or should adjudicate among those perspectives.

Ultimately, these attempts do not circumvent the problem, as they propose two stories and two spheres of disorder. One story, of scientific progress, where disorders and subsequent treatment are discoveries of objective things; discarded disorders and therapies are at worst a regrettable lapse, at best evidence of scientific progress. The interests of power may unduly influence results, but upon their removal or mitigation, scientific inquiry can proceed as it ought. The other story, the sociological one, stops at the gate so to speak, unable to enter discussions of 'real' disorder and must be content with a social world only appended to that where fundamental truths reside. The realist would have nothing to apologize for or reconsider; the anti-realist would have to commit to anti-realism to sustain her position. In the rest of this chapter, I suggest a position which does not commit one to radical epistemological claims nor to reducing one's claims to a point of view. I will now argue for an alternative way of thinking about ADHD, which can be better described in terms provided by work in the philosophy of health and illness.

Philosophy of Defining Disorder

Since the 1970s, by no coincidence with concerns over the status of psychiatry within medicine, and anti-psychiatry critiques over how psychiatry sought to justify what it treated, there has been significant attention given to how to demarcate disorder from non-disorder.[2] Philosophical work specializing in health and illness has generated a number of perspectives and the two major positions in how to define disorder are 'naturalism' and 'normativism'.[3] Naturalism sees disorder as an objective property, something independent of value judgments and of culture, and can be discovered through the scientific method (e.g. Boorse, 1977). This position aims to determine disorder through the analysis of anatomy and physiology, both on an individual level, by examination of a patient's organs for example; and on a group level, by examination of evolutionary traits and statistical deviation. The sociological task vis-à-vis a naturalist understanding of

disorder might then be to conduct a history or ethnography of the political economy of laboratories and funding, or the practices under which discovery of disorder occurs. Normativism, in contrast, understands disorder as based primarily in values. Disorders are fundamentally phenomena which are disvalued (Sedgwick, 1982) and which come to be objects of medicine for additional reasons which depend on the particular normativist stripe in question. The sociological task would be to ask why particular disvalued positions become medicalized and others do not, and to ask what values disorders, on the whole or individually, reflect.

More recently, a third position has emerged, a 'hybrid' position, which attempts to jettison perceived failures of naturalism and normativism while combining their virtues (Wakefield, 1992). Like normativism and naturalism, the aspirations of a hybrid position have not been fully realized and the position remains contested. I discuss this hybrid position later in the chapter as it has influenced prominent defenses of ADHD.

Surveying these attempts to define disorder, Ross (2005) concludes that "definitions of the concept of *mental disorder* are abundant. Nor is there a shortage of opinions concerning what is wrong with each definition proposed" (p. 115). As Ross alludes to, the general tenor of the debates is antagonistic, fraught with mischaracterizations and accusations of mischaracterization of competing positions. To articulate the ostensible problems with naturalism and normativism risks committing oneself to a careless reading. It is preferable to consult meta-analyses of the debates over definitions of disorder, as well as the general objections associated with each position (See Bolton, 2001, 2008; Ereshefsky, 2009; D. Murphy, 2009; P. A. Ross, 2005, 2007). Nonetheless, claimed problems with naturalism are that disorders are not natural kinds; while there can be tests for particular physiological states or entities, there is no test which says that an entity or state is an object for medicine. For example, how do we know, from looking at the body alone, that one neurological state is a disorder and another not? Something about the state must conflict with our desires or expectations about how our brains are to work. Claimed problems with normativism are that

deviance or undesirability alone is insufficient to warrant the status of disorder. For example, homelessness is not disorder and being rude is not sufficient evidence of a disorder.

I follow Ereshefsky (2009) who simply separates the issues: when people talk about disease, they talk about both 'state descriptions' and 'normative claims'. That is to say, there are properties of bodies, and there are judgments about what bodies ought to be like. "Using the distinction between state descriptions and normative claims makes clear where the disputants agree and where they disagree rather than lumping two central aspects of the debate under the heading 'disease'" (p. 225). Within this framework we can make some clearer statements about ADHD and its status as disorder. It is true that there are behaviours which aggregate together, and which appear to be related to some physiological state. It is not clear that these constitute disorder any more than any other set of behaviours or physiological state. For ADHD to be understood as disorder, there is both the micro-level account of people disvaluing particular states as well as the macro-level account of how such disvaluation came under the purview of medical authorities. Ereshefsky takes up the problem of normativism, that if disorder reflects value judgments, why do some negative assessments result in the ascription of disorder and others not? When Ereshefsky says "normativism fails to account for the common distinction between undesirable states that are considered diseases and other types of undesirable states" (p. 226), he tasks sociology with finding the solution:

> Nevertheless, a distinction can be added to the distinction between state descriptions and normative claims that helps illuminate why some undesirable states are medical conditions and other undesirable states are not medical conditions. The distinction is a sociological one (Cooper, 2002, offers a similar suggestion). After providing a state description and deciding whether the state in question is desirable or not, there is a sociological question concerning which aspect of society treats (successfully or not) such states. If treatment falls under the expertise of health care workers, then it is a medical condition. If it does not fall under the purview of health care workers, then it is not a medical condition. Simply put, whether an undesirable state is a medical state depends on how the

> division of labor is drawn in a society. (Ereshefsky, 2009, p. 226)

This is correct, though the sociological task is more complicated than this, as it has to answer why treatment falls under the expertise of health care workers, and thus an understanding of the historical and material conditions of the production of disorder is warranted, and this is what studies of medicalization, such as those of Conrad, have to offer. Conrad has shown that in the case of disorders of inattention and hyperactivity it was not an objective determination of aberrant physiology which led to medicalization. There was some evaluation of these disorders as undesirable, and in practice this happened prior to the search for a physiological cause, and it happened in classrooms, at home, and in clinicians' offices. It is clear that any physiological evidence is not what constituted hyperactivity as disorder in practice. Does this mean that disorders are illegitimate until a physiological measurement is found which demarcates one population from another, or does it mean that one can legitimately ascribe the status of disorder for reasons other than physiological grounds? This problem was already at play for the disorders here in question:

> Ultimately, we wish to associate certain patterns of behaviour with specifiable psychological experiences, neurologic structure, or neurophysiologic or biochemical functioning. Our problem is what to do till the science comes. (P. H. Wender, 1979, p. 5)

To return to the ADHD case, we might reconsider the array of claims presented earlier about physiological evidence, or lack thereof, for ADHD. What these claims presume is that such evidence is sufficient to determine disorder. But one can recognize that we can measure differences among children, that these differences may translate into impairment, without ceding that these are sufficient grounds for something being called disorder. The presence of difference is not in itself pathological. Furthermore, this does not mean that cause is reducible to physiology, as cause depends on the desired level of description: efferent nerve signals cause behavior, but so too do circumstances which elicit responses from individuals; genetics may have some determining force on a subject's physiological dispositions, but those genetics may be the long-term consequence

of selection pressures. Selection pressures in turn may be related to forms of social organization, and so on.

To develop the point, it is quite plausible that there exists a set of children who express behaviours distinguishing them from their peers and that their behavior has some correlated neural activity. Understanding the dimensions of that phenomenon is difficult, and it is not trivial to be able to conclude that 'children who demonstrate behavior *X* also demonstrate *Y* structure in their brains and are affected in manner *Z* by Ritalin'. However, if we grant that the behavior exists, it would be quite surprising to discover that there is no activity in the central nervous system which distinguishes that behavior from different behavior. One does not need to be a radical materialist to accede that external behavior has some correlated activity with the central nervous system. It would be more difficult to assert the reverse, that observable behavior is disconnected from bodily states entirely on the grounds of epidermal boundary. Indeed, evidence of ADHD's physiological basis is testament to the power of techniques and skills in measuring physiological differences, not in demonstrating a general principle about how observable behaviours have a relationship to our physiology. In sum, if all behaviours have some physiological correlate then the presence of that correlate does not do the heavy lifting in terms of demarcating disorder from non-disorder, any more than somatic differences between men and women, left-handers and right-handers, English speakers and French speakers would indicate disorder.

Interestingly enough, critics independently raise this issue themselves: DeGrandpre (2000) says that "behavior always has physiological strings attached" (p. 40), and "whatever the cause, significant differences in children's behavior will always be correlated with significant differences at the level of biochemistry and neurophysiology" (p. 145), but concludes that those physiological differences and 'strings attached' are in themselves not evidence for a causal relationship, nor do they preclude a theory that ADHD "is really a culture-based, developmental syndrome" (p. 40). Breggin (2001) says

> ADHD behaviors, like any and all behaviors, have something to do with the brain. This, of course, is a meaningless statement that in no way supports the

> concept of a brain disorder in children diagnosed with ADHD. (2001, p. 16)

Travell & Visser (2006) reiterate this as well:

> Whereas it is inevitable that behaviour has biological correlates which might be demonstrated through differences in brain activity identified by brain scanning, this study indicates it is unhelpful to suggest such behaviours are caused by a brain disorder. (2006, p. 213)

However, these authors take their conclusions in a different direction than I. I aim not at casting doubt on ADHD's legitimacy, but to see the production of disorder as a sociological fact, something which has to do with negotiating values about what sorts of bodies and states are desirable.

Peter Sedgwick

The stance I have presented on disorder is indebted to that given by socialist activist Peter Sedgwick (1934–1983). His lucid if fiery account of disorder is applicable to the current context; it is one I share. Sedgwick was at once a critic of the state of psychiatric care in the UK; a critic of 'anti-psychiatry', though that term covers a very broad range of positions; and critical of a biological essentialism in explaining illness. His *Psycho politics* (1982) expressed dissatisfaction with criticisms of mental illness as expressed by R. D. Laing, Thomas Szasz, Erving Goffman, and Michel Foucault, and the way the political left took them up. His motivation was what he saw as the fundamentally political nature of states of health. Consequently, the focus on physiology as the arbiter of illness was misguided, and he argued that the ability to claim a right to treatment was dependent on recognizing this.

Sedgwick begins with a criticism of those who seek to liberate society's abnormal individuals from a supposed tyranny of psychiatry, those who argue that mental illness, absent physical proof, is not real illness.

> Immanent theorists of mental illness, whether in sociology or outside it, have usually had to begin by denying the validity of a natural science perspective on psychological abnormalities. (Sedgwick, 1982, p. 17)

This is the position which those who debate the reality of ADHD repeat, as

shown above. The exchanges on whether ADHD has a test or objective measure, the emphasis on physiology, is covert scientism. It implies that 'real', that is to say, legitimate, disorders are not the product of value judgments but rather the product of good and disinterested science, and physiology is therefore the arbiter of legitimacy:

> Thus we reach the position of the present day where any characterisation of an 'illness' which is not amenable to a diagnosis drawn from physiology or to a therapy based on chemical, electrical or surgical technique becomes suspect as not constituting, perhaps, an illness at all. Such has been the fate of mental illness in our own epoch. (Sedgwick, 1982, p. 36)

Sedgwick presents two problems with this: Firstly, to take disorders as natural rather than as a function of values about how people and the world should be exempts discussions of disorder from political life. It reduces discussions about health and illness from what ought to be the case, to what is invariably and intransigently the case. Secondly, anti-psychiatry movements which argued that illness had to be objectively physiological to be real did not liberate human variation from the clutches of psychiatry, it simply reinforced the incentive to provide a physiological account of mental disorder:

> In seizing on the value-laden, subjective, 'political' elements of psychiatric diagnosis and treatment, they have implicitly—and sometimes, indeed, explicitly—conceded the value-free, apolitical and 'objective' character of medicine-in-general. (Sedgwick, 1982, p. 26)

Such a perspective prevents making any kind of demand on services and politicians for aid. The way in which one defines and treats health and illness is dislocated from the distribution of resources and rights in society, becoming a programmatic exercise of measurement and alteration.

In resistance to this perspective, Sedgwick anticipates Ereshefsky's distinction between state descriptions and normative claims. For Sedgwick, the normative claim is the motive force behind ascriptions of disorder. Disorder is not simply an abnormal state. Nor is it an abnormal state which leads to harm. It is first and foremost a disvalued way of being:

> *All sickness is essentially deviancy*. That is to say, no attribution of sickness to any being can be made without the expectation of some alternative state of affairs which is considered more desirable. In the absence of this normative alternative, the presence of a particular bodily or subjective state will not in itself lead to an attribution of illness. (Sedgwick, 1982, p. 32)

Against those who would take this to mean that disorder is imposed on society's deviants or non-conformists against their nature and their interests, ascriptions of disorder are not necessarily imposed on people who are unwilling or indifferent. People seek medical treatment for themselves in part because they disvalue something about their physiology, and come to frame that disvaluation as of medical interest and solution. Furthermore, people's values about their bodies and behaviours do not come from nowhere; social life can generate, share, communicate, and transform them, and are a function of the demands of the environments in which people find themselves.

Sedgwick is also bold enough to extend this analysis of disorder to all health and illness:

> The attribution of illness always proceeds from the computation of a gap between presented behaviour (or feeling) and some social norm. In practice of course we take the norm for granted, so that the broken arm or the elevated temperature is seen alone as the illness. But the broken arm would be no more of an illness than a broken fingernail unless it stopped us from achieving certain socially constructed goals; just as, if we could all function according to approved social requirements within any range of body temperature, thermometers would disappear from the household medical kit. (Sedgwick, 1982, pp. 34–35)

As I will show in the next section, some use the universality or extreme commonality of specific disorders and illnesses to demonstrate that such disorders are objective and therefore objectively legitimate entities. This is to say that if an illness is widespread, it is an affliction independent of evaluative claims. However, widespread disapproval is surely not evidence of the absence of disapproval:

> The existence of common or even universal illnesses testifies, not to the absence

> of a normative framework for judging pathology, but to the presence of very widespread norms. (Sedgwick, 1982, p. 33)

It is no surprise that many people disapprove of harmful states, what is notable is not the universality of the disease but the universality of the disapproval. Indeed, one can imagine that if disease were objective and independent of valuations then the ways in which culture took up disease would proliferate even more: some would ignore it, others would see it as curiosity, others would seek to alter it or imbue it with positive inflections, and so forth.

It is important to show that Sedgwick does not argue that all deviancy results in illness, despite what detractors claim (e.g. Klein, 1999, p. 421).

> This is not to say that illness amounts to any deviancy whatsoever from social expectations about how we should function. Some deviancies are regarded as instances not of sickness but of criminality, wickedness, poor upbringing or bad manners. (Sedgwick, 1982, p. 35)

Sedgwick recognizes that while attributions of undesirability are necessary and fundamental to attributions of disorder, they are not sufficient to explain such attributions. Physiological states, at least presumed ones, are necessary, as are social processes at play, and thus studies of medicalization find their locale.

Despite his critical commentary of Michel Foucault in *Psycho politics*, the two thinkers have an affinity. For Foucault's part:

> I have never said that madness does not exist, or that it is only a consequence of these institutions. That people are suffering, that people make trouble in society or in families, that is a reality. . . .
>
> It is not a critical history which has as its aim to demonstrate that behind this so-called knowledge there is only mythology, or perhaps nothing at all. My analysis is about the problematization of something which is real, but that problematization is something which is dependent on our knowledge, ideas, theories, techniques, social relations and economical processes. (Foucault, 1996, p. 418)

Definitions of Disorder in Practice

Whatever the strengths of any definition of disorder, there is also a practical problem: just as physicians and researchers are able to continue their practice without deliberating definitions of disorder, so too one wonders the extent to which the success of any philosophical definition influences practical inclusions and exclusions of disorder. The 'hybrid approach' of Jerome Wakefield has been undeniably influential in authoritative presentations of the legitimacy of disorders of inattention and hyperactivity, as I shall show. Furthermore, I will also show that these presentations commit errors Sedgwick anticipated:

> . . . the pitfalls of a biologistic approach towards the definition of health: an approach which, in attempting to eradicate social and personal value-judgments, may smuggle them back in through unexplored assumptions which are highly contentious. (Sedgwick, 1982, p. 15)

I will now do so through a close reading of the *International Consensus Statement on ADHD* (Barkley et al., 2002). This publication asserts that ADHD, as disorder, 'exists', 'is valid', 'genuine', 'real', and 'legitimate', and that it is all of these things to the extent it meets the criteria it provides. The Consensus Statement also asserts that there is sufficient and substantial evidence to do so, and provides an impressive list of ADHD research throughout the 20th century to support the claim. I agree that the evidence presents a set of people who exhibit behaviours which can be described in psychological terms and that these behaviours are connected with harm; I do not aim to contradict the claims or interpretations of those works. However, in the following section, I am going to work through the criteria provided by the Consensus Statement. These criteria, provided in defense of ADHD, suffer conceptual problems and are value-laden and value-relative.[4] Though the criteria provided appear to be objective measures met by scientific inquiry, they can only be satisfied if one holds particular values. What I am interested in here is how the Statement's alteration of Wakefield's 'Harmful Dysfunction Analysis' gets rid of any critical stance afforded by the value component of disorder. Whatever the truth of the contents of the Statement's bibliography, for ADHD to be a disorder according to its criteria, one has to also

adhere to values about what sort of behaviours are desirable, and the use of concepts of dysfunctional or failed physical states is a reliance not on objective properties of bodies but on normative expectations of behavior and contingent circumstances.

II: The Analysis of Consensus Statements

The abundance of research areas and the contested status of ADHD have prompted a number of 'consensus statements' on ADHD from clinicians and scientists, often under the aegis of professional organizations and published in academic journals. While these consensus statements differ in their specific ends and content, they are meant to provide a summary of established and recognized scientific conclusions about ADHD to an academic, professional, or public audience. These consensus statements rarely call something a 'real' disorder; they rely more on the concept of validity—thus, they address whether or not ADHD is a *valid* disorder. To the extent they defend the existence of ADHD, it is again through evidence which shows that ADHD has a biological foundation and causes impairment to those so diagnosed.

Consensus Statements

The National Institutes of Health (NIH) in the United States issues consensus statements periodically. These result from NIH-organized conferences on topics which exhibit controversy or inconsistent approaches, where sufficient scientific research exists to make consensus possible, and where there is notable public interest (National Institutes of Health, 2010).

First proposed in 1996, the NIH organized a 1998 conference for ADHD, releasing their consensus statement in November of that year (Jensen, 2000). Titled *NIH consensus statement: Diagnosis and treatment of Attention-Deficit Hyperactivity Disorder (ADHD)* (National Institutes of Health, 1998), this document says, under the heading "What is the scientific evidence to support ADHD as a disorder?":

> The diagnosis of ADHD can be made reliably using well-tested diagnostic interview methods. However, as of yet, there is no independent valid test for

> ADHD. (1998, p. 7)

Nonetheless,

> evidence supporting the validity of ADHD includes the long-term developmental course of ADHD over time, cross-national studies revealing similar risk factors, familial aggregation of ADHD (which may be genetic or environmental), and heritability. (1998, p. 7)

A more recent consensus statement, this one international, is the *International consensus statement on attention-deficit/hyperactivity disorder (ADHD) and disruptive behaviour disorders (DBDs): Clinical implications and treatment practice suggestions*[5] (Kutcher et al., 2004). It says public attitudes towards children with ADHD behaviours as "'just plain bad'" (p. 12) require "a shift in attitude to change the categorisation 'bad' to 'handicapped'" (p. 13). It expresses concern towards the attitudes of the international medical community, which they say has been slow to recognize ADHD and other behavior disorders as legitimate medical conditions. One of their goals is

> promoting the discussion and dissemination of pertinent research findings—results that indicate *the biological natures* [italics added] of ADHD and DBDs, and establish the need to treat youngsters with these disorders. (p. 13)

The American Academy of Child and Adolescent Psychiatry (AACAP) reiterates this biological ground of ADHD in their Practice Parameters[6] for ADHD, released in 1997 and 2007, saying "the evidence . . . converges to suggests that there is a substantial genetic contribution to the etiology of ADHD" (1997, p. 90) and that "the scientific literature, although far less developed than for children, supports the validity of the diagnosis of ADHD in adults" (p. 104). The AACAP's most recent Practice Parameter concludes

> Although scientists and clinicians debate the best way to diagnose and treat ADHD, there is no debate among competent and well informed health care professionals that ADHD is a valid neurobiological condition that causes significant impairment in those whom it afflicts. (2007, p. 894)

By invoking impairment, or more generally, outcomes of 'harm', and also

raising the matter of a biological foundation to the disorder, most consensus statements do reflect the general points on which debates over definitions of disorder turn.

The Question of Validity

Willcutt & Carlson (2005) provide an excellent overview of how 'validity' is used in the ADHD context, and it can be used in a number of ways.[7] The overarching concept, however, diagnostic validity,[8] says nothing about a material basis for disorder:

> Diagnostic validity hinges on a straightforward question: do the symptoms of ADHD impair an individual's functioning sufficiently to warrant treatment? In addition, it must be demonstrated that the disorder can be measured reliably and distinguished consistently from other related disorders. (2005, p. 220)

Impairment and distinction from other disorders are the two main criteria for the validity of disorders, including ADHD. There must be evidence that impairment is an outcome, and the construct in question should not be conflated with other disorders, nor should it subsume distinct types of disorder. Thus, diagnostic validity should not refer to how well measures of the disorder match the hypothesized entity, when for such a construct there is nothing to the entity but those measures, a position which Kendell & Jablensky (2003) reaffirm. Validity is actually a measure of reliability, of the consistency of observations and measures among observers.

> There are no solid independent validating measures. . . . what is being measured is reliability (agreement) rather than validity ("truth"). (P. H. Wender, 1995, p. 43)

However, the consensus statements do not always specify what sense they are using 'valid', and measures of specific types of validity are not in themselves sufficient to indicate disorder, nor can they simply be aggregated. There are several subtypes of validity, along with the informal use of 'valid' to mean legitimate or justified, outside of any scientific or statistical framework. Furthermore, whatever the validity of measures of coherency and outcome, they

do not tackle the demarcation problem more specifically—they do not justify why measures of conceptual coherency and impairment make a phenomenon a legitimate object of medical science to begin with.

HDA and the International Consensus Statement on ADHD

In contrast to normativism and naturalism, and exemplifying the hybrid position of definitions of disorder, Jerome Wakefield's Harmful Dysfunction Analysis (HDA) is the most influential and contested approach to determining what constitutes disorder. First introduced in *American Psychologist* in 1992 in an article titled 'The concept of mental disorder: On the boundary between biological facts and social values' (1992), Wakefield has reiterated and defended his HDA perspective (Wakefield, 1997, 1999, 2007). As befits a hybrid approach to disorder, the two components are what Wakefield calls a 'value' component and a 'factual' component. His original statement of HDA is as follows:

> I propose a hybrid account of disorder as harmful dysfunction, wherein *dysfunction* is a scientific and factual term based in evolutionary biology that refers to the failure of an internal mechanism to perform a natural function for which it was designed, and *harmful* is a value term referring to the consequences that occur to the person because of the dysfunction and are deemed negative by sociocultural standards. (Wakefield, 1992, p. 374)

Thus, disorders are something which constitutes harm to the individual, but said harm must be the result of a somatic dysfunction. Wakefield has stringently held to this definition.[9] Whether Wakefield's HDA is satisfactory and useful or not, prominent defenses of ADHD's legitimacy as a disorder have recruited HDA.

Robert Spitzer, chair of the DSM-III's task force faced the difficulty of demarcating disorder from non-disorder in the 1970s, particularly in the case of homosexuality's inclusion in the DSM and the skepticism engendered by the Rosenhan experiment.[10] Spitzer lauds Wakefield's HDA as a major advance, finding that it surmounts the problems he encountered.[11] Another significant use of Wakefield's HDA is in the *International Consensus Statement on ADHD* (Barkley et al., 2002) published in *Clinical Child and Family Psychology Review*

('the Consensus Statement'). Unrelated to NIH consensus statements, this Statement was led by Russell Barkley and featured 85 co-signers, mostly American physicians, psychologists, and medical researchers studying ADHD. Elsewhere, Barkley (2006d) calls the statement a "landmark historical development", and provides his reasons for producing it:

> I organized this consensus group out of my own growing frustration and my sense that many other professionals have had the same experiences as my colleagues and I have had in dealing with superficial, biased, or sensational media accounts of ADHD. (Barkley, 2006d, p. 38)

In this vein, the Consensus Statement sought to address "the periodic inaccurate portrayal of attention deficit hyperactivity disorder in media reports" (2002, p. 89). Defending ADHD's scientific justification as a "genuine disorder", the Consensus Statement is meant:

> as a reference on the status of the scientific findings concerning this disorder, its validity, and its adverse impact on the lives of those diagnosed with the disorder as of this writing. (2002, p. 89)[12]

It concludes that media and journalists have an obligation to portray ADHD in line with the scientific evidence, and that to do otherwise is unjust:

> ADHD should be depicted in the media as realistically and accurately as it is depicted in science—as a valid disorder having varied and substantial adverse impact on those who suffer from it through no fault of their own or their parents and teachers. (2002, pp. 90–91)

In 2004, *Clinical Child and Family Psychology Review* published a critical response to this Statement from UK child and adolescent psychiatrist Sami Timimi and 33 coendorsers, of whom a greater proportion were from the UK (Timimi et al., 2004). Sami Timimi has pursued criticisms of ADHD elsewhere (Timimi, 2002, 2005; Timimi & Leo, 2009). In the same issue appeared a rebuttal from Barkley and 20 coendorsers (Barkley et al., 2004).

The Consensus Statement and its response to criticism are notable because in the defense of ADHD as a justified medical disorder, they make recourse to

Wakefield's HDA. The following passage is worth quoting in full, both to demonstrate the similarity it has to HDA and because I will return to it later:

> Various approaches have been used to establish whether a condition rises to the level of a valid medical or psychiatric disorder. A very useful one stipulates that there must be scientifically established evidence that those suffering the condition have a serious deficiency in or failure of a physical or psychological mechanism that is universal to humans. That is, all humans normally would be expected, regardless of culture, to have developed that mental ability.
>
> And there must be equally incontrovertible scientific evidence that this serious deficiency leads to harm to the individual. Harm is established through evidence of increased mortality, morbidity, or impairment in the major life activities required of one's developmental stage in life. Major life activities are those domains of functioning such as education, social relationships, family functioning, independence and self-sufficiency, and occupational functioning that all humans of that developmental level are expected to perform. (Barkley et al., 2002, p. 89)

While the Consensus Statement does not cite Wakefield directly in the above passage, one of Wakefield's articles on HDA (Wakefield, 1999) is in the extensive supporting references, and it is the only work in the supporting references dealing with definitions of disorder.[13] The 2004 response by Barkley et al. to the critical commentary cites Wakefield explicitly (Wakefield, 1997, 1999) in support of the following:

> (1) valid disorders are failures or severe deficiencies in psychological adaptations (functional mental mechanisms) that are universal to humans and (2) the failures or deficiencies result in harm (increased morbidity, mortality, or impairment in major life activities) (Barkley et al., 2004, p. 66)

Thus, both the original Consensus Statement and the 2004 follow-up present, in modified form, the harm criterion and dysfunction criterion from Wakefield's HDA.[14]

Because my analysis of the Consensus Statement is extensive and highly focused, I foresee the objection that I am reading the Statement unfairly. Surely

the Consensus Statement is not a venue where the signers are expected to present in-depth discussions about what constitutes disorder? My response is that the Consensus Statement is precisely where a defensible definition of disorder is required, and the Statement expresses no reservation about these criteria being satisfactory. Furthermore, if my argument is correct, it does not invalidate the truth-claims of clinical research on physical states. It does not show the critical response by Timimi et al. to the Consensus Statement to be correct, nor does it require one to conclude that ADHD is not real, or has an illegitimate status of disorder. What it does do is show that these defenses of ADHD's legitimacy, on the surface about evidence of physical states and symptoms, have to rely on normative concepts just as all definitions of disorder do.

Analysis of The Consensus Statement

The Consensus Statement and the follow-up provide criteria for determining whether ADHD is a disorder. These criteria invoke human universals, deficiency and failure, functionality, normality, culture, and harm. In this section, I will look closely at the Statement's criteria. I argue that they offer conceptual problems and that they have implicit normative grounds.

First criterion: Dysfunction of a universal mechanism.

The Consensus Statement says that given a group of people, namely 'those suffering the condition',[15] there must be evidence that they "have a serious deficiency in or failure of a physical or psychological mechanism that is universal to humans" (2002, p. 89). In other words, to satisfy this criterion, one has to (1) establish a universal human mechanism, (2) show that a group of people exhibit a deficiency in or failure of said mechanism, and (3) show that those people are suffering as a result of said deficiency or failure.

What is this mechanism that must be universal to humans, whose failure or deficiency results in harm? The Consensus Statement says "deficits in behavioral inhibition and sustained attention are central to this disorder—facts demonstrated through hundreds of scientific studies" (2002, pp. 89–90). Elsewhere, Barkley says that "For 'classic' ADHD, it is reasonably well substantiated that this

dysfunctional universal mental mechanism is in response inhibition" (2001, p. 491). Consequently, the human psychological mechanisms under consideration are behavioural/response inhibition and sustained attention, all of which I will refer to in this section as 'inhibitory control'. To meet the Consensus Statement's criteria for validity, then, one must show that inhibitory control is a human universal.

However, I argue that it is not possible to establish a universal human mechanism, whether inhibitory control or otherwise. American anthropologist Donald E. Brown's *Human universals* (1991) discusses universals at several scales, "in the individual, in society, in culture, and in language" (p. 39), and defends the existence of several. For example, we may hypothesize something universal to all cultures, such as an incest taboo. But the Consensus Statement requires that the phenomenon in question be universal at the level of 'the human'. There are three options by which we may approach this.

The first option to interpret the universality criterion is to assert that inhibitory control is universal, by definition. For anything to be 'human' it must have the property of inhibitory control. Those without inhibitory control are not human. However, the Consensus Statement does not support such an interpretation.

The second option is to show through observation and documentation of all people that inhibitory control is a human universal. It is an understatement to say that there are methodological difficulties with this.[16] I agree, however, with Brown who says the provisional assertion of universals can be justified, given one's method and evidence, and that "all statements of universality are hypotheses or arguments based on various limited kinds of evidence" (1991, p. 51). I agree with the qualifier that positive evidence for the mechanism in question would contribute to supporting the hypothesis of universality. In the absence of any opposing cases, if we find no humans lacking inhibitory control, we may infer that it is universal. However, for the matter at hand, the case of ADHD, it is the very existence of contradictory evidence which has made the Consensus Statement resort to the concept of universality. Were the mechanism of inhibitory control truly universal, then there would be no need to account for exceptions.

Those people demonstrating an absence of the mechanism in question are not evidence of particular failures of something universal, they are evidence that there is no such universal. Otherwise we are confronted with a failed distinction between a universal phenomenon with particular absences, and a non-universal phenomenon.

An objection is that the Consensus Statement is talking not about the absence of inhibitory control, but its deficiency or failure. All humans have inhibitory control, but there are those in whom it fails, or does not work properly, or is at an abnormal level. In other words, the behaviours which prompt us to ask whether they demonstrate a disorder are not what must be universal. What is universal is the mechanism behind the behaviours. The potential for inhibitory control is present in all humans, but goes unrealized in disordered cases. Thus, the third option is to assert and show that all people possess the potential for a particular level of inhibitory control. It is constitutive as well as demonstrable: the definition of human includes 'inhibitory control', all humans have the potential or capability for inhibiting action, yet people at the ends of the distribution have a deficiency or malfunction of said attribute. Inhibitory control is not an all-or-nothing proposition; people demonstrate it to matter of degree.

However, this third position is subject to problems as well. The morphological and physiological variation documented in humans casts doubt on the existence of any universal mechanism, even one which is deficient or not operating properly. I do not raise the following examples lightly, but consider those who demonstrate congenital malformations, such as being born without a frontal lobe or the requisite connections in the central nervous system, who presumably do not exhibit inhibitory control nor the capacity for it. This returns us to previous problems. Are such people showing ostensible universal mechanisms to not be universal, or are those people to be excluded from the category of human? Either the mechanism is not universal, or such cases are not in the class of the human. The latter conclusion seems to be a redefinition of terms out of conceptual convenience, and it admits significant moral implications. Furthermore, if we say those physically lacking the potential for adequate inhibitory control aren't

human, then we have multiplied our demarcation problems. We would face the following problem: On one hand, some entities exhibit a physical state which excludes them from the category of 'human' altogether. They are, in a sense, not even disordered, since they are excluded from participating in the universal class 'human', participation in which is the first grounds for determining disorder. On the other hand, other entities exhibit a physical state which includes them in the category but which is evidence of a 'disorder'. Which physical states exclude entities from the category 'human', and which include those entities but are evidence of disorder? The response that extreme cases are obviously such, and thus are not part of the discussion, is special pleading which reiterates the problem. If demarcation criteria cannot handle limit-cases, then they have little utility for demarcation. The Consensus Statement does not address these problems. The question of whether inhibitory control, or the potential for that mechanism, is a universal cannot be satisfied as it stands, whether conceptually or empirically.

This takes me to the next point in evaluating the Consensus Statement criteria. Whether universal or not, those individuals under consideration exhibit a 'serious deficiency in or failure of a physical or psychological mechanism'. How might we meet the criteria that those with ADHD have a serious deficiency or failure in inhibitory control? There are rating scales for behavioural inhibition and sustained attention; one could rank people according to these scales and identify deficiency, in much the same way that we might rank deficiencies of melanin or white blood cells. However, whereas ranking of quantitative data is descriptive, the term 'deficiency' is evaluative. It suggests more than difference, that one is lacking something desirable or necessary. Is a male who is 5–foot–3 deficient in height, and is this deficiency an essential property of the individual or is it a relative property considering averages and the existence of taller people? Furthermore, does an individual who is 7 feet tall possess an excess of height? For something to be deficient there must be a norm against which we compare our measure. Granted, this norm may be a statistical one. However, if so, we are left needing to make the leap from 'deficiency' to 'disorder'. Some would say that if the

deficiency causes harm then this suffices as adequate criteria, but this too suffers problems, which I will address below. Prior to that, I will examine also the consideration of 'failure'.

How are we to know when mechanisms, particularly the mechanisms of inhibitory control, have failed? Failure too is a normative concept, because to determine if something has failed, we must have some reference in mind, some desired outcome or intended function of the mechanism, which the mechanism does not attain. Defining 'failure' as difference is insufficient, for a dog is not a failed cat, a left-hander is not a failed right-hander, and a person who responds to stimuli in one fashion is not demonstrating a failure vis-à-vis a person who responds to stimuli in another fashion. Not, that is, unless we have some desired outcome or value in mind. Someone whose level of inhibitory control demonstrates a failed mechanism does so only within the context of a successful performance, only within a context of something expected, something which should or ought to happen.

Failure or deficiency is not an objective property of things; it is an evaluative concept. In colloquial terms, something fails when it does not do what it *ought*. Even in the basest examples of failure of somatic mechanisms, such as that of a break, this holds. A broken bone is a failure of the bone to do what I want it to do, what I value it doing, what I intend it to do, what it ought or should be doing. That most people share these values makes it no less evaluative; yes the bone has objectively broken, but it has failed in reference to the subject's values. The failure of a bridge to stay up, the failure of a student to receive a passing grade, or the failure of a psychological mechanism to act in a prescribed way requires reference to what each object in these examples ought to have done.

If one were to give to clinical research a novel biological arrangement, whether a body, plant, organ, or organism, and ask what parts of it have failed, one would have to ask 'well what is it supposed to do, what should it do?' To say that those with ADHD have a failed mechanism or a deficient mechanism may be correct, but there is no way to derive this biological ought outside of what is valued. Hearts may fail to pump, bones may fail to hold, but these failures are not

objective failures which serendipitously or arbitrarily coincide with our interests in how our bodies should work. Medical treatment and scientific accounts of bodies' failures and deficiencies would be fundamentally independent. Specific to the ADHD case, would we be able to tell that some mechanism had failed if those diagnosed with ADHD did not contravene what they valued or what others around them valued?

If the existence of deficiency or failure is shown by impairment, by the mismatch between our physical state and what sort of physical state we value, then it moves us into the 'harm' component of disorder. This does not show that the two components, harm and deficiency, are harmoniously linked and justified. It shows that serious deficiency and failure cannot be judged without accounting for harm. Consequently, 'deficiency' and 'failure' are normative concepts. It does not mean that there is a deficiency, as demonstrated through evidence *and* this deficiency causes harm, also as demonstrated through evidence; it means that the appellation of deficiency does not make sense independent of an assessment of harm. This does not so much lead us into harm as the second criterion for disorder as much as it makes harm the primary criterion. We cannot identify a deficiency as deficiency and then look for the harm it results in; we must begin with harm and attribute the status of 'deficiency' to that harm.

As a last comment on the first criterion from the Consensus Statement, the Statement says that there must be 'scientifically established evidence' for this failure or deficiency. There may very well be scientifically established evidence of physical states; it appears to be the case. Furthermore, there is plenty of evidence that those demonstrating said physical states experience harm. Finally, it is convincing that those physical states play some causal role in harm. However, this is only within circumstances where particular behaviours or physical states are rewarded or desirable and those defining ADHD are not; there are circumstances, real and hypothetical, where the physical states of ADHD would be rewarded or inconsequential. This is shown by the fact that people with ADHD are able to do some things as successfully as non-ADHD counterparts and without suffering. In a hypothetical world where those things are all people do then

ADHD is not a disorder. To say ‘we are concerned with the real world, where people in fact do suffer’, I have no disagreement, simply that suffering is a result of expectations and values within contingent and variable environments.

The Statement’s criteria rely implicitly on normative concepts. But the consensus statement further qualifies these criteria, by saying ‘all humans normally would be expected, regardless of culture, to have developed [inhibitory control]’. What is it to say that all humans would normally be expected to develop inhibitory control? To say that the normal situation is the one in which exceptions such as failures or deficiencies do not occur begs the question—it asserts a situation lacking specific exceptions as the reference with which to judge what is to count as an exception. Expectations about behavior, in a cultural vacuum, do not exist, and it is unclear whether expectations or the behavior are causal. Even if we were to grant that inhibitory control is a universal, at least potentially, but requires pharmacology and behavior modification to be realized, then the conditions under which one could ‘normally expect all humans to develop it, regardless of culture’ don’t exist.

Before moving on to the ‘harm’ component of the Statement, there is a potential objection about my reading of ‘deficiency’ and ‘failure’. Wakefield’s presentation of HDA would say that a deficiency or failed mechanism of inhibitory control is a dysfunction, and he argues that dysfunction is objective, not normative. His argument hinges on the claim that dysfunction belongs to the category of ‘state description’ and not ‘normative claim’. My argument above would say that the function of some entity can only be made with reference to subjective plans and goals; it is not a property of something. A piece of metal has no objectively determinable function; depending on what we want or value it doing, it might be a perfectly functional car part, doorstop, or sculpture. If our values change, the same piece of metal may suddenly deserve the appellation ‘dysfunctional’. Several have critiqued Wakefield’s analysis of function as framing a normative conception of function as something objective (Fulford, 1999; Houts, 2001; Houts & Follette, 1998; D. Murphy & Woolfolk, 2000; Woolfolk, 1999).

Wakefield considers biological function to be of a different sort than the functions we ascribe to non-biological things, however:

> *dysfunction* is a scientific and factual term based in evolutionary biology that refers to the failure of an internal mechanism to perform a natural function for which it was designed [by evolution]. (Wakefield, 1992, p. 374)

Wakefield's perennial example is the heart: "the heart's effect of pumping the blood is also part of the heart's explanation, in that one can legitimately answer a question like 'why do we have hearts?' or 'why do hearts exist?' with 'because hearts pump the blood'" (2007, p. 151). Wakefield cites evolutionary biology and evolutionary psychology as the means to uncover biological function. For example, we have hearts because of their function in pumping blood. If hearts were blue instead of red, this would not have had any bearing on evolution, insofar as blue hearts confer no advantage over red ones. However, the function of the heart, pumping blood, does confer an advantage. If hearts were not red, we would still have them; if hearts did not pump blood we would not have them:

> *a natural function of an organ or other mechanism is an effect of the organ or mechanism that enters into an explanation of the existence, structure, or activity of the organ or mechanism*. (2007, p. 152)

Wakefield has steadfastly held to this position without change despite the critiques referenced above, finding them unconvincing. However, whether or not Wakefield is correct in saying that we might use evolutionary biology to determine dysfunction, there are few conclusive examples that one can currently do this. Arguments for the success of HDA begin with the experience of harm or impairment, and then produce an argument that the ostensible somatic ground for that harm is dysfunctional, but such an analysis of dysfunction is currently underdeveloped and speculative, (e.g. Jensen et al., 1997). One wonders whether it is possible for evolutionary biology to determine which functions of dopamine receptors have been selected by evolution, or whether impulsive behavior is an effect which explains the origin of that behavior, or if it could show a function of neurotransmitters which explains the existence of those neurotransmitters?

Evolutionary biology may very well do this, but the Consensus Statement does not provide evidence to this effect and such evidence does not exist.[17]

What is more relevant, whatever the successes or failures of Wakefield's approach, they do not affect its recruitment by such documents as the Consensus Statement. The danger is that HDA becomes a device for legitimating a conclusion, not demarcating difficult cases.

Second criterion: Analysis of harm.

The second major component of the Consensus Statement criteria by which we evaluate disorder is that of harm, as briefly mentioned above. While in HDA it is admittedly a value component, here the Consensus Statement attempts to divest the harm criteria of any value-relative aspect, framing it as an objective consequence: "Harm is established through evidence of increased mortality, morbidity, or impairment in the major life activities required of one's developmental stage in life" (2002, p. 89) and in the follow-up, says "the failures or deficiencies result in harm (increased morbidity, mortality, or impairment in major life activities)" (Barkley et al., 2004, p. 66). Barkley et al. thus cast the value component in objective terms treating it as something for which scientific evidence is the final arbiter. Given an operating definition for morbidity, mortality, or impairment, one can document the rates thereof and their correlation with the universal dysfunction. This approach forecloses discussion, by circumscribing 'harm' as these consequences alone. Despite this, the harm component remains a value component, precisely to the extent to which people value avoiding morbidity, mortality, and impairment in major life activities. Again, the fact that most if not all people value these things makes them no less a matter of value. I do not deny that those diagnosed with ADHD will experience harm. However, its presentation here occludes the contextual role harm plays. Consider, for example, a building with low accessibility. Some users of this building may suffer impairment in using the building. It may be possible to intervene in their bodies, to provide individual interventions so that they can access the building again. However, it does not ask how complicit the building is in generating that impairment. The response that ADHD behaviours cause

impairment in multiple environments simply says that multiple environments are impairing and does not distinguish somatic causes from contextual ones. For example, left-handedness can lead to harm using devices geared towards right-handedness. There is a clear physiological property, handedness, which is statistically significant as a determinant of harm. But the solutions to left-handedness need not be clinical whatsoever, and to locate the problem in the individual or as a disorder is misguided.

This does not invalidate ADHD as a disorder, but it might make us take notice of things occluded by the Statement's position, such as the contextual nature of the behavior, both in what elicits the behavior and in what contexts it might be marked as deficient.[18]

Conclusion

So where does this leave us? What does it do to the Consensus Statement if their description of Wakefield is inaccurate, and even if accurate, lacking? Such problems do not indicate whether ADHD should or should not be a disorder. It does not say whether treatment is desirable or successful, nor does it deny the harms people identified with ADHD experience. However, it shows that one significant attempt to justify the legitimacy of ADHD as disorder has made recourse, perhaps unwittingly, to normative concepts. The fundamental role value considerations play in the constitution of disorder deserves more attention.

I am not arguing that bodies cannot fail, that we cannot identify deficiencies. However, I am saying that to do so requires a normative framework about how humans and the world ought to be. Also, harm comes first in determining disorder. The relevance of physical states is only because they result in harm, and are disvalued. There is some evidence that this is how disorder works, that it deals with complaints presented in the clinic, and then researchers look for antecedent physical causes. Physicians do not document physical states and then ask if people suffer from them. The clinical research on ADHD is not interested in documenting human variation; it is interested in helping people obtain a state of affairs in which outcomes fit values and norms.

If the introduction of a disorder into the DSM is both a state description and

normative claim then we may ask who gets a voice when it comes to both state descriptions and normative claims. Scientific research may be the best arbiter of state descriptions, but it is not clear that it is entitled to a monopoly on claims about what is valued and what types of bodies are valued.[19]

What my argument will not do is satisfy those who see psychiatric diagnosis of ADHD as unjust and who see the unmasking of the legitimacy of said diagnosis as emancipatory. The more sophisticated question is how ADHD and related interventions work to produce subjects with particular dispositions, preferences, and self-understandings; and what means are at play for these subjects (money, medication, time, the right to speak); the sum of which is a field of power relations. If disorder necessarily has a value component, and this component is fundamental (and takes priority over dysfunction and failure), then it is a straightforward question to ask what values are at stake in ADHD. As I will argue in Chapter 4, the values which are at stake are not simply those related to the primary symptoms of ADHD. It is insufficient to say that particular institutions or agents value individuals and themselves who are not hyperactive, inattentive, or impulsive. Those with ADHD are described as hyperactive, inattentive, and impulsive in particular ways, in particular contexts. The desired outcomes are also specific; there is no desire for an objective simple reduction in measures of activity, impulsivity, and attention. Under the auspices of treating ADHD a particular kind of person is developed, a person who one *ought* to be.

Finally, to return to the initial point I raised in this chapter and my indebtedness to Sedgwick, to discuss ADHD as a political, ethical, or social issue one does not have to show that ADHD has no somatic component, or that it is somehow not real. There is no 'epistemological scarcity', no trade-off between biological/scientific accounts of the world and social accounts where medical claims render sociological claims redundant. Most importantly to this claim, however, is that sociological analyses of disorder are not a semiotic layer imposed on a real, fundamental, biological substrate. It is not that objective physical states are identifiable as disorder, only then to provoke moral quandaries, or then become translated into 'lived experience', or taken up by politicians and moral

entrepreneurs, or then have meaning applied to them. Value considerations do not ride the coattails of objective determinations of disorder, as though the latter could continue whether values about disorders are there or not. Rather, any conceptions and claims about disorder are meaningful only because of their normative core. Thus, a robust sociology of the values implicit in disorder does not compete with the descriptive claims of medical science; it subsumes them. ADHD skepticism questions the measurement techniques of medical science and pits social or cultural understandings against medical understandings. Yet disorder, and by extension ADHD, is precisely deserving of sociological analysis to the extent that it is a real disorder.

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[1] I note that Malacrida, Rafalovich, and Bailey all avail of Michel Foucault's work. However, I do not believe the methodological commitments I made to Foucault's work, described in Chapter 2**,** oblige me to avoid the arguments I make in this chapter.

[2] Whether defining 'health' or 'illness', 'disease' or 'disorder', the central task is demarcating what is justifiably an object of medicine and what is not. Thus, while the issues are consistent, the terms are not. I will use the covering term 'disorder' throughout.

[3] Again, there is variation in terminology; I am following Ereshefsky (2009) for the naturalist/normativist distinction. Scadding (1996) employs a nominalist/essentialist distinction. Murphy (2009) uses the objectivist/constructivist distinction in a similar manner to the naturalist/normativist distinction (though he makes finer and useful distinctions between the two poles). While these pairs of terms are not entirely homologous, their differences are not significant for the present discussion.

[4] Simon Bailey (2009, pp. 302–305) also looks critically at the Consensus Statement, specifically Barkley's first criterion. Briefly he argues how there is no normal functioning outside of culture, that 'psychiatric and medical conditions' are part of a 'Western discourse of medicine' and therefore constrained by the philosophical framework said discourse inherits, and he expresses skepticism towards the possibility of demonstrating 'universality'. Our approaches diverge; while I agree with his third point, our arguments take different lines, and most notably, Bailey does not relate the Statement to Wakefield's HDA.

[5] This Consensus Statement specifies that it was the result of a meeting initiated and sponsored by Johnson & Johnson Pharmaceuticals, with panellists chosen by the Canadian chair (Kutcher et al., 2004, p. 13). Johnson & Johnson subsidiary Janssen-Ortho has distributed and marketed their ADHD medication Concerta in Canada since approval in 2003.

[6] The Practice Parameters (1997, 2007) don't present themselves as 'consensus statements', but they are similar in form and intent, being the result of collaboration among several significant members and groups of the AACAP, aiming to provide physicians with guidelines on treatment based on a review and synopsis of the relevant literature.

[7] Willcutt & Carlson discuss several relevant subtypes of validity, including *internal validity*, determined by the statistical analysis of the coexistence of symptoms, and assessment of inter-rater and test-retest reliability, in order to obtain parsimonious and specific diagnostic criteria; *criterion validity*, referring to the correlation of current symptoms with current and future impairment; and *discriminant validity*; referring to the ability of criteria to diagnose one and only one disorder without implicating others and without mistakenly capturing two disorders as one.

[8] The seminal article on diagnostic validity and psychiatric diagnosis is by Eli Robins and Samuel Guze (1970). Their efforts, coupled with the Feighner criteria as well as the Research Diagnostic Criteria were grounds for the approaches taken in DSM-III and subsequent DSM editions (Kendler, Muñoz, & Murphy, 2010; Vieta & Phillips, 2007).

[9] Compare the excerpt above with Wakefield's more recent description of HDA:

> a disorder is a *harmful dysfunction*, where "harmful" is a value term, referring to conditions judged negative by sociocultural standards, and "dysfunction" is a scientific factual term, referring to failure of biologically designed functioning. In modern science, "dysfunction" is ultimately anchored in evolutionary biology and refers to failure of an internal mechanism to perform one of its naturally selected functions. (Wakefield, 2007, p. 149)

[10] David Rosenhan's classic study 'On being sane in insane places' (1973) had volunteers pose with symptoms of hallucinations to obtain entry into psychiatric hospitals. He also asked staff to detect false positives in their hospital when there were none. His publication generated considerable controversy about the ability of psychiatry to reliably diagnose and treat patients.

[11] In a response to a criticism of HDA as "heroic, but ultimately doomed" (Bergner, 1997, p. 239), Spitzer says "I would characterize it not only as heroic but brilliant!" (Spitzer, 1997, p. 260) which he restates when he says that Wakefield has "heroically enter[ed] the fray" of debates over disorder (Spitzer, 1999, p. 430). Spitzer and Wakefield have also collaborated on a number of works critical of the overinclusion of disorders in the DSM (Spitzer & Wakefield, 1999; Wakefield & Spitzer, 2002).

[12] In a comment preceding the Statement the journal's editors say "it seems to us that ADHD is a real neurobehavioral disorder" (Ollendick & Prinz, 2002, p. 87). Unlike the Editors' Comment in the journal, the Statement never says explicitly that ADHD is real, and I believe the language is

deliberate.

[13] It is odd that the Statement would cite this particular article of Wakefield's. While it captures his position, the cited article is Wakefield's response to an article by Lilienfeld & Mario (Lilienfeld & Marino, 1995). However, at the time the Consensus Statement was published, this was Wakefield's most current publication, and was published in the *Journal of Abnormal Psychology*, an APA journal, which may been of relevance or familiarity to the Statement's signers.

[14] Barkley uses Wakefield's criteria in defense of ADHD's legitimacy elsewhere (Barkley, 2006c, p. 93).

[15] There is an argument that the Consensus Statement here is tautological, and that to grant the existence of 'the condition' is to presume the existence of 'the disorder'. I disagree. There is a population covered by the DSM criteria and these people demonstrate consistency in experiences of suffering or impairment. This does not require, and the Statement does not suggest, that this is sufficient to constitute a disorder. Furthermore, the recognition of such a population and their experiences is not sufficient evidence for an antecedent physiological mechanism or causal links between the behaviours and those experiences. Neither does it show that those behaviours are, or are caused by, any dysfunction.

[16] To wit:

> The first and most obvious point about the demonstration of universals is that it is never done by exhaustive enumeration, showing that a phenomenon exists and existed in each known individual, society, culture, or language. (D. E. Brown, 1991, p. 51)

[17] At this point the discussion of HDA's merits and faults requires one to wrestle with tangled and contested arguments in the philosophy of biology, particularly arguments about the unit of selection, teleological commitments, and the status of 'function' itself. Wakefield's interlocutors have pointed at some of these problems, but such issues are a field unto themselves, covering a vast terrain of which demarcation problems in disorder are only a small subset. Even if Wakefield's approach is ultimately correct, appeals to HDA also inherit criticisms of HDA; if those who appeal to it can ignore criticisms without consequence then HDA has been appealed to unnecessarily, since nothing hinges on the correctness of the harmful dysfunction analysis.

[18] I have not devoted much discussion to the interim response to the Statement, *A critique of the International Consensus Statement on ADHD* (Timimi et al., 2004). That response shares some features of criticism discussed earlier, primarily the emphasis on whether or not there is sufficient physiological evidence for the disorder, as well as whether pharmacological treatment is justified or effective.

[19] Interestingly enough, the production of the DSM-V has opened the process up, at selected periods and through selected means, to public commentary (American Psychiatric Association, 2010).

Chapter 4: The Problems of ADHD: Disvalue, Disruption

Problems of Inattention and Hyperactivity

In this chapter I argue in favour of a claim which is already established: disorders of inattention and hyperactivity are disorders of behavior. However, I emphasize that as disorders of behavior, they are precisely about ways of being which are disvalued. The problems these disorders pose are of behavior, of conduct, of comportment, gone wrong, not problems of the material failure of bodies. I advance this argument through a look at shifting claims made on behalf of these disorders, in particular through two parallel understandings of the disruptive behavior of children diagnosed with disorders of inattention and hyperactivity. The first understanding is found in the definitions and measurement of hyperactivity made in the late 1960s and the 1970s. The attempt to provide an objective indicator of disorder in terms of quantified movement was not successful. Researchers had to make recourse to notions about intentions and the appropriateness of children's actions in order to classify behavior as hyperactive. The second parallel understanding is in descriptions of these children as out of control. This idea, of these children as out of control, bridges the somatic problem of a hyperactive body with the contemporary understanding of ADHD as a problem of behavioural inhibition. The problems of ADHD children could not be reduced to a body out of control, yet these children demonstrated disruption and experience impairment. This became understood as a self which was out of control. I look at how the literature expresses this in the example of classroom stimuli management. Such stimuli could theoretically captivate and overload a deficient perceptual system, leading to the uncontrolled release of a child's energy. Both these understandings merge at the end of the 1970s, with attention replacing hyperactivity as the defining characteristic of the disorder in the DSM-III in 1980. Through research on behavioural inhibition and its connection to inattentiveness, the hyperactive individual, conceived as a body out of control, becomes understood as a subject who is out of control. This move, from one's body to one's being, is particularly crucial in order to understand what people

have written about ADHD. Somatic evidence of inattention and hyperactivity has become an indicator not of excess movement but of social impairment. The body is neither the isolatable ground of behavior nor the final target of intervention, but through the body the hyperactive subject is clearly managed. In Foucault's words, we arrive at a scenario where "The soul is the effect and instrument of political anatomy; the soul is the prison of the body" (Foucault, 1979, p. 30). The purported lack of control over the body was generalized to a lack of control over the self, a self which cannot select among stimuli appropriately nor direct behavior in accordance with rules, a conclusion which I then explore fully in Chapter 5.

Hyperactive Bodies

Descriptions of Hyperactivity

As discussed in the preceding chapter, ascriptions of disorder rely on the disvaluation of a particular state of affairs for which there appears to be some individual somatic component.[1] In the analysis of a particular disorder, one can therefore ask what specifically is disvalued, by whom, and why this has come to be the case. What is disvalued about the common cold, for example? There is the opportunity to say more than, tautologically, 'people disvalue having the common cold'. We might think of the various discomforts those with a cold experience, but also how this disvaluation is a product of the inability to perform at one's job, how threats of contagion with and by others become meaningful and actionable, and what interventions for the common cold seek to alleviate. One can ask the same of disorders of inattention and hyperactivity: how such disorders exist in a network of affordances and constraints which result in the disvaluation of particular states of affairs. The very nomenclature of 'attention-deficit' and 'hyperactivity' give some indication of the features which make up these disorders, but they do not capture the long list of what states and behaviours are disvalued.

Current and past descriptions of disorders of inattention and hyperactivity exhibit a consistency, albeit a loose one. They describe children who are

disruptive and fail to respond to norms of bodily comportment. From Still's children who demonstrated "(1) passionateness; (2) spitefulness-cruelty; (3) jealousy; (4) lawlessness; (5) dishonesty; (6) wanton mischievousness-destructiveness; (7) shamelessness-immodesty; (8) sexual immorality; and (9) viciousness" (Still, 1902a, p. 1009) to those in Bradley's care who demonstrated "demanding, irritable behavior" (Bradley, 1948, in Bromley, 2006, p. 385) and were stubborn, inattentive, disruptive to others, and poorly-behaved, to more recent descriptions, where the quintessential hyperactive child is a whirlwind, moving through space and into objects, interrupting exchanges and breaking things. This child "continually explores his environment, he takes his toys apart, he annoys his parents and playmates. "Parents describe him as 'woundup' and in 'perpetual motion'" (Bakwin, 1967, p. 26), he "cannot be diverted from an action" and "compulsively touches everything and everybody", "is unable to sit through a school project" "is unable to sit through a meal" "is unable to sit through a TV program" (B. F. Feingold, 1975, pp. 49–50). Children with ADHD may exhibit "constant, extreme motion; [such a] child usually moves quickly and noisily or is restless and fidgety" (Neuville, 1991, p. 49). A child with ADHD may be "a virtual maelstrom" (Freed & Parsons, 1997, p. 216). These children demonstrate "excessive body activity" (Jordan, 1998, p. 40) and "body energy overflow" (p. 44). In extreme cases, the child may be "so hyper and impulsive he'll run into traffic without stopping to look first" (Booth et al., 2002, p. 60).

The features which have characterized such disorders appear straightforward and constitutive. It seems true by definition that ADHD is a disorder of bodily movement, an intrinsic characteristic which the terms *hyperkinesis*, *hyperkinetic impulse disorder*, and the DSM-II's *hyperkinetic reaction of childhood* (American Psychiatric Association, 1968) reflected, and which the DSM-IV-TR reiterates in its 'Criterion A' for ADHD and its six criteria specific to hyperactivity:

> The essential feature of Attention-Deficit/Hyperactivity Disorder is a persistent pattern of inattention and/or hyperactivity-impulsivity that is more frequently displayed and more severe than is typically observed in individuals at a

> comparable level of development. (American Psychiatric Association, 2000, p. 85)

The following are the criteria listed for hyperactivity-impulsivity:

> a) often fidgets with hands or feet or squirms in seat
>
> b) often leaves seat in classroom or in other situations in which remaining seated is expected
>
> c) often runs about or climbs excessively in situations in which it is inappropriate
>
> d) often has difficulty playing or engaging in leisure activities quietly
>
> e) is often "on the go" or often acts as if "driven by a motor"
>
> f) often talks excessively
>
> (American Psychiatric Association, 2000, p. 92)

Danforth & Navarro (2001) confirm that everyday talk about ADHD appropriates descriptors from the DSM-IV (1994) while not limiting itself to DSM criteria. They provided "a catalogue of representative descriptors" uncovered in everyday speech about ADHD including:

> Very unorganized, not able to pay attention to more than one thing at a time, never on task, sharpens pencil constantly, cannot focus on anything, very distracted, repetitive behaviors not on purpose, has a slow recall of facts, makes spelling errors, has unstable pencil grip, hyperactivity, restless, defiant and destructive, can't sit still, distractible, loud noises from tapping table and verbalizations, seemed really anxious and fighting a great deal, very smart, very hyper, keep busy with activity, reports often not detailed or completed, alienates everyone, nicknamed HYPO, laughs a lot, lot of energy. (Danforth & Navarro, 2001, p. 176)

Definitions of Hyperactivity

The variety of descriptors of the behavior of hyperactive children has caused authorities to seek a more refined sense of the phenomenon under consideration. The aim has been improved treatment and diagnostic reliability, as well as determining whether a construct was a distinct disorder, or a symptom shared by

multiple disorders, or no disorder at all. The *Washington Post* article and subsequent Congressional hearings on stimulant medication in schools may have intensified the desire to mitigate the shortcomings of existing diagnostic tools and the lack of specificity about exactly what population was under consideration, but attempts to operationalize hyperactivity and inattention precede these events.

Hyperactivity, as a common complaint and observation of these children, received significant attention. Efforts to measure hyperactivity treated it as an excess of motor activity, to determine whether children identified as hyperactive exhibited a distinctive quantity of physical movement. The goal was to find some objective difference which would distinguish the individuals identified by teachers, parents, and physicians as overactive, as distracted, who demonstrated academic problems independently of intellectual ability, and were suspected of MBD. This measure or indicator would be independent of the variability of observer accounts of excessive activity. If reports were subjective or fallible, and not generalizable across situations, then a reliable measure would have lent consistency to the object under discussion. Substantial work of this kind, which addressed hyperactivity as a disorder unto itself rather than as a component of a pre-existing condition, occurred in the 1970s, with researchers relying on two explicit characteristics: that hyperactivity is excessive activity and that this excess is relative to that expressed by a normal population. In the production of operational definitions and measurement devices, this research avoided reducing hyperactivity to a quantity of physical movement alone, for such a definition would include people moving for the requirements of leisure or labour. Stella Chess and John Werry each provided early and paradigmatic definitions which I will now discuss in turn.

Stella Chess (1914–2007), a prominent American child psychiatrist, conducted work on children and temperament. She addressed the American Psychiatric Association at their 1959 annual meeting on the problem of hyperactive children, describing children she worked with. Echoing Still from 1902, subjects included a five-year old child who made messes and showed disregard for his clothes and property, and also “took his two-year-old sister for a long walk, crossing a

dangerous and forbidden thoroughfare in the process" (Chess, 1960, p. 2380). Chess said the behaviours of these children "might appear to be destructive, bizarre, lacking in judgment, or very impulsive" (p. 2380).

With hyperactivity being "one of the most common manifestations of disturbed child behavior" (Chess, 1960, p. 2379) Chess sought to distinguish types of hyperactivity in order to have more specific treatment plans. Children were hyperactive as a function of 'organic brain damage', but so were children due to mental retardation, psychic stress from the environment, and schizophrenia. Most notable was Chess' category of 'physiologic hyperactivity', which "comprises the children whose hyperkinetic functioning is not integrally associated with any other pathology" (p. 2379). Here we see the supposition that hyperactivity denoted a distinct pathology unto itself, though Chess acknowledges unknown etiology. Physiologic hyperactivity caused other problems, with teachers reporting misbehaviour, aggression, refusal to participate, and destruction of toys in the classroom. What was common to this and all variants of hyperactivity was "the hyperactive child is one who carries out activities at a higher rate of speed than the average child, or is constantly in motion, or both" (p. 2379).

By 1968, a more dedicated community of researchers on hyperactivity proper existed, including John Werry, a child and adolescent psychiatrist, who worked in Montreal in the 1970s, co-publishing with Virginia Douglas and Robert Sprague. Werry provided a definition of hyperactivity similar to Chess', "a *total daily motor activity* (or movement of the body or any portion of it) which is significantly greater than the norm" (J. S. Werry, 1968, p. 581).

> developmental hyperactivity will be defined as *a level of daily motor activity which is clearly greater (ideally by more than two standard deviations from the mean) than that occurring in children of similar sex, mental age, socioeconomic and cultural background and which is not accompanied by clear evidence of major central nervous system disorder or childhood psychosis and which has been present consistently since the earliest years of life*. (1968, p. 583)

We see in Chess' and Werry's definitions the two features which would circumscribe attempts to measure hyperactivity: There must be physical

movement and this movement must be excessive in reference to a group norm or average. The reference to a group norm of average is at least a tacit acknowledgement that the disorder is one of action in context, not simply of an objective property of an individual body.[2] Nonetheless, their operationalization of hyperactivity treated hyperactivity as an individual property.

Measurement of Hyperactivity

Given these rough conceptualizations of hyperactivity, the task remained to apply and test them. As activity is often a nonspecific sign, there already existed a number of apparatuses to measure movement, which can roughly be divided into two types: one is the division of space into a three-dimensional grid, armed with sensors at regular intervals which record a child's movement through space. The other approach includes devices worn by the child recording the child's movement.[3] The most notable of these methods in the study of hyperkinetic children was the 'actometer' (e.g. (e.g. Millichap & Boldrey, 1967; Millichap & Johnson, 1974; Schulman & Reisman, 1959). Initially a modified wristwatch, an actometer was a device which a subject could wear on the wrist or ankle and which would record movements of the bearer. By having children wear actometers, a researcher could measure whether abnormal levels of activity distinguished those diagnosed with hyperkinesis from a reference population. Reliability could be tested by standardizing actometer results with questionnaire-based evaluations of hyperactivity from physicians, parents, and teachers. Early actometers offered technical problems of validity and reliability (C. F. Johnson, 1971), but these problems were in theory technically surmountable.[4]

By the later 1970s, researchers had conducted sufficient trials using these methods and definitions that review was possible. Many were critical of the state of conceptualization of hyperactivity featured therein (Keogh, 1971; Poggio & Salkind, 1979; Salkind & Poggio, 1977; Sandoval, 1977; Shaffer, McNamara, & Pincus, 1974); replication and comparative work was difficult if not impossible.[5] Poggio & Salkind faulted the inconsistency in both the forms of measurement and entities under consideration. The motions recorded by stabilimetric cushions were

different than those of ankle-worn actometers, both of which were different from the motions recorded in measures of spatial locomotion. Compounding the problem, these measurement devices were trying to measure several hypothesized entities, such as "hyperkinetic [*sic*], short attention span, mood fluctuation, impulsivity, restlessness, distractibility, overactivity, hypermotility neurosis, minimal brain dysfunction, postencephaltic behavior disorder, and organic driveness" (Poggio & Salkind, 1979, p. 10). Even if this multiplicity of approaches could resolve itself, there was a larger problem than these inconsistencies. The major stumbling block was that actometers and measurements of movement neglected what to many was an intuitive and defining part of hyperactivity. Measures of hyperactivity were seen as missing an important component, the intentional and directed nature of this movement. In Werry's original definition from 1968, he had also written

> In addition to its purely quantitative dimension . . . motor behavior also has a qualitative one, or in short, *the situational appropriateness of a movement*, which is, from the clinical point of view, much more relevant. (J. S. Werry, 1968, p. 582)[6]

What mattered was not simply the amount of movement, but the perception on the part of those working with these children that the children's behavior did not meet expectations. Invoking principles of 'appropriateness' and 'purposive action', this literature lays clear that ADHD is at its core deficient conduct, and not a disruptive body which gets in the way of otherwise proper conduct:

> The important point is that it is not just the amount of motor activity, but also the character of the activity which defines hyperactivity.
>
> A critical characteristic of the motor activity of hyperactive children is that it is situationally or socially inappropriate (McConnell, Cromwell, Bialer, & Son, 1964; McFarland, Peacock, & Watson, 1966; Werry, 1968a, 1968b). (Keogh, 1971, p. 102)
>
> If repetitive unsocial, annoying, or inappropriate activities are hyperactivity, then the attachment of a device such as the actometer, no matter how sensitive and reliable, will not reveal the hyperkinetic child. (C. F. Johnson, 1971, p. 2110)

While there is some value in using objective measures such as the actometer . . . the best measure would appear to be measures of the goal-directedness of the child's activity. . . . It is the lack of goal-directedness and the distractibility from task behavior which is most characteristic of the impaired children rather than sheer amount of motor activity. (Ackerman, Peters, McGrew, & Dykman, 1974, p. 52)

However, it must be stressed that, although this exercise may be regarded as "hyperactive", it is acceptable, productive activity where the participants, child or adult, sustain attention to complete the task or game. This differs from the hyperkinetic child or adolescent, whose activity is not productive, who does not sustain attention, nor complete a game or task. (Renshaw, 1974, p. 14)

Zrull, Westman, Arthur and Rice (1966) cited research that indicates children who are judged to be "clinically hyperactive" do not display more gross activity per day than normal children, and what is judged as hyperactive may not be due to total activity but to a failure to inhibit motor activity when appropriate. (Salkind & Poggio, 1977, p. 250)

[in a summary of MBD traits:]

Undirected motor activity: Most pronounced in home and/or school; unable to focus attention for more than a few moments; constantly in motion. (Page, Bernstein, Janicki, & Michelli, 1974, p. 98)

[From another summary of traits of children with behavior disorders:]

Hyperactivity. Marked by purposelessness, not by absolute quantity of motion. (Huessy, Marshall, & Gendron, 1974, p. 80)

Hyperactivity is considered a deviation from the normal. Since the norm for activity has yet to be established (and I doubt that it can be, especially as purposeful, positive activity would have to be separated from purposeless, random activity), the definition of hyperactivity must depend on each individual's idea of what is normal. (Rogers, 1979, p. 20)

Regardless of the label applied to such children, the common denominator is the presence of behavior that is inappropriately and excessively active. (Sandoval, Lambert, & Yandell, 1979, p. 120)

Actometer data failed to account for this persistent observation about the activity of hyperactive children, which was the evaluation of that activity in terms of goal-directedness and appropriateness; its undesirability and disconnection from proper intentions. Hyperactivity is not the movement of one body part relative to another, or during part of the day compared to other parts of the day, nor of one body vis-à-vis peers. It is movement which does not satisfy the demands of a situation.

From the brief review above we see a series of qualifiers on hyperactivity:

- Problems of hyperactive children's behavior
    - 'Situational appropriateness'
    - 'situationally or socially inappropriate'
    - 'unsocial, annoying, or inappropriate activities'
    - 'inappropriately and excessively active'
    - 'purposeless, random activity'
    - 'annoy[ing to an] observer'
- What is deficient in hyperactive children
    - 'positive activity'
    - 'goal-directedness'
    - 'acceptable, productive activity'

The DSM-III in 1980, where Attention Deficit Disorder took over from the DSM-II's Hyperkinetic Reaction of Childhood, reflected this qualification of hyperactivity in terms of goal-directedness and intentionality:

> Often it is the quality of the motor behavior that distinguishes this disorder from ordinary overactivity in that hyperactivity tends to be haphazard, poorly organized, and not goal-oriented. (American Psychiatric Association, 1980, p. 41)
>
> Age-appropriate overactivity, as is seen in some particularly active children, does not have the haphazard and poorly organized quality characteristic of the behavior of children with Attention-deficit Hyperactivity Disorder. (American Psychiatric Association, 1980, p. 43)

The qualities peculiar to hyperactivity are its ‘haphazardness’, and that it is ‘poorly organized’ and ‘not goal-oriented’. While the DSM retains an idea of ‘ordinary overactivity’, the haphazard and not goal-oriented activity of the hyperactive child is distinct from the intermittent and local movement of spasms, tremors, and that resulting from CNS impairment, dyskinetic disorders, and dystonic disorders:

> The increased motor activity that may occur in Attention-Deficit/Hyperactivity Disorder must be distinguished from the repetitive motor behavior that characterizes Stereotypic Movement Disorder. In Stereotypic Movement Disorder, the motor behavior is generally focused and fixed (e.g., body rocking, self-biting), whereas the fidgetiness and restlessness in Attention-Deficit/Hyperactivity Disorder are more typically generalized. Furthermore, individuals with Stereotypic Movement Disorder are not generally overactive; aside from the stereotypy, they may be underactive. (American Psychiatric Association, 2000, p. 91)

The emphasis on activity as the defining characteristic of these disorders was tenable only by qualifying the relevant activity as excessive, inappropriate, not directed towards goals, or not purposive. The problem is no longer, if it ever was, overactivity, but activity which is not instrumental. It is this shift towards the evaluation of the activity as ‘appropriate’ or ‘goal-oriented’ which opened up a space for an antecedent principle governing these behaviours. Once the criterion is ‘goal-directed’ activity then activity itself becomes superfluous, moving the ADHD subject away from somatic territory into moral territory. It is possible to measure differences in activity levels among individuals and populations, but the problem at stake has never been hyperactive behavior which then is disruptive. It is not excess movement which turns into classroom disruption; it is the disruption which has defined the movement as excessive and therefore evidence of MBD, or ADHD. The object of concern is persistently and fundamentally behavior which is ‘bad’, or improper, or unsuccessful. If there is any consistent characteristic to the population under consideration, it is the failure to behave properly, and actometers could not in themselves account for this ‘situational appropriateness’. In practice

hyperactivity has simply not been an objective characteristic which then generates undesirable or disvalued consequences. What remains most consistent about this population is the purported dependent variable: disvalued behavior. This diminished the relevance of activity as bodily movement and displaced the focus onto the comportment of an individual as a moral entity, not as a somatic one. The distinguishing feature of this activity is its relation to norms about proper conduct; these are related to the expectations of others and are situation-specific.

The hope of actometer research was and continues to be that actometer measures could serve as an indicator of disorder, helping distinguish pathological populations from normal ones. Actometer data, whatever its utility, invariably has to become an indicator of pathology, pathology defined as impairment, not the mark of pathology itself which generates impairment. This offered two potential directions for analysis: The first is to understand how negative evaluations play a constitutive role in the understanding of ADHD as a disorder. If activity measures are unsatisfactory because they do not account for inappropriate activity, then any satisfactory measure would have to evaluate whether activity is appropriate or not. This places the impairment criterion foremost; what is common to ADHD are experiences of impairment, of not receiving appropriate evaluations from self and others. It is not clear whether current practice does this, what is clear is that the actometer saga did not resolve it. The alternatives are either variation and inconsistencies in observer reports of hyperactive behavior, or a turn to rating scales for behavior, to standardized evaluations of behavior, which could be refined and normalized across raters.

Werry and Chess, and the research which followed, defined activity as bodily movement in excess of that demonstrated by normal populations. It considered the harm to self or others which prompted clinical attention the consequence, not the mark, of excess activity. Evaluations of impairment or disruption could not also be the criteria for disorder, if one is searching for a physiological cause which is supposed to stand in for and precede the epiphenomenal and subjective reports of parents, teachers, physicians, and children. Facing the failure of actometers, instead of saying what was constant about these children was their bad behavior,

observers and researchers said there must be something constant to these children other than that bad behavior. The option pursued was describing the activity as ‘disapproved’ or ‘not-purposeful’ but these reiterate the problem of subjective evaluation, and there was no research project to measure purposiveness. The second direction is to presuppose that the negative evaluations stem from something objective, antecedent to reports of disruption, and lie somewhere inside the individual. In re-individualizing the disorder, research searched for cause or markers interior to the individual. If activity levels are an indicator, they open up a space behind such indicators for the objective cause of ADHD.

Further indicators of misbehaviour could suggest that misbehaviour’s terminal point is in the negative evaluation (as argued in Chapter 2), or it might look into the individual at the ever-receding causal somatic horizon to which indicators point.

This is not to say that science cannot or will not uncover physiological indicators for behavior which will be disapproved of, but the constant which determines whether those indicators indicate pathology is precisely that disapproval. It is the negative evaluation of that behavior which is intransigent, not the body.

Subjects Out of Control

Excess Energy

The operationalized definitions of hyperactivity above included two of three criteria for hyperactivity, excessive physical movement and that this excess is relative to a normal group. The third feature, which has sometimes been an operating assumption, is that this activity is uncontrolled. Setting aside the difficulties in measuring activity, the idea that children with ADHD were out of control, or had bodies which were out of control, persisted:

> It is important to recognize that many of these children are not able to make decisions for themselves. Their impulsive behavior is beyond their control. (B. F. Feingold, 1975, p. 73)

> At an age when most children—and especially the hyperactive—are blessed with

> large reserves of energy and small supplies of patience, they are given too few opportunities to discharge the former and too many demands to exercise the latter. (Stewart & Olds, 1973, p. 192)
>
> The fact that a child is able to sit still when interested; to concentrate when involved with a specific task; to complete it without being excessively distracted, is an important clue that the episodes of fidgeting and preoccupation do *not* indicate a true "Hyperkinetic child", who is driven by an internal dynamo of excessive stimulation from the brain to the muscles, precluding any voluntary control by the child. (Renshaw, 1974, p. 37)
>
> Students who are hyperactive have difficulty controlling themselves much like students who are impulsive. You cannot just tell hyperactive students to sit still and expect them to be able to do it. Their condition is physiological. For whatever reason, their bodies have a need to expend energy. They can't turn it on or off on cue.
>
> Think of hyperactivity as an itch. If you concentrate hard enough, you can force yourself not to scratch. However, while you are concentrating, it is difficult to attend to anything else, such as a teacher or parent. Moreover, much like scratching, hyperactive children will eventually have to expel their pent-up energy. The trick is to have them expel their energy in positive, productive ways. (Cimera, 2002, pp. 58–59)
>
> Whether it concerns controlling their body or their mind, the child with ADHD appears unable to control their motion as other children do. . . .
>
> In essence the process is about focusing the child and helping them to control their bodies. (O'Regan, 2005, p. 36)

Others have made mention of this lack of control exhibited by the children, sometimes reiterating this idea of a hydraulic model of energy which must be restrained or channelled into proper avenues, and which can overcome the child's ability. What is of interest is how this problem of the lack of control is connected to the other major feature of these disorders, inattentiveness. This somatic excessiveness or out of control state is applied not only to the body, but also to the mind, including the second aspect of these disorders, inattentiveness.

Managing Stimuli

Alfred E. Strauss and Laura E. Lehtinen's *Psychopathology and education of the brain-injured child* (1947), an early and extensive study of children with brain-injuries, was written for their study, and treatment in an educational context. In their discussion of 'driveness', they refer to Kurt Goldstein's 'catastrophic reaction', Kahn and Cohen's research on hyperactive children, but also Walter B. Cannon's work. Cannon, an American physiologist, was the originator of the term 'fight-or-flight response', in his work on the relation between emotions and physical reactions. For Cannon, driveness arises from the brain's subcortex releasing 'thalamic energies':

> "These powerful impulses originating in a region of the brain not associated with cognitive consciousness and arousing, therefore, in an obscure and unrelated manner the strong feelings of emotional excitement explain the sense of being seized, possessed, of being controlled by an outside force and made to act without weighing of the consequences." Everyone who has observed brain-injured children in their states of hyperactivity or driveness can readily accept the statement that their reactions are so extraordinarily intense and disinhibited that they are released without control. (Strauss & Lehtinen, 1947, pp. 85–86, citing Cannon, 1929)

In the 1940s, people believed that hyperactive children were overstimulated, and tried to make classrooms as minimally stimulating as possible, and the foremost person responsible was William Cruickshank, following the suggestions of Strauss and Lehtinen on the inability of the brain-damaged child to manage the perceptual system. Dyck (1977) cites Strauss and Lehtinen, and Cruickshank et al. (Cruickshank, Bentzen, Ratzeburg, & Tannhauser, 1961) on removing excess stimulation:

> The primary elements of the educational design included
>
> 1. reduced environmental stimuli
>
> 2. reduced space
>
> 3. a structured school program and life plan

> 4. an increase in the stimulus value of the teaching materials which are constructed to cope with the specific characteristics of the psychopathology under consideration
>
> To reduce unessential environmental stimuli a room was provided in which bulletin boards, pictures and other extraneous objects had been removed. The color of the walls, woodwork and furniture matched the floor color, and windows were covered or opaqued. The room sound was carefully controlled. A well-qualified teacher was employed; she dressed in plain clothes without jewelry or other ornamental objects that might gain undue attention from the children. Space was reduced by using cubicles or placing the child in a corner or behind cabinets. (Dyck, 1977, p. 120)

Fine (1977a) cites Cruickshank on two aspects of hyperactivity, 'sensory and motoric'. The sensory one is the one we know, that it is a problem of attention, persevering, etc. The second is "motor disinhibition" (M. J. Fine, 1977a, p. 13), which is

> . . . the inability of the child to refrain from reacting to a stimulus which produces a motor response. Anything which can be pulled, turned, pushed, twisted, bent, torn, wiggled, scratched, or otherwise manipulated motorically will be so handled. (Cruickshank, 1967, in M. J. Fine, 1977a, p. 13)

This helplessness before sight and sound is repeated elsewhere and throughout the literature:

> They are unable to contain their tendencies to be stimulated by every sight and sound in their stimulus field. (Renshaw, 1974, p. 84)
>
> These children have been described as "being at the mercy of their senses." (Nussbaum & Bigler, 1990, p. 18)
>
> The hyperactive child jumps all over the classroom not because that is what she wants to do, but rather because her ability to process stimuli is out of control. The excess activity is a compulsive reaction to senses she can neither turn off nor organize. When the child attains the ability to organize the input from the senses, the unorganized behavior will cease. (Debroitner & Hart, 1997, p. 164)
>
> ADHD is not a problem of short attention: it is a problem of control. The

> inability to control one's thoughts, actions, or movements disrupts attention. (S. W. Garber, Garber, & Spizman, 1997, p. 139)

George Lynn, a psychotherapist, offers similar advice both in favour an against stimulation, in his commentary on ADD problems as 'stimulus overload'. The child is "overwhelmed by impressions from what he sees, smells, hears, feels, or thinks" (Lynn, 2002, p. 194) but the child "can not sort out any one thing to focus on—he has too much of a good thing" and isn't "really taking things in" (p. 194). Other children get overwhelmed and withdraw, trying to maintain a sense of self, and therefore look for 'stimulus safety' and don't like interruption.

This problem, of stimuli overwhelming children, is a theory of sensory overload, a theory that these children's brains can't filter out or ignore distracting stimuli. Some connect this sensory overload to activity. Children with ADHD are unable to control their bodies; they are helpless in the face of stimuli which otherwise animate their bodies. Stimuli grab attention, eliciting hyperactivity. This impotence in the face of stimuli is the connection to inattention and stimulus modification in classrooms. The problem is one of distractibility or attention, and the solution is to remove distractions. The theory is that in the absence of distractions, the individual will pay attention to what is present. In many of these works space has to be transformed. Because attention is helpless before competing stimuli, many advocate modifying the environment, particularly the environment of the classroom, where children are expected to manage their attention. The goal is not to restrain the body physically but to provide the child with the means to conduct one's self in accordance with the rules of a situation. By relocating the site of intervention from measuring bodies to identifying brains, so too is perception not under control of the child—it can be captured and redirected by stimuli.

One strategy in which this continues is precisely in the use of study carrels, desks with walls on three of the sides in order to eliminate visual distraction. Advocacy for carrels persists (Cimera, 2002; Cooper & O'Regan, 2001; Mathes & Bender, 1997; McConnell, Ryser, & Higgins, 2005; Moss & Dunlap, 1990) due to the belief that stimulus management will attain desired classroom conduct.[7]

Similarly, there is also the suggestion to remove pictures from the walls (Bakwin, 1967; Mathes & Bender, 1997; McConnell et al., 2005; Tilson & Bender, 1997), to keep children away from noise and distractions such as air conditioners, pencil sharpeners, and 'high-traffic' areas, as well as windows and doors (ERIC Clearinghouse on Disabilities and Gifted Education, 1998; O'Regan, 2005; Silver, 2004; Tilson & Bender, 1997). Classroom seating is another method, with children to sit up front, close to the teacher, with desks widely-spaced (ERIC Clearinghouse on Disabilities and Gifted Education, 1998; Silver, 2004).

While "the commonsense notion that novel stimuli or excessive noise distract children with ADHD seems to be true", when it comes to the total removal of all stimuli through methods such as carrels, they say "these procedures have failed to be supported by empirical research" (Wodrich, 1994, p. 210), a wariness which continues:

> Unfortunately, the source of the greatest distraction for many ADHD students emanates from the mind and body, so while these efforts may block external visual distractors, they cannot prevent ADHD students from daydreaming, doodling, and doing whatever else takes them off-task. (S. W. Garber et al., 1997, p. 59)

Managing the Body

While current treatment pays less attention to managing excess movement and reducing distractions in classrooms, in favour of organization, behavioural modification, and pharmacological treatment, one of the lasting interventions for addressing hyperactivity in alternative works is through labour on the body. Such interventions are relatively marginal, both in terms of their presence in the literature and their status as scientifically-defensible treatment, but they show a returning preoccupation with disorders of inattention and hyperactivity as problems of bodies. Even when such disorders are theorized to be neurologically based, the manipulation of problematic bodies is taken to be a means to address the plasticity of the brain and alleviate the out-of-control subject.

Such interventions have early connections to the work of Newell C. Kephart, an educational psychologist and affiliate of Strauss and Lehtinen, who worked

with children with learning disabilities, as well as to the work of Carl Delacato and Glenn Doman (1974), who argued that physical therapy and sensory stimulation, if conducted properly, could be neurologically therapeutic for children exhibiting a range of difficulties they linked to development, including autism, learning disorders, and inattentiveness and hyperactivity. Doman and Delacato founded The Institutes for the Achievement of Human Potential, a private organization which is still active today with the same principles.

> Kephart (1971) and Delacatto [*sic*] (1966) suggested that perceptual-intellectual dysfunction arose when early motor-learning experiences were abnormal or inadequate. In theories that paralleled, but apparently did not stem from Piaget, Kephart and Delacatto believed that normal intellectual development could not proceed until the sensory-motor deficits had been remediated. Accordingly, they prescribed elaborate programs of physical exercises (walking balance beams, "angels-in-the-snow" calisthenics, forced changes in sleep positions, forced crawling as a means of locomotion). Kephart's rationale was that children needed to learn their body's orientation in space before they could perceive the spatial organization of letters and numbers. Delacatto, on the other hand, put forward an even more speculative theory involving highly controversial treatment methods that he felt would "reorganize" neural structures. (Lahey, Hobbs, Kupfer, & Delamater, 1979, pp. 4–5)

The American Academy of Pediatrics has consistently and explicitly rejected the appropriateness and success of such treatment (Ziring et al., 1999), but the idea that physical modification might result in modification of behavior continues in isolated areas in the literature under consideration. For example, it takes interesting shape in O'Dell & Cook's heterodox approach (O'Dell & Cook, 1997). They say the problem of ADHD is the 'Symmetric Tonic Neck Reflex' (STNR), where "improper or insufficient crawling in infancy leads to behavioural and academic problems in later life" (1997, p. xiii). They offer postural clues by which an observer might ascertain a child's problems, e.g. 'The Slouchers; the Chair Tippers; The Foot Lockers', and they offer an extended program of physical therapy meant to re-establish this reflex.

Debroitner and Hart's "psychostructural dynamics" (1997, p. 4) also connect

expressions of physicality to patterns of behavior, arguing that physicality mirrors an individual's interior disposition. Those who hold themselves securely (with their head high, chest out, feet grounded etc.) are secure in their sense of self. In contrast, those who have a non-hyperactive attention disorder may slouch, or may be caved in, evidence that they lack a strong sense of self. The hyperactive child, in turn, has no secure sense of self and as a result runs wild externally. "Though people in the grip of the disorder may valiantly 'try' to control themselves, their efforts are doomed because *there is no firmly rooted self to control* [italics in original]" (p. 57). Alongside posture, Debroitner and Hart also argue that one's eyes reflect one's internal relation to self. Those who are 'emotionally stable and self-accepting' have calm eyes which take everything in, which scan the world around them curiously. Those who are hyperactive, however, have an 'unstable head' and the eyes 'dart and move erratically'. Those who demonstrate inattentiveness have a frozen gaze: "anxiety and internal disorganization are mirrored in the way they use their eyes" (p. 127).

This interchangeability between physical movement and an internal sense of agency is repeated by Thomas Armstrong (1997), who recounts the story of a boy he met who could not sit still until the boy tried imagining spelling words in his head. "Billy was able to transform his external physical hyperactivity into internal mental motion. And by internalizing his outer activity level, he was able to gain some degree of control over it" (1997, p. 104).

Physical behaviours are something to be manipulated directly in *Learning a living*, a book for people with ADHD, dyslexia, and learning disabilities (D. S. Brown, 2000). In a section on "The Physical Component of LD/ADD/Dyslexia" it advises the reader to "Consciously try to change how you move." She gives the example, that if you stare, you could "Learn to move your eyes. . . . Look at each corner of a room" (2000, p. 89).

> It takes a long period of day-to-day remembering to move differently before you overcome the natural tendency of your body. There is no denying that retraining your body is very challenging. However, if you can learn to move more naturally, other people will probably be far more comfortable with you. (D. S. Brown,

2000, p. 90)

Brown argues that hyperactivity is an asset, as it provides lots of energy. People with ADHD have extra energy that they can channel into being more productive. If this bothers others, one is to exercise, relax, meditate, and "fidget in ways nobody can see, such as moving your feet under the desk" (D. S. Brown, 2000, p. 91).

In *Out of the fog*, a book for adults to cope with ADHD, Murphy and Levert (1995) advocate a similar kind of bodywork: they include a section on 'developing your expressive skills' with sections on speaking, and how to work on tempo, intonation, and fluency by which they mean things like not stumbling over your words, then a section on gesturing with eye contact, facial expressions, body language, then on managing one's navigation of personal space, eye contact, and reading facial and bodily expressions.

These prescriptions to manage one's body though such direct, self-conscious measures are uncommon in the literature, but they demonstrate an alternative interpretation of the problems of excessive activity. If disruptive behavior is no longer a problem in itself, but reflects an antecedent, physiological or neurological aberration, the solution is to manipulate the cause in order to mitigate the originating effect. By exercising control over one's body, one's body is controlled but so too, purportedly, is one's self.

The Merging of Bodies and Selves Out of Control

The impairment and disruption which characterize disorders of inattention and hyperactivity are not contingent consequences of an objective state. They are indissoluble features, grounded in context and expectation, which then give rise to the search for a constant physiological cause.

The idea of hyperactivity being a problem of bodies demonstrating an excess of motion was partially replaced by an idea of bodies and perception being out-of-control. By invoking the notion of control, what is implicit is a subject or agent behind the moving body who fails to exercise control over the body in his or her possession. The idea of control supposes some agent or function which has

failed to operate as it ought, and that this agent or function must be re-established, an argument I develop further in the next chapter. What is notable is how this idea of disorders of inattention and hyperactivity being a dysfunction not of bodies or brains but of perception and behavior received support in the late 1970s, particularly in Virginia Douglas' work on inhibitory control. Facing stimuli and incentives of all kinds, not just present visual or auditory ones, children with disorders of inattention and hyperactivity become selves with deficient control.

The referent is not longer an absolute one of motion or attention, but a variable one dependent on the demands of circumstances. These features show ADHD to consist of an ethical dysfunction, a difficulty in acting as one ought, whatever the grounding in physiology. This does not contradict 'dominant discourses' about ADHD, which assert that the person diagnosed with a disorder has difficulty moving through the world. It does not contradict that they, and those responsible for care, seek to ameliorate this, to make those experiencing these forms of impairment more skilled in navigating the world of expectations for behaviours. As I have stated elsewhere, what it does do is confirm the thesis that medicine is an institution of socialization, that disorders are not natural kinds waiting to be discovered but are historically-specific manipulations of the body in the service of managing difference. What is disvalued in the ADHD case is specifically disruptive or transgressive behavior, not the harmful consequences of moving too much. In chapter 5 I discuss how interventions are supposed to address transgressive behavior, and show that interventions for these disorders, whether at the level of the body or behavior, seek to make ethical subjects.

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[1] As also discussed in the preceding chapter, this disvaluation and the physiological or behavioural component are not sufficient for an ascription of disorder, but they are nonetheless necessary.

[2] Some may argue that the cross-contextual criterion for ADHD, that symptoms persist across circumstances such as home and school, demonstrates that ADHD activity is a problem independent of circumstance. However, I addressed this in Chapter 3, namely, that there are circumstances in which particular physiological states are not impairing, and are thus always of context, however common.

[3] See:

> Investigators of hyperactive children have commonly used three devices: the actometer, the activity recorder, and the stabilimetric cushion. These are all mechanical devices for recording movement. They are, respectively, a modified self-winding wristwatch (actometer), a two-dimensional pedometer-type device attached to the child's shirt back (the activity recorder), and a cushion embedded with sensitive microswitches to detect any squirming while seated. (Sandoval, 1977, pp. 305–306)

Sandoval (1977) enumerates the variety of methods for measuring movement:

> . . . dividing a playroom into equal areas, then counting the number of times a child moved across the imaginary grid (Rapoport et al., 1971, 1974; Routh et al., 1974). (p. 304)

> . . . fitting a room with photoelectric cells (Ellis & Pryer, 1959), or ultrasonic sensors (McFarland, Peacock, & Watson, 1966; Saxon & Starnes, Note 2) by placing a child's desk on a carefully suspended platform (Foshee, 1958) or by placing a radio transmitter in a helmet worn by the child (Davis, Sprague, & Werry, 1969; Herron & Ramsden, 1967). (p. 305)

Poggio & Salkind (1979) in turn cite Cromwell, Baumeister and Hawkins (1963) on "four methods of measuring hyperactivity level (direct visual observation, free space traversal, fidgeometric, and kinometric)" (Poggio & Salkind, 1979, p. 11) which are observer ratings, movement through a space, 'fidgeting' measure as with the stabilimetric cushion, and devices such as actometers, respectively.

[4] Johnson's study was about the ability of these devices to measure movement and found them lacking; that depending on the orientation of the device to the direction of movement, readings were variable, and might not register movement whatsoever. See also:

> Since reliable and valid measurements of activity have proven to be a difficult task, no exact definition of the hyperactive child in terms of a measured quantity of movement or activity has yet been made. (Simpson, 1977, p. 269)

[5] See:

> The implications we draw from the apparent inconsistency of activity measures are that (1) environmental contingencies are important determinants of 'activity behaviour'; (2) a global concept of 'overactivity' is of dubious validity; (3) studies of the 'hyperactive child' should include some form of objective observation technique in the original selection of subjects rather than selection based solely on subjective reports or even inventory ratings. (Shaffer et al., 1974, p. 14)

In the context of Minimal Brain Dysfunction Paul Wender (1979) said that the nomenclature of 'hyperactive' and 'hyperkinetic' were problematic, misleading, and would remain so, because many of those with MBD might have normal or sub-normal levels of motor activity.

[6] Chess had also written:

> the factors which cause the child to be brought in for evaluation may vary from one socioeconomic group to another and may also involve variations in cultural concepts of normal activity. (Chess, 1960, p. 2379)

[7] Mathes & Bender (1997) say that carrels "may prevent students from looking around and being distracted by others". They should also be available for any student to use, and that "students without disabilities should also use them to avoid any possibility of stigma being associated with the carrels" (p. 159). Similarly, Cooper & O'Regan (2001) say that carrels are not specific to students diagnosed with a particular disorder; they can potentially help any student: "*All* children, and particularly those with AD/HD, benefit from clear, predictable, uncomplicated routine and structure" (p. 48). Moss and Dunlap (1990) share the concern with stigmatization, advising teachers about "providing structure and limiting distractions" (p. 155); that they may provide a carrel if necessary, or send the child to another room to work if the child is having difficulty, and seat the child close to the teacher; but to be careful for isolation is detrimental to the child's self-concept. Cimera (2002) says that students can put pictures inside their carrel if they wish.

Chapter 5: Establishing Self-Control, Making Moral Agents

In this chapter I make some critical remarks, via Foucault, on what has been written about disorders of inattention and hyperactivity. I argue that interventions for these disorders present a "political economy of illegality" (Foucault, 2009, p. 24) in which the goal is not disciplining deviant individuals so that they conform to norms, but producing subjects who purportedly have the ability to conform to norms, so that they may legitimately be punished or rewarded for their behaviours. I advance the argument that if ADHD is a disorder of self-control then interventions attempt to mitigate that threat by bringing about an ethical subject. Such an ethical subject is a subject who can act in accordance with a set of principles or, barring successful performance, be evaluated for not acting in accordance with those principles. Said individual is therefore *subject* to those principles, in the sense of being the individual those principles demarcate, and in the sense of bearing the consequences of those principles, being held responsible. The goal of such interventions, as much as it is to make a world in which conduct is not disruptive to self and others, is also one in which sanctions for misbehavior remain justifiable.

Why Foucault?

One of Foucault's most-cited theoretical concepts is that of disciplinary power (Foucault, 1979), a form of power exercised not simply over excesses, the most deviant behaviours, or intermittent threats to authority. According to Foucault, disciplinary power shapes the population it controls at intimate levels. The political task is not only the management of specific individuals but the production and management of populations. His model for this was Jeremy Bentham's panopticon, a circular prison with cells along the perimeter, all which faced a lit tower in the center. Because of the light, inmates could not tell who was observing them or when and thus would theoretically behave as though they were always surveilled. In this way, the inmates become "the principle of [their] own subjection" (1979, p. 203). This form of power is *panoptic* in nature; it is a form of power that does not simply oppose individuals, but rather structures their

circumstances so that those individuals reproduce and sustain power relations in their own actions. Foucault details modern forms of power which include the panopticon; they shape individuals by dividing up space, routinizing activity, structuring time, training bodies at intimate levels, in order to produce subjects, to produce individuals in accordance with particular demands. By isolating bodies from one another, prescribing and reinforcing correct movements, and organizing those bodies in specific arrangements of space and time, subjects can be 'made', whether those subjects are soldiers, criminals, or the mad. These modern forms of power have correlate architectures of power, such as barracks, prisons, and asylums. One can build hospitals, schools, and gymnasiums according to this panoptic logic.

Foucault's analysis of disciplinary power was not solely preoccupied with spatial boundaries of action, but also the structuring of action within those spaces, and the arrangement of bodies both to themselves and in relationship to other bodies. Thus, while there is not architecture specific to the ADHD subject, in the sense of one particular building which attempts to produce a universal ADHD subject, schools do have the potential to restructure their environment in the name of ADHD, as shown in Chapter 4. The recommendation to use dividers between children, to sit ADHD-diagnosed students with or apart from other students, to remove distractions from their environment, to provide stimulation in the environment, to offer them a quiet space, to enforce a regular schedule to stay on top of work, to prescribe elaborate mnemonics involving colour coding and specific note-taking skills, or to schedule breaks; all of these are attempts to structure the actions of others, as intended. The child, and increasingly the adult, with ADHD is to keep a schedule, to make lists and leave reminders, to calculate rewards and dispense them at appropriate times, to use a watch or a timer to 'stay on task'. And then there are more ordinary prescriptions—sleep right, eat right, and exercise. How does an author's understanding of ADHD make regular exercise a prescription specific to ADHD, rather than a general exhortation common to everyday experience?

While it is tempting to elaborate on how interventions for disorders of

inattention and hyperactivity constitute a disciplinary form of power, I use Foucault to suspend judgment about whether interventions constitute unjust control, avoiding the dichotomy of whether they repair an objective pathology or interfere with an authentic self. I believe there is more to be said about the relationship between techniques of demarcating populations on the grounds of behavior, on the relations between people which constitute a field of action for those diagnosed, and the positive effects of said field. This frees a space for the description of power relations, the complicated network of statements which constitute "the field of possibilities in which the behavior of active subjects is able to inscribe itself" (Foucault, 1994a, p. 138), or the 'rules of the game at play', so to speak.

In his later and final works, and in interviews and lectures he gave near the end of his life, Foucault focused closely on antiquity, examining practices of subjectivity as present in the Hellenic period, specifically the Socratic-Platonic era and the first two centuries A.D. In Foucault's words, he had taken an interest in techniques of self-domination, saying

> I am more and more interested in the interaction between oneself and others, and in the technologies of individual domination, in the mode of action that an individual exercises upon himself by means of the technologies of the self. (Foucault, 1994b, p. 147)

Taking up Foucault to address issues in health and medicine, Lupton (2000) says, "'technologies of the self' involve the voluntary internalization of norms governing appropriate behaviour in the interests of achieving the best possible self, including the quest for self-knowledge, self-mastery, and self-care" (p. 57). Lupton goes on to argue that care for self is a component of contemporary health in the West. Historically its roots are in the development of the 'civilized body' in modern Europe, the protection and isolation of the body from other individuals, and from the body's own excesses. Are practices for ADHD treatment practices of self-mastery? Are they a form of self-domination that acquiesces to a status quo or that stands in opposition to the status quo? How would we know if treatments for ADHD constitute 'care for self' and why would such a conclusion be desirable? If

we find ADHD mostly in children, then how to assess the relevance of Foucault's discussion of care for self? Foucault was certainly not talking about children in his analyses of antiquity. It was an erudite and elite class which reserved care for self for itself. Given the strict regimens and particular techniques of self-reflexivity involved, it is unclear whether these are translatable into practices of childhood. This is not to dismiss the possibility too quickly, however. On the surface, children undergo intense processes of self-transformation and production, as I have mentioned, in socialization in general.

While I have discussed Foucault's methodological reflections in Chapter 2, his work on madness, medicine, and psychiatry, punishment and incarceration, and practices of sexuality are precisely analyses of this nexus between the production of knowledge about human beings and related systems of obligation and affordances:

> to study the interplay between a "code" that governs ways of doing things . . . and a production of true discourses that served to found, justify, and provide reasons and principles for these ways of doing things. To put the matter clearly: my problem is to see how men govern . . . by the production of truth. (Foucault, 1994c, p. 252)

> To analyze "regimes of practices" means to analyze programs of conduct that have both prescriptive effects regarding what is to be done (effects of "jurisdiction") and codifying effects regarding what is to be known (effects of "veridiction"). (Foucault, 1994c, p. 248)

This interplay between a system of legitimation and practices of truth which differentiate disorder from non-disorder is present in the literature under consideration. In Chapter 3 I indicated, following Ereshefsky, that debates over the status of disorder conflated two sorts of claims: descriptive—those about the measurement of objects—and normative—those, facing what was the case, stated what ought to be the case. The implication was those interested in managing discussions about classifying and demarcating disorder would benefit from keeping this distinction in mind. In this chapter I discuss how the intelligibility of the field of statements I have encountered relies on an avoidance of this

distinction. The field of statements about these disorders hangs together because of the often complex relationship between descriptive claims about what people are and programmes about what people ought to do. If the debate over ADHD's legitimacy has wrongly rested at the level of whether ADHD is 'real' or not, it is because ADHD is intelligible only through statements whose fundamental relations are tightly-linked and consequently opaque. The task is to patiently open up and schematize these relations which otherwise tend to collapse into each other.

Outside the Law?

As discussed in the preceding chapter, the shift in understandings of disorders of inattention and hyperactivity which become most clear by 1980 no longer reduced such behaviours to excessive movement:

> The behaviour problem is almost never characterized simply by excessive motor behaviour expressed in socially inappropriate ways. Rather, these children, who are supposedly plagued only by high rates of activity, exhibit a range of disordered behaviour. (Mira & Reece, 1977, p. 50)

Advances in research argued that these behaviours were the result of deficient behavioural inhibition. Unable to inhibit activity at appropriate times or devote attention to tasks which require sustained focus as well as peers, deficient behavioural inhibition frequently manifests itself as a deficiency in behaving according to social norms. Ostensibly relevant stimuli do not bear on one's actions with sufficient force. Thus, for example, the threat of punishment for unruly behavior from one's teacher would be too little or too late to counteract the enjoyment of playing during a quiet time, for example. Or the import of speed limits or the irrelevancy of distractions would be insufficient to register with the conduct of a driver diagnosed with such a disorder. The inability to pay attention as expected, to exercise the work ethic of studying as expected, or to pick up on social cues, results in problems with academic performance, concomitant problems of self-esteem and interactions with peers and others which cause stress to those individuals. It is important to note that the common symptoms reported

by children diagnosed with such disorders are not simply misbehaviour. Disordered, norm-breaking behavior is much broader than that of the mischievous or oppositional child. The difficulty in participating in the same world as others is distressing to those diagnosed, not just to those responsible for them.

There is a crucial point here, however: if the impairment is not defined as a specific behavior, such a repetitive movement; if it is not towards a particular object, such as a fear of heights or a particular addictive substance; then problems can exist at a broader level and in potentially any circumstance. Problems and their successful counterparts can be as general as "behaving carefully, cooperating with adults and peers, communicating effectively, and learning to read and write" (T. E. Brown, 2005, p. 113); managing a home budget, managing relationships including with spouses, and being a better parent; school transitions, navigation of peer and sexual relationships, leaving home, managing homework, getting a paying job and driving (T. E. Brown, 2005); dealing with drinking and driving, unprotected sex, graffiti on school walls, and pregnancy (Nadeau, 1998); finding employment, being organized, or developing social skills (Nadeau, 1997). Signs and indicators of ADHD might include wearing out bikes or not sitting through a haircut (Satterfield, Atoian, Brashears, Burleigh, & Dawson, 1974). Some write that ADHD is so pervasive as to apply to everything:

> . . . attention deficit affects not only school, but all areas of an individual's life. (Moss & Dunlap, 1990, p. 105)
>
> ADHD affects all areas of your life, not just school. (A. L. Robin, 1998, p. 211)
>
> *ADHD is not just a school disability; it is a life disability*. (Silver, 1999, p. 168)
>
> ADD . . . affects all aspects of life. (Larry Silver, in the preface to Quinn, 2001, p. 6)
>
> AD/HD affects all aspects of life: social, home, athletics, and employment. (Staba & Taymans, 2000, p. 36)
>
> AD/HD affects your life, all day, every day. (Quinn & Stern, 2001, p. 49)

The conceptualization of these disorders as problems of inhibitory control may very well be useful; one can imagine that an impaired ability "to organize

behavior across time and direct it toward the future to maximize the long-term outcomes for the individual" (Barkley, 1997, p. 348) would make the organization and direction of one's life difficult. However, the expanded recognition of how such a characteristic can impair people's lives means that the disorder is not isolatable to a quantity of behavior, for example. The impairment of these disorders is not failure to meet specific expectations or to have a specific ability; it is an impaired ability to participate as others do in systems of reward, incentive, influence, coercion, and so forth. This is reflected in the conceptual shift from the problem as one of control of the body to control of the self.

This expanded understanding of disorders of inattention and hyperactivity has two principal components. The first is the recognition, as I have argued, that what is at stake is not just a body but a subject's relationship to his or her behavior. The second is that the expanded understanding of these disorders broadens the sites, actions, and agents involved. Both of these components result in a complex field of obligations, justifications, and possible actions, and this field is particularly generative. As I have shown, it generates the multiple statements made around these disorders, the variety of prescriptions offered, and the competition over what sort of object these disorders are. It may be better to interpret this field not as an attempt to suppress activity but to manage a field whose generative power exceeds the grasp of the actors within it. The resultant task is therefore not the suppression of individuals but the management of a new series of rules.

In making this argument I will draw on Foucault's work on the production of and management of abnormal individuals and abnormality within populations (Foucault, 1979, 2003, 2009). While it may be too straightforward to equate the management of children with the management of prison populations, I believe what the case in question shares with Foucault's analysis of incarceration is the emphasis on management, rather than the extinction, of transgressive behavior. Just as modern forms of power, disciplinary power, produce particular subjects in penal circumstances, so too do they produce particular subjects in the field of power relations around inattention and hyperactivity.

Unlike those who misbehave intentionally, the behavior of these children is understood as 'out-of-control'. Exceeding the ability of the child to control their impulses, their misbehaviour is not attributable to bad intentions:

> The first step is an explanation to the parents of the nature of the deviant behavior. If possible both parents should be present. They should be told that the excessive activity is an inborn characteristic and that it is not wilful misbehavior. Asking the parents at this point to enumerate the youngster's favorable qualities serves to emphasize to them that, despite his frequently exasperating behavior, their child is basically a good youngster. (Bakwin, 1967, p. 28)

> Do students with attention deficits get up each morning and maliciously say, "Today my goal is to ruin Mrs. Smith's day"? Of course not, but after a tough day at school, teachers may sometimes wonder. (Zeigler Dendy, 2000, p. 7)

> Building empathy in teachers and parents will increase their ability to be effective and view the student's difficulty in the context of a disorder rather than purposeful misbehaviour or a lack of effort. Students need to be helped to develop a positive attitude about learning to deal with AD/HD rather than to lean on the label as an excuse for lack of effort and learned helplessness. (British Columbia, Ministry of Education, Skills and Training, 1998, p. 19)

The prevalent concern is that a diagnosis of ADHD is a license to excuse normal obligations and duties. 'If someone cannot control their impulses, how can we hold them responsible for disrupting a classroom or not doing homework?' ADHD proposes the threat of the individual who we cannot legitimately hold accountable or punishable, of a subject who is in fact not subject to traditional mechanisms of social control, but neither can be counted on to exercise self-control. This elicits the comment by Diller (1998) that the disorder "highlights the most basic psychological conundrum of nature versus nurture, and it raises fundamental philosophical questions about the nature of free will and responsibility" (p. 17).

Foucault asks whether incarceration is a necessary and integral condition of the social order of which it is a part. Against a logic which sees crime as social excess

which must be pruned or exiled, Foucault suggests that incarceration and the management of law-breaking, play a constitutive role in the reproduction of social relations:

> Does the penal machinery have as its aim not the elimination of illegalities but, on the contrary, the aim of control over them, of maintaining them in a state of equilibrium that would be economically useful and politically advantageous? In short, should penal politics not be understood as a means for managing illegalities? In other words, is penality really about a war waged against breaches of the law or simply a particular planned economy of crime?
>
> I think one can find in the very functioning of prisons the evidence for this idea that the penal system, in spite of the orders it assigns to itself, is not really an apparatus for suppressing crime but is in fact a mechanism for the management, the differential intensification, the dispersal of illegalisms—a mechanism for the control and distribution of different illegalities. (Foucault, 2009, p. 19)

While Foucault's attention in this case was prisons and the law, I maintain that the discursive field of statements on ADHD is an analogous mechanism for the management, not suppression, of rule-breaking. The field of statements about disorders of inattention and hyperactivity presents its task as the management of those who in a general but definite sense do not follow the rules. The social rules, or norms, which children are to follow stand in place of the law, and the right to judge and sanction belongs to the various authorities in a child's life, including parents, physicians, and teachers.

The goal is not the establishment of a perfectly-ordered world without transgression but a field in which transgressions can be managed. If the ADHD subject stands outside of normal incentives to behave, and punishment cannot be justified for infractions, then the goal of treatment is to bring such a subject back into such an order, to bestow on them the right to be held accountable, praiseworthy, or punishable. It is not to have children who do not misbehave, but to be able to manage misbehaviour when it occurs in its varied forms. Just as the measures of hyperactivity aspired not to measure bodily movement but social disruption, the goal of treating those diagnosed hyperactive is not eliminating

excess movement but restoring social order. Social order is an order due to its capacity to include punishment for infractions.

Therefore, when I say that the goal of treatment for these disorders is the restoration of social order, I do not mean social stasis, a world without disruption. Nor do I have in mind some utopian vision where are all happily following norms without coercion. There have always been and will continue to be children, not diagnosed as pathological, who do not yet behave in accordance with expectations. Such children fit into a social order. They can already be accommodated in the classroom through the various sanctions available to parents and teachers. In contrast, the threat of disorders of inattention and hyperactivity is that they break the meta-rules which structure the right and the means for managing the behavior of another. They draw the authority's right to punish into question, and they draw the authority's means for eliciting proper behavior into question. Treatment for those with this disorder faces a peculiar problem: it is not that those with this disorder present a specific behavior which can be managed, but that they disrupt the very concept and possibility of management. What interventions try to restore is not an immobile body or something such as reduced interruption or less driveness, they try to restore someone who can be managed in the first place.

The Means to Alter Behavior

The emphasis on inappropriate behavior suggests that children with this disorder do not follow the rules, and this is what one can find in the literature. However, it says the dysfunction at the heart of these disorders is a dysfunction of the ability to follow the rules. This dysfunction comes not from lack of propositional knowledge of the rule. It is a lack of procedural knowledge for following the rule:

> [Anti-Social Personality Disorder] is distinguished by such behaviors as illegal acts, fighting, lying, and child neglect, and the person lacks remorse for having hurt others. The ADHD patient, in contrast, has no desire to violate societal norms but has difficulty in conforming to them. (P. H. Wender, 1995, p. 137)

> Impulsivity is found to impair the young adult's ability to make decisions or to stick to a course of action. The adolescent has problems following rules, delaying gratification, and working for larger rewards. He or she may find it difficult to inhibit behaviors as the situation demands or to keep from acting out. (Quinn, 1997, p. 98)
>
> Parents frequently report that the child with ADHD appears to want to comply with their requests but seems unable to do so. (Knight, 1997, p. 46)
>
> Those with ADHD do not misbehave on purpose. In fact, they can even tell you what type of behavior is appropriate in certain situations. But actually carrying out that proper behavior is the challenge. (Trueit, 2004, p. 23)
>
> Regardless of their specific problems, students with attention or learning difficulties want to succeed in their courses and have positive interactions with their peers and teachers. Even when they try to pay attention, control their behavior, or complete their assignments, they do not know how to achieve the results they want. Often they feel over-whelmed: They don't know where to start or what to do, and they don't understand what has gone wrong. (G. P. Markel & Greenbaum, 1996, p. 136)
>
> Perhaps most perceptive of Dr. Blau's observations was that these children knew what to do, understood right from wrong, but impulsively "seemed unable to control" their behavior. (Goldstein, 2010, p. 216)

This takes its major formulation as follows:

> ADHD is not a disorder of knowing what to do, but of doing what one knows. It produces a disorder of applied intelligence by partially dissociating the crystallized intelligence of prior knowledge, declarative or procedural, from its application in the day-to-day stream of adaptive functioning. ADHD, then, is a disorder of performance more than a disorder of skill; a disability in the "when" and "where" and less in the "how" or "what" of behavior. *Those with ADHD often know what they should do or should have done before, but this provides little consolation to them, little influence over their behavior, and often much irritation to others* [italics added]. (Barkley, 1997, p. 314)
>
> Inadequate development of adaptive behavior can significantly affect an individual's ability to apply knowledge to the activities of daily living. Examples

> range from a student who carefully completes a test, but forgets to write his or her name on it, to an adult who frequently misplaces car keys and other items that are used every day. Sam Goldstein (1990) aptly described such situations, saying: "It's not a problem of not knowing what to do—it's a problem of not doing what they know." (Richard, 2000, p. 173)

What is it to know what one should do or have done, to not be able to connect this to behavior, and to be inconsolable as a result? To know principles of conduct but to lack the capacity to realize such principles may strike one as odd, in the manner of knowing how to be polite but be regretfully unable to be polite. How is this possible? In this distinction between access to propositional knowledge and procedural knowledge, those exhibiting this behavior sit squarely on the former side. The compelling explanation is the inhibitory model of ADHD, an explanation which suggests that the means to alter behavior, traditional incentives and disincentives, fail to exercise force on the subject in question.

While such an explanation has explanatory power and is testable, it also opens up the realm of possible impairment. Varied isolated individual transgressions or difficulties can be read as the consequence of the disorder. What unifies such impairment is seeing it as evidence of an underlying inability to modulate behavior in concert with consequences. If ADHD is fundamentally a problem with connecting present actions with their consequences, then the potential manifestations are limitless. New methods have to be found, and these methods are not going to be concerned just with proper conduct, but with making conduct moral. Just what sorts of methods are these?

Integration into the Political Economy of Rule-Breaking

Behavior management is one of the most prescribed types of intervention for disorders of hyperactivity and inattention. With general roots in B.F. Skinner's behaviourism, behavior management seeks to modify behavior through reinforcement. If ADHD is a problem of connecting consequences to action, then behavior management seeks to intensify consequences and bring them temporally closer to the target behaviours. For example, if the difficulty is in studying for a test, as the test is too far away to bear on the child's behavior, studying itself can

be reinforced through immediate reinforcement, such as praise, free time, time at hobbies, small material rewards, and so on.

> So if you really want to change your child's behavior, you ignore his "bad" behavior (unless he's injuring another child or destroying property) and reward his good behavior. Miracles aren't accomplished overnight, but by following the principles briefly outlined here, you'll help your child develop appropriate or acceptable behavior.
>
> Then if he behaves better, he'll receive more compliments and his self-esteem will grow. As his self-esteem grows, he'll be able to perform acceptably with greater ease as the weeks and months go by. (Crook, 1977, p. 69)

What is interesting about behavioural interventions, however, is the emphasis placed not just on improved behavioural outcomes, but that these outcomes are a consequence of 'self-control': "it is the child's increased self-awareness and self-control that are the important goals of body control training rather than simply reinforced behaviour changes" (M. J. Fine, 1977a, p. 39). Bornstein & Quevillon review their research and that of others on self instruction, what they refer to as "verbally mediated self-control training" (Bornstein & Quevillon, 1979, p. 152). Kirby & Grimley (1986) conducted research on children exhibiting the behaviours in question, with a program "designed to reduce impulsivity and to increase children's attentiveness and self-control" (p. 3). This continues to the present: "As they grow and develop, all children are encouraged to move through the stage of being compliant to that of having self-control" (R. J. Alban-Metcalfe & Alban-Metcalfe, 2001, p. 34). After successful interventions, ". . . we are able to self-monitor, and thereby to control our own behavior, that is, develop self-control, which is the long-term goal" (p. 59). Williams (2001) summarizes ADHD as fundamentally an issue of self-control; that common and rare symptoms "form part of the wide range of difficulties with self-control" (p. 18).

What is particularly notable in the attempts to induce control is the emphasis on techniques meant to elicit 'internal' control of behavior. This finds an early an extended presentation in Domeena Renshaw's *The hyperactive child* (1974):

> behavior control . . . is the capacity to internalize outside controls by developing

> self-control. Example: To avoid the pain of being yelled at by parent, motorist or crossing-guard, a child learns to control his impulse to dash across a busy road. He tells himself internally to stop, and in this way he pleases authority. Additionally there is high survival value for himself. This self-control is also part of primary socialization. (pp. 60–61)
>
> Control of drives is learned by either identifying with the adult (to please and obtain praise) or behaving in a certain way to avoid unpleasant consequences. Mastery represents a new capacity in the child to internalize rules, which then can be followed spontaneously without needing constant external supervision or punishment. (pp. 63–64)
>
> Gradually direct external supervision will no longer be necessary as the child learns internally what is permitted and what is not, and then is able to control himself without the essential presence of an authority. (p. 68)

Note the connection between self-directed control and 'pleasing authority', an idea reproduced elsewhere, discussing the problem the hyperactive/inattentive child faces:

> he is unable to step back and understand and then control his own behavior in a way that enables him to satisfy other people and make them happy with his behavior. (Friedman & Doyal, 1987, p. 4)

In a discussion of behavioural interventions, the point is to "develop children's skills and desire to *independently* [italics added] display the appropriate behavior" (D. M. Souveny & Souveny, 1996, p. 7). Or again:

> Schools demand obedience, and many teachers see the road to obedience as being paved with Ritalin. But do we want to raise children who simply follow orders unquestioningly, or do we want to rear children with an *internal* sense of fair play? Of right and wrong? It may be every teacher's fantasy to shout, "Michael, quit that!" and he does. Or to order Nicole to clean out her cubby, and she complies. It certainly makes controlling the classroom much easier. (Freed & Parsons, 1997, pp. 28–29)

And later

> There's a high price for churning out obedient kids on Ritalin. While great at

> following orders, these children are less capable of making responsible decisions on their own. (Freed & Parsons, 1997, p. 29)

Alban-Metcalfe & Alban-Metcalfe (2001) say the same in their discussion of behavioural approaches. They distinguish internal and external control with the terms 'self-control' and 'compliance', respectively. Compliance is externally managed, through behavior modification and reward and punishment avoidance.

> In essence, the behavioural approach seeks to *control the child's behaviour from outside*, with the child being treated as a more or less 'non-thinking' individual. (p. 64)

They advocate a cognitive and metacognitive approach alongside a behavioural approach:

> The goal is *self-control*. The two approaches are complementary in that teachers and parents begin by imposing control and gradually educate the child toward self-control, and in that when the child fails to exercise self-control, external control can be imposed. (p. 64)

Others reiterate this

> . . . there are two ways to manage student behavior: First, the teacher or parent can attempt complete control, providing rules, regulations, structure, and discipline to manage student behavior. As long as the adult is there, presumably the student's behavior is under control. Second, the parent or teacher can teach the student self-management strategies to control his or her own behavior. In this way, whether or not the adult is present, the student's behavior is self-managed (Markel, 1981b). (G. P. Markel & Greenbaum, 1996, p. 135)

> The ultimate goal should be to help the student to develop self monitoring strategies that will assist them to function effectively on their own. (British Columbia, Ministry of Education, Skills and Training, 1998, p. 21)

Blackbourn, Patton, & Trainor provide a success story of a child in 4th grade who had trouble with ADHD but did not like medication. The teacher provided a visual and verbal prompt when this child got 'out of control'. "Sam's response was typically an immediate attempt to get his behavior under his own control

because he knew that otherwise he would have to get back on medication" (Blackbourn, Patton, & Trainor, 2004, p. 67).

Others who disapprove of behavior modification and related reinforcement strategies still maintain the same distinction between external control and internal control. They argue that the rewards of reinforcement plans constitute a false reward; that in their absence there is no changed behavior, and that motivation needs to come internally, not externally, to be independent, autonomous, and to develop "true learning" (Debroitner & Hart, 1997, p. 261). This position is shared by Armstrong because

> it may be far better to use behavioral strategies that *internally empower* students than those that externally control them. . . .
>
> We essentially want our students not to change their behavior like robots, but to do so with understanding, reflection, and learning, so that they can begin to regulate their own lives. (Armstrong, 1999, p. 97)

The acquisition of the skill to behave is not simply acting in accordance with the rule, but acting in a way attributable to the individual. Self-control, then, is not simply proper conduct, but proper conduct attributable to the motive force of the individuals' will. This poses a contradiction, as what is evidence for the will is precisely behaving in concert with the expectations of others, and this contradiction can be directly found in the literature:

> For some people behavior modification has distasteful connotations. They equate it with brain-washing, imposing our will on children, bribing, psychological torture, and forcing children to submission. All of these are, of course, repugnant and far from the truth. Behavior modification is based on the principle that our behavior is influenced and can be changed by the type of response it elicits. (Moghadam, 1988, p. 58)

At the same time as Moghadam denies the imposition of one's will on children, we see the following claim:

> The professionals teach the principles and procedures of behavior modification to parents and teachers of hyperactive children to assist them in their efforts to *bring the child's behavior more into line with societal norms and expectations* [italics

> added]. The goal is to teach the child how to behave properly, to recognize and follow rules, to cooperate with others, to be a better listener, etc. It is anticipated that when the child learns these skills, he will have more positive and rewarding relationships with other people and will function more productively in the home, school, and community. (Moghadam, 1988, p. 58)

Whether intended or not, the notion of 'self-control' dislocates the normalization process. On one hand, children are to behave, to be 'more in line with norms and expectations', to control behavior to satisfy others, to do what is right and proper; on the other hand they are to do so of their own volition. What is contradictory is that this volition is also something inculcated in these children. The task of treatment is to induce mechanisms of control which are 'internal' to the child, on the premise that such forms of control are consequently just.

It is clear that this apparent contradiction is the result of two purposes paired in these discussions of the aims of treatment: that the person in question both behaves accordingly, and does so of their own volition. We could imagine either scenario on its own. On one hand, one might pursue the disciplining of behavior, the attenuation of disruption, which could be achieved through physical restraint or chemical sedation, or through exclusion from the classroom or the community, or through stronger threats and bigger incentives. On the other hand, one might pursue the inculcation of self-control, with the conclusion that whether the people in question behave violently or passively, successfully or poorly, that their behaviours are attributable to them and them alone and not the determined by the influence of others and the stimuli at hand. Yet this literature does not simply state that people should be free in its most open sense, with total autonomy, but that people should be responsible: free to make the right choice, to accept the demands of one's situation and submit to self-control.

The pairing of these two otherwise independent purposes, proper conduct and self-control, and the attendant contradictions, leads to the concept of responsibility. When one is responsible, one is in control of one's self, and thus has some autonomy. However, one is also socially determined or controlled, for to be responsible for an act is to be able to be held accountable for it, to satisfy an

external judgment about whether it is right or not. This is an interesting stance in a discourse that appears to have been concerned with moral behaviour, deviance, and abnormality since its inception. The responsible individual is not merely the virtuous actor, but rather the person who holds himself or herself subordinate to particular demands, and does so in the apparent absence of direct compulsion. A cynical view would suggest that this is precisely the operation of which Foucault was critical: when one "becomes the principle of [one's] own subjection" (1979, p. 203). To be responsible is to be in a state of potential subjection to an external factor, without being morally justified in attributing one's behaviour to that externality, only to oneself.

Consider an example, found in David B. Stein's *Ritalin is not the answer* (1999). Stein is a very adamant critic of Ritalin, and provides extensive plans for behavior modification in lieu of medication. He relays a story of his older son who threw a toy at his younger brother. The older son then promptly walked away. Asked why, the child said he was going to time out of his own accord. "How's that for training?" (p. 129) Stein writes proudly. It seems impossible to conceive this scenario in simple terms of self-determination; what is self-control when said control is both induced and expressed according to the demands of something other than an independent self? If this child obtains a better life due to such faculties, has this child been manipulated or has he been cared for? What is the difference between this child going to time out on his own, being put there, or acting in a way which does not lead to time out to begin with?

This contradiction at the heart of interventions for these disorders, of making children responsible, is explicitly stated. The goal is not elimination of bad behavior in itself, but the attribution of behavior, when it occurs, to the individual and not to something else:

> In fact, support from both parents is needed to protect the child from hurt. It should not, however, negate the need for the child to be responsible for what he can do. After all, he will become 18 in as many years as any other child his age. (Safer & Allen, 1976, p. 108)
>
> [The problem with the common model of hyperactive children is that] the child is

> not assigned any responsibilities for his own behaviour or for what happens to him. (Mira & Reece, 1977, p. 50)
>
> *Responsibility for the child.* (Or don't look at me, I didn't do it). It's difficult to remember that, while the child is not guilty in connection with his misbehaviour, he is still responsible, to some extent, for what he does and does not do. . . . The impulsive behavior of the child tends to make adults believe the child cannot, or will not, understand that consequences result from his actions. (Rogers, 1979, p. 89)
>
> The aim of the school is to educate children to become productive members of a democratic society. We want our children to become self-confident, successful persons who assume responsibility for their behavior. . . . If we want ADHD youngsters to become productive and responsible, we must establish and maintain psychoeducational programs in the schools to achieve these objectives. (Lavin, 1991, "Role of the school")
>
> Self-monitoring strategies involve the child more directly in learning how to pay attention to particular tasks. Emphasis is placed on developing responsibility for one's own behavior. (Knight, 1997, p. 66)
>
> Teenagers with ADD/ADHD will eventually learn to accept responsibility for their actions, but because of their two- to four-year developmental delay, they will do it later than their peers. In the interim, teachers can help by *providing accommodations, occasionally being flexible about submitting assignments on time, and "shaping" the desired behavior*. (Zeigler Dendy, 2000, pp. 313–314)
>
> To optimize the learning potential of this period, strategies must be implemented that not only allow students to govern aspects of their life but also teach them how to make choices and behave responsibly. (Cimera, 2002, p. 109)

The concern with responsibility has existed from early inquiries into the physiological basis for hyperactivity. Dubey (1979) argued that if hyperactivity was indeed the result of a damaged organism, there would be less reliance or focus on prevention; treatment would become medically oriented and likely pharmacological; and finally, "the assumption of organicity could lead both child and parents to absolve themselves of responsibility for the child's behavior" (p.

39). Dubey's concern is more than whether we have poor empirical grounds for justifying the non-attribution of responsibility. It is not simply that we are unjustified in doing so (in the same way that we may end up unjustified in believing in a spirit after empirical examination, or the like) but that this loss of justification is something to be mitigated.[1] More recently, Maté (1999) says that while it is important to recognize the conditions under which people become deviant, or end up in difficult lives,

> We must all accept responsibility for our actions, else the world becomes unliveable. . . . We are not helpless in the face of ADD, so on the personal level an attempt to shift the responsibility for negative behaviours onto brain circuits is unhelpful. It locks a person into victimhood. (pp. 22–23)

The literature presents the ascription of responsibility to others as a fundamental necessity, rather than a particularly valuable capacity, or as an instrument by which people may flourish.

If the task is to ensure that those with ADHD are responsible, how is one supposed to do this? To what extent can we look at ADHD treatments as attempts to produce an individual who others or institutions can hold responsible? It seems the point of much treatment is not simply to liberate or quiet deviant children, nor does it stop at the point where those with ADHD are free to be authentic selves, whether through the grace of drugs or behaviour modification. The ultimate end is to make sure that they can be held accountable for their actions, that they become responsible subjects. The task is to no longer be able to attribute the behaviour of the ADHD-diagnosed individual to externalities such as compelling stimuli and the environment, but to be able to attribute behaviour to that individual as such. To return to Foucault, we might ask the importance of this control, the importance that the control come from the individuals themselves.

A Normalization Project

These disorders provide a field of techniques for the management and normalization of populations and for the production of a particular kind of subject. If we can categorize these interventions as part of a "normalization

project", what is of interest is the target of the normalization. One can imagine a project which targets a particular dysfunction and aims to alleviate a particular form of suffering, to enable the bearer's reintegration into social life. In contrast, the normalization project at work for disorders of inattention and hyperactivity targets norm-following in itself. The goal is not to increase the proportion of people who follow a particular norm but to increase the proportion of people who can participate in the game of norm-playing, of making the appropriate calculations between actions and outcomes, of participating in relationships of obligation and indebtedness.

In this gap between propositional and procedural knowledge, we see why Foucault's framework is useful. These disorders are not presented as problems of acquiring general principles or specific assertions, nor as problems of the physical body. The trials of ADHD are not as simple as a body which moves against one's will or a mind which is helpless before specific stimuli. It is a problem of subjectivity, of being-in-the-world, of behavior. The body of the ADHD subject is worked on but not to produce a better body; the mind of the ADHD subject has to exercise itself, but not to produce a better mind, cognitive style, and so forth. The body and mind are worked on in order to bring about the capacity to act in the world in accordance with the expectations of authorities and internalized expectations about the self. To suffer difficulties at school, in social relationships, to fail to plan for the future, to engage in risky activities—all are evidence of a deficiency of the ability to connect present action with future consequences, to moderate one's immediate behavior in the service of other interests or principles. For the ADHD-diagnosed child, it is not sufficient to report the absence of impairment as a result of treatment; treatment aims at making a child who demonstrates academic improvement, social skills, self-esteem, and responsible behavior, or is able behave properly. This strikes me as both conventional and peculiar: conventional as it confirms that institutions such as the school, family, and medicine are about socializing children and are not exempt somehow from norms. Peculiar as the techniques for socialization are frequently pharmacological and self-conscious (i.e. made explicit).

Conclusion

ADHD interventions are about making an ethical subject. The most comprehensive and defensible mainstream theory of ADHD, that it is an inability to connect current actions with future consequences, translates as a deficiency in the ability to follow the rules of social life. We find that ADHD is described as an inability to follow a rule, to hold one's self or one's behavior to a principle that one nonetheless knows. To the extent those diagnosed with ADHD cannot 'get on' in the world successfully, interventions aim to restore those who exhibit this deviant behavior to normality. However, this normality is not that of the ultimately successful agent, but an agent whose success and failures are theirs alone.

The ability to follow norms is not an abstract universal capacity which is exercised to more or less a degree. ADHD suggests that the capacity to be a social subject, it appears, is enabled through somatic intervention. I am arguing that we may reconsider what our relationship to normality and abnormality might be when we cannot just posit the existence of abstract individuals who go out into a world, already armed with the capacity to respond to whatever set of incentives and disincentives are present. This suggests that socialization is an iterative process, that one's ability to acquire normal behaviours and principles is itself an acquired ability, not something which precedes the efforts of agents and institutions one encounters.

With all this in mind, we may revisit some of the attitudes of those who champion a medical understanding of such a disorder as well as those critical of such an understanding:

> The yoke of moral indignation from others, character indictment, sinfulness, and willful neglect of social responsibilities can therefore finally be lifted from the shoulders of those with ADHD; they need bear it no longer, for it is clear now that to continue to hold such views will bespeak a stunning scientific ignorance about this disorder. If we are to effectively assist with the management of ADHD, it will not only be in casting aside such moral judgments. Nor will it just be in the recognition that environments must be restructured around those with

> the disorder and that medications may be needed for many and humanely applied to symptomatically improve their inhibitory deficiencies. It must also be done with the idea that such efforts at management are for the long-term and must be accompanied with compassion and acceptance of the disabled individuals. (Barkley, 1997, p. 349)

Foucault might respond with a series of questions:

> What is the purpose of these establishments that are proposed as alternatives to the old prison? It seems to me that they are not so much alternatives as quite simply attempts to ensure through different kinds of mechanisms and set-ups the functions that up to then have been those of prisons themselves. (Foucault, 2009, p. 15)

> the issue is not about a form of punishment that would be more gentle, acceptable or efficient, for a prior question arises which is more difficult to address, and it is this: can one in effect conceptualize a society in which power has no need for illegalities? (Foucault, 2009, p. 24)

While it appears just to help children and adults who suffer, it is precisely this prior question which is at stake in the present analysis. Similarly, in response to Timimi's (2002) position that medical models of ADHD are harmful to children, and that they obfuscate the deficiencies in our moral climate, one could quite easily counter the reverse and say that ADHD emerges because of an improved moral climate: we no longer employ the corporal punishment that keeps children in line; we prohibit children from self-medicating with coffee, alcohol, and cigarettes; we no longer allow children to work in coal mines and at factory looms, which would otherwise engage their attention and cultivate a knowledge of danger and its consequences; we no longer tolerate putting delinquent children out of sight in asylums, orphanages, prisons, and the streets, so that their behaviour is less visible or controlled according to different rules; and so forth. These models are equally 'cultural' but with a much different moral theme.

What remains constant in these approaches is the legitimation of intervention in the lives of those who transgress norms and who transgress traditional forms of management. There is no antecedent situation conceptualized where children and

adults are simply free to be as they are; any hypothesized past prior to the emergence of ADHD and related disorders offers a different regime of power for managing children, not the absence of such a regime. The constant conclusion is children have to be managed properly, regardless of one's attitude to the status of a specific disorder.

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[1] Dubey does not answer, nor pose clearly, the question of whether the fact of organicity (instead of simply its assumption) would justify a disavowal of responsibility.

Chapter 6: Pharmacological Treatment

Introduction

> It does not matter whether one "believes" in medication or not, as the question is so often phrased by the naïve. Medication management is not a religious belief requiring a leap of faith to endorse it. Contrary to the political propaganda and scientifically illiterate blather one may discover in the popular media, some Congressional hearings, and zealotry-tainted websites against medication and even ADHD as a diagnosis, medication management is a more well-established intervention in clinical science than is any other treatment strategy presented here. (Russell A. Barkley, in the foreword to DuPaul & Stoner, 2003, p. x)

Medication is one of the means by which the normative project of ADHD treatment is carried out. In this chapter I give a brief overview of the current understanding of how medication for disorders of inattention and hyperactivity functions. I follow this with a discussion of how medicine presents a threat, not of side-effects, but to the task of making responsible subjects. Medication threatens to relocate agency from the person undergoing treatment to the treatment itself. In the discussion of medication there is a significant commitment to ensuring the attribution of responsibility to the individual treated. This commitment persists regardless of the success or failure of medication; the threat is not dependent upon whether medication produces the desired outcome vis-à-vis behavioural inhibition or not. This literature presents four strategies, or fields of possible actions, such a threat can take, and advises the reader to pre-emptively guard against them.

Medication

The most popular drug for treating ADHD is methylphenidate hydrochloride, most well-known by its Novartis trade name Ritalin. First synthesized in 1944, and first used for depression and narcolepsy, in 1961 Ritalin received Food and Drug Administration approval for use in children in the U.S. Other stimulant variants include Dexedrine, Adderall, Concerta, and Focalin. Dexedrine and Adderall are amphetamine-based, compared to the methylphenidate-based Ritalin, Concerta, and Focalin. All stimulants, these drugs affect the brain's

neurotransmitters, specifically dopamine and neuroepinephrine, and do so in areas of the brain linked to reward, punishment, and motivation. While the specifics of the interaction of methylphenidate with behavior are complex and not fully-clear, there are general hypotheses and conclusions about why stimulant medication for children elicits the responses it does; I will take some effort here to schematize how such medication is theorized to work.

As people move through the world, they encounter various stimuli which elicit neurological activity. One can imagine simple scenarios where people encounter temptations or dangers. People do not simply detachedly perceive such stimuli in terms of their colour, shape, or movement, these stimuli result in a motivated response, such as pleasure, or fear, or inducement to act. Thus, the voice of a loved one will prompt a response different than that from the roar of a sabre-toothed tiger. Furthermore, as people interact with this world, their interactions receive reinforcement. Perhaps the tempting food tastes good, and thus induces the individual to pursue more of this food. Or one successfully practices a skill, and successful performance provides a confirmatory and rewarding stimulus. Alternatively, one may touch a hot stove, or receive social rejection, and thus one is dissuaded from repeating that interaction.

Such stimuli, such interactions, prompt activity in the areas of the brain tasked with motivation and reward. A stimulus acting as a reward or threat will induce neurotransmitter behavior in the brain, and the resultant reaction of the individual is due to the processing of these signals. Absent such connections, stimuli will not produce a response. That is to say, neurotransmitter activity is not something which co-occurs with a person's motivation, for example. People do not respond to things which they like alongside exhibiting particular neural activity related to that response; it is more parsimonious to recognize that the 'liking' of a stimulus and the neural activity are co-extensive.

More specifically, stimuli, whether visual stimuli, or audible, or the stimulus of a promised reward or inferred danger, induce the release of neurotransmitters dopamine and neuroepinephrine across the synaptic gap, enabling intercellular signals. After release, transporters reuptake the released neurotransmitters. The

persistence of signal communication in such connections is associated with motivation and reward. This is to say that stimuli induce a response from the individual precisely through successful connections in this reward system. Thus, one can frame cocaine's effects through this model: Cocaine is theorized to block dopamine reuptake. This leaves more dopamine in the synaptic gap, further triggering the propagation of the initial signal. This explains the feelings of increased energy and confidence, the euphoric effects of cocaine. When using cocaine, one's reward system receives increased activity from the same stimulus, roughly speaking.

Consider someone who does not fit diagnostic criteria for ADHD. When confronting a stimulus, this stimulus prompts the release of neurotransmitters across a synaptic gap, inducing a particular response from the individual, one which will be what is expected—the stimulus of a lecturer will obtain some attention, for example. Consider however someone who does fit said diagnostic criteria. When confronting the same stimulus, disproportionately low levels of dopamine will exist in the synaptic gap, making weaker connections. This weaker connection is what results in the inattentive response. Those diagnosed with disorders of inattention and hyperactivity behave as if stimuli do not have normal effects on behavior, or that there is insufficient activity in the synaptic gap of the reward systems of the brain. A stimulus such as a deadline, a threat of social sanction, or a small reward is insufficient to induce successful signalling across the synaptic gap as compared to peers. The reward system is not activated sufficiently, and the stimulus does not elicit the expected response. This appears to be why stimulants are therapeutic for those diagnosed. According to the dominant understanding, methylphenidate affects the synaptic gap of the brain's reward system. A stimulant, it blocks the reuptake of dopamine in the synaptic gap, therefore altering the threshold by which a given reward induces a particular response. By inhibiting dopamine transporters, Ritalin increases the level of neurotransmitters in the synaptic gap and increases the consequences stimuli will prompt in the individual. A stimulus which prior to medication would elicit low-level signals would, post-medication, result in the synaptic connection being

made with more intensity.

Thus, if prior to medication many individuals with ADHD pursue thrilling activities, this is due to the fact that only such activities are sufficiently strong to elicit action on the part of the individual. It is not that one selects among risky activities and less risky ones, choosing the former, but that it is only the former which are able to trigger any motivation to act. This explains the problems of rule-following in Chapter 5. Even if an individual with such a disorder can articulate the rules and the penalties for following them, even if this individual is cognizant of the presence of lower-intensity incentives, or what he or she is expected to see as incentives, they offer very little motivating force. They simply do not prompt an adequate response. There is no way to circumvent such problems through 'willpower' or the like either, if it is such faculties which are impaired to begin with.

Coupling this understanding of the operation of Ritalin and associated medication with understandings of these disorders as one's of proper behavior, not excessive movement, we can see why they would be taken up for these disorders in a way in which tranquilizers and sedatives are not. The goal is to match one's proper behavior with incentives and disincentives, not to simply render a body inert.

In the Literature

In most books written with advice in mind and which include programmes for treatment, a chapter will be devoted to medication. These works will detail what sorts of medication are available and commonly used, what the potential side effects are, how to monitor their use and success, and depending on the audience, what discussions to have with teachers, parents, physicians, and children taking the medication. Some of this literature promotes alternative interventions for bringing about behavior changes and will be equivocal or critical of medication. Other literature again takes a more extreme stance, specifically targeting Ritalin as harmful. While there has been significant concern expressed over the side-effects of ADHD medication, particularly in the flattening of affect, long-term effects on growth, sleep patterns, and appetite, these effects can in

theory be determined factually. There is however also some concern over whether medication works as intended, or whether it is a pseudo-panacea. ADHD skeptics have devoted considerable attention to these issues leveraging the ambiguity of effects and side-effects for their cause.

> . . . the reality is that claims about ADHD being a genuine medical disorder and psychotropics being genuine correctives have been shaken by criticism. (Timimi et al., 2004, p. 59)

Criticism stems not just from the side-effects of medication but from the idea that medication *controls* children. This control is suppressive, inhibiting behavior:

> It is understandable that we want to curtail the behavior of a child who is disrupting the learning environment for other children or becoming a terror at home, However, *Ritalin is chemical restraint*. (Stein, 1999, p. xvi)
>
> [Ritalin] controls the behaviors and, as a result, Nancy loses opportunities to learn to control herself. (Stein, 1999, p. 36)
>
> In today's society, the drugging of children to control their behavior is viewed as a medical activity, but it has little or nothing to do with the genuine practice of medicine. It is the technological control or suppression of behavior. The fact that medical doctors implement the control does not make it a legitimate medical enterprise. The drugging of children for behavior control should raise profound spiritual, philosophical, and ethical questions about ourselves as adults and about how we view the children in our care. Society ignores these critical questions at great peril to itself, to its values, and to the well-being of its children. (Breggin, 2001, p. 140)
>
> The authors contend that the "treatment" in the medical model is in reality mere symptom suppression, and that the answers to the problems of A.D.D. and related learning disabilities are not in pushing pills. (Ali, in the foreword to Debroitner & Hart, 1997, p. x)
>
> Whether or not there is agreement on the existence of ADHD as a discrete disease entity, one thing is certain: Psychoactive drugs do not promote well-being but simply remove the symptoms that indicate a child is having difficulties. The underlying philosophy of traditional medicine strives to help individuals achieve

> true health, not just put on a mask or veneer of wellness. (A. J. Romm & Romm, 2000, p. 63)

These assertions meet rebuttals elsewhere, e.g.:

> *Myth: Medication "drugs children into submission."*
>
> *Reality*: Medications for ADD, with rare exceptions, stimulate. They don't sedate, and they don't mask symptoms. They can't force a child to meet someone's arbitrary behavior standards. Medications that help ADD allow the child to make better choices about his actions. (Setley, 1995, p. 73)

In this example, medication is seen as enabling behavior, rather than restraining it. Instead of being at the mercy of the strongest stimuli, the child with such a disorder is able to moderate responses in a more measured fashion, selecting among options according to principles other than the immediate satisfaction of desire.

One form that reassurance about medication takes is a comparison between stimulant medication and other interventions which are more widely approved. In particular, insulin for diabetes, and glasses for vision correction:

> Many believe it's okay to take insulin for diabetes or blood pressure for hypertension but that it's not okay to take an ongoing psychiatric medication. (Kelly & Ramundo, 1993, p. 305)

The authors continue:

> It's unfortunate that the crutch of psychotherapy or medicine is often viewed as either short-term emergency medical intervention or regarded as a cop-out to avoid problems. In reality, there is little difference between needing to work in a quiet environment or taking medication, and using glasses to improve vision. Each is designed for improved functioning. (Kelly & Ramundo, 1993, p. 306)

We find similar statements elsewhere:

> Some doctors have compared the use of medications for attention disorders with the use of insulin for diabetes. Medication for ADHD and ADD allows the child to function with a more normal brain chemistry, while insulin helps a diabetic function with better blood chemistry. The analogy to vision also applies: glasses

> help thousands of people to see better. Without glasses or contacts, many cannot even function. (Copeland & Love, 1991, pp. 125–126)
>
> The most productive attitude toward medication for AD/HD is to regard it as you would insulin for a child with diabetes or antiseizure medication for a child with epilepsy. If you were told that your child had diabetes or epilepsy and had to take medication every day or risk severe symptoms what would you do? Very few parents would respond, "I prefer to take a psychological approach to train my child not to have diabetes" or "That would be teaching my child to take the easy way out instead of taking responsibility for his illness." It's the same thing for a child with AD/HD. (J. Morris, 1998, p. 120)

If medicine operates as eyeglasses or insulin, it restores a particular level of functioning, but does not in itself produce desired behaviours. To extend this literature's own analogy, glasses allow a child to better see the board in the classroom, but they do not force the child to read the board or to benefit from the ability to read it. There is thus a further consequence to medication, as it sets the child up for other forms of intervention. It permits the development of appropriate skills which are taught in tandem with a medication regime. Thus remedial behavioural efforts are applied. Flick (2000) repeats the common refrain that "a 'pill teaches no skill'" (p. 67), warranting complementary behavioural interventions. Similarly,

> Medication cannot 1. compensate for "lost" years of learning, not only academic, but practical tasks like skill at play, dressing, chores, games, table manners, etc. Patient and gentle re-teaching should be done as soon as the child settles down on medication. Many of the skills can be learned with encouragement and persistence. (Renshaw, 1974, p. 156)
>
> Advocates of the behavioral approach emphasize that although drugs may make a child more manageable, they do not teach the child appropriate, nonhyperactive behaviors. (Brundage-Aguar, Forehand, & Ciminero, 1979, p. 53)
>
> Contrary to some parents' fears, medicine does not change the child's basic nature. Children treated with medication are simply better able to accomplish what they want to do. Treatment does not force a child to be good, to change his

> consciousness or to diminish his freedom of expression. Whatever the child's goals, he will simply accomplish them more successfully on medication than off. Our experience shows, however, that ADHD/ADD children and adolescents desperately want to be successful, to have friends and to be in charge of their lives. To be out of control most of the time is devastating to their internal sense of stability, predictability, self-control and confidence. (Copeland & Love, 1991, p. 126)

> Having the child learn correct behavior is the best thing we can do for that child. A pill does not teach correct behavior. (Stein, 1999, p. 51)

> Medication should be considered as an adjunct to an individual's own natural abilities and efforts, thus enhancing self-empowerment and self-esteem. Although psychopharmacologic intervention is the mainstay of treatment in ADD/AD/HD, medication should only be used in the context of a multimodal treatment approach. (Lance Steinberg, 1999, p. 233)

> I have ADHD and I had to learn to live with it. I had to learn to modify my behavior and retrain the way my brain works. Medications help but they will not resolve my impulsiveness, anger, low concentration and frantic bursts of activity followed by long periods of laziness. I had to learn how to control myself because I couldn't keep taking Ritalin all the time to modify my behavior. I would rather be unmedicated for the rest of my life than be medicated day in day out. Most parents and doctors don't really understand how it feels to be knocked out by this medication for days on end. (Polis, 2001, pp. 45–46)

Thus, while the intent of medication is to address symptoms, its ability to augment inhibitory control is insufficiently satisfactory to address the concerns over disordered behaviours. To restate the theme of this literature, the goal is not simply alleviating a discrete impairment, but actively producing individuals who know how to follow the rules. The phrase 'pills don't teach skills' and the understanding of medication as providing a 'window of opportunity' indicate that medication is often necessary to enable the acquisition of new behaviours but not sufficient to bring about those behaviours. While medication provides the freedom to learn how to direct one's self, to meet goals and make choices, this is a freedom only to make the socially-approved choices and pursue appropriate goals, which

result in improved outcomes of objective measures:

> When the stimulant drugs are effective, HA children generally become calmer and less active, develop a longer span of attention, become less stubborn, and are easier to manage. In addition, they frequently become more sensitive to the needs of others and much more responsive to discipline. (P. H. Wender & Wender, 1978, p. 50)
>
> Activity control—Inappropriate overactivity subsides and coordination improves in the gross and fine motor skills and in the language skills, She isn't interrupting, talking nonstop, or shouting. She's not so clumsy. . . .
>
> Conscience—The child can think responsibly before taking action. She's less attracted to mischief and respects boundaries. Moral judgment improves, and she's more likely to see the harm in an action and respond to it. (J. Morris, 1998, p. 125)
>
> Mind-altering drugs are not the right way to teach children to learn and behave. . . . [The goal is] a well-behaved and motivated child. (Stein, 1999, pp. 16–17)

One can imagine that medication treatment in itself liberates the individual from subjection to the environment and the present, able to better make whatever choices suit the individual. If those with disorders of inattention and hyperactivity are compelled to pursue the immediately- and immanently-demanding stimuli at the exclusion of more abstract demands, we might imagine the opposite case. Someone who could treat all possible actions and stimuli as equal, to be selected on the grounds of abstracted rationality rather than passion, could comport him or herself in accordance with any principle, to be as free as calculation would allow.[1] However, as it stands, for those who have their capacity for decision-making enhanced through pharmacology, acting in ways which do not fit what are correct choices, behaving in socially-disapproved ways, is not evidence of emancipation but rather evidence that further interventions are required.

One might ask if those taking medication have a right to take it and make decisions which others do not like, or whether the provision of medication is conditional on improved compliance. We might ask whether people feel free to

make their own decisions on medication, but this is difficult when other interventions are intended to induce the capacity for decision-making and to convince those being treated that they are making the decisions for themselves. Against the idea of medicine being chemical control, descriptions of the mechanisms of medication suggest it is ambivalent. On one hand, it does not inhibit actions. On the other, it makes people more amenable to behavior modification. In a list of things to discuss with children on medication,

> it is useful to have him recognize and acknowledge problems in his own behavior *that he himself does not like*, so that he will not feel that medicine is being given to him simply so that other people can tolerate him more. (P. H. Wender & Wender, 1978, p. 61)

If there is any mechanism of control presented in discussions of treatments for ADHD, it is not medication itself, but rather the standard of behavior to which children are to adhere. While this standard may be reasonable, it is nonetheless the metric by which the success of intervention is measured. What to make of someone who takes Ritalin and continues to behave the same way, but in the latter case out of will and not subjection? What measure could be made to distinguish the two? While children who receive treatment largely report being happier, there are no evaluations on whether the child reports a feeling of liberation or greater freedom, but rather on whether academic performance and conduct improve. Self-esteem and social interaction may improve as well, but there is no laissez-faire treatment; at all points disvalued behavior is to be mitigated.

Attributions

The principle of self-governance is reiterated in medication treatment. There is a clear goal that children must come to see themselves as effective actors, as the ones in charge of their behavior. We can find such concerns about responsibility and its attribution early on, in *Raising a hyperactive child* (Stewart & Olds, 1973), one of the earliest books directed at parents of children with hyperactive children. The authors express concern over the use of medication:

> Another difficult issue is that drugs allow the child, his parents, and teachers to

> "cop out" of responsibility. It is not uncommon to hear of a child excusing some bad behavior on the grounds that he had not taken his pill that day. It is common for parents to give an extra pill when their child is unusually difficult, or for a teacher to wonder out loud whether a child has taken his pill rather than asking herself what she might do to help him through a bad spell. (Stewart & Olds, 1973, p. 243)

There is a contradiction here about the point of interventions, one which medication makes particularly clear. On the one hand medication is used for its particular effects. On the other hand, that effectiveness itself threatens the 'responsible self-(concept)'.

> We are very cautious, of course, about encouraging children to look to medication as a solution for their problems or allowing children to become so dependent on medicine or other forms of help that they lose the motivation to seek ways to deal with their problems themselves. (Friedman & Doyal, 1987, p. 28)

This question of attribution is largely limited to drug interventions. There is no concern over misplaced attributions in the context of other interventions, such as environmental or behavioural modification. The transformation of physical space or behavioural management techniques do not come with caveats that the child may attribute causal power to those techniques rather than to the self.

This fits with 'pharmacological Calvinism', a term coined by American psychiatrist Gerald L. Klerman. Writing about the then-expanding range of applications for pharmacology, with increasing numbers of people using medication for "symptoms often associated with the stresses of everyday life in modern industrial society" (Klerman, 1972, p. 3), Klerman posited a moral spectrum when it came to drugs, placing 'psychotropic hedonism' at one pole and 'pharmacological Calvinism' at the other (1972, 1974). 'Psychotropic hedonism' results from the accepting stance towards alcohol, tobacco and caffeine, the commercial glamorization of recreational drug use, the attempt of pharmaceutical companies to broaden their appeal and market share, and most significantly, from 'youth culture's' comfort with recreational drug use and proportional disvaluation

of ‘achievement’. ‘Pharmacological Calvinism’ views drugs as subordinate to hard work and personal improvement. Because of the expectation that drugs become a ‘crutch’, enabling dependency,

> drug therapy is thus a secondary road to salvation, the highest road to salvation is through insight and self-determination. . . . Thus, if a drug makes you feel good, it not only represents a secondary form of salvation but somehow it is morally wrong and the user is likely to suffer retribution from either dependence, liver damage, or chromosomal change, or some other form of medical-theological damnation. Implicit in this theory of therapeutic change is the philosophy of personal growth, basically a secular variant of the theological view of salvation through good works. (1974, p. 91)

To become well through medication is to obtain something which is not earned, as well as to debase one’s supposed capacity for independent self-transformation. In the case of medication, Klerman’s pharmacological Calvinism persists in the literature on disorders of inattention and hyperactivity on an individual’s attributional style and his or her locus of control, in what we might call ‘a labour theory of virtue’. This takes form in the strategies I will discuss later in this chapter.

Outside of Klerman’s analysis of the cultural meaning of medication, it is important to mention research on attributional style. Early work by Rotter (1966) was on whether people have an internal or external locus of control; that is to say whether they attribute successes to their selves and their own efforts or to other causes. There is some evidence that those with an internal locus of control, whether this is true or not, report greater outcomes than those with an external locus of control. Conversely, the phenomenon of ‘learned helplessness’, where an extreme loss of a sense of agency is reinforced, leads to pessimism, poor health, and depression. However, whether one is a champion or detractor of medication, the goal of a child who attributes agency to the self is consistent, as is the danger that medication presents in reaching this goal. When problems of attribution emerge in this literature,[2] this fear is taken for granted, and not, for example, citing supporting literature or enumerating any problems which may result from

such attributions.

> It is also important in giving medicine to children that they do not get the idea that because they have to take medicine they are somehow excused from assuming responsibility for their own behavior. HA [hyperactivity], like any other illness, does not negate free will. It may limit or modify someone's behavioral options, but it does not eliminate them. Children *can and must feel* that they share a responsibility for their behavior. They should not attribute all their actions to powers beyond their control. (P. H. Wender & Wender, 1978, p. 62)

Wender is equivocal on whether children *actually* 'share a responsibility for their behavior' or whether they simply must *feel* they do. Also, we do not know why they '*must* feel they share a responsibility for their behavior', except to say circularly that otherwise they will not claim responsibility for their own actions. These caveats about attributions of agency are in fact are rarely justified by those uttering them. To not see oneself as the agent of one's actions is axiomatic and self-supporting, and preceded much of the work on attributions and medication for disorders of hyperactivity and inattention. In fact,

> studies that have examined child attributions related to medication and ADHD symptoms indicate that generally children credit themselves for the gains they make. (Ivanov & Newcorn, 2005, pp. 99–100)

There is less of a concern with the consequences of attributional style than there is a recognition of the potential changes in strategies which one can exercise in the field of ADHD, as I will now discuss. The intersection of medication and ADHD enable a number of potential strategies, strategies which constitute a threat to be guarded and prepared against, culminating in attempts to foreclose the execution of those strategies. More specifically, medication and ADHD provide ways of exercising power. In this sense, it is a direct example of Foucault's conceptualization of power as the conduct of conduct, an action on the present or future actions of another.

Foucault & Power, and Four Strategies of Medication

Foucault says that power is

> inscribed in a field of sparse available possibilities underpinned by permanent structures. (Foucault, 1994a, p. 137)

He elaborates:

> It operates on the field of possibilities in which the behavior of active subjects is able to inscribe itself. It is a set of actions on possible actions; it incites, it induces, it seduces, it makes easier or more difficult; it releases or contrives, makes more probable or less; in the extreme, it constraints or forbids absolutely, but it is always a way of acting upon one or more acting subjects by virtue of their acting or being capable of action. A set of actions upon other actions. (Foucault, 1994a, p. 138)

This understanding of power applies to how this literature presents the challenge medication poses to attributions. It results in four strategic situations, offering possibilities which can be mapped based on the presence or absence of two variables: medication and disvalued behavior. They allow the exercise of power, of set of actions on other actions. They make some responses more likely and they foreclose other options.[3] Each combination receives attention in the literature, as I will now show.

Strategy 1: Misconduct and No Medication

The first strategy occurs when there is disvalued behavior and medication is absent. The strategy is to excuse the ADHD subject's behavior:

> It is not uncommon to hear of a child excusing some bad behavior on the grounds that he had not taken his pill that day. (Stewart & Olds, 1973, p. 243)

> When he has not behaved in an appropriate way, he frequently can excuse himself because he hasn't taken his medication. . . . "What can you expect of me? I am HA [Hyperactive] and my medicine has worn off." (P. H. Wender & Wender, 1978, p. 63)

> Be sure your child realizes that he is responsible for his own actions. As his schoolwork improves, give him the praise that he deserves. When he lags behind or misplaces his assignments, offer incentives for getting the work turned in. Don't let your child use forgotten or worn-off medication as an excuse for

> inappropriate actions or for failure to attempt academic achievement. (Moss & Dunlap, 1990, p. 90)

The threat is that the child will have recourse to the principle that it is unjust to punish people who are not in control of their behavior. If misconduct is present but medication is absent, the strategy for the person with the diagnosis is to avoid penalties by displacing blame onto the absence of medication and denying culpability. Furthermore, it is clearly a situation of avoiding penalties, as the behavior in question is 'inappropriate' and 'bad behavior'.

Strategy 2: Misconduct and Medication

The second strategy also occurs when there is disvalued behavior but in this case medication is present. If taking medication is proof that one has a disorder, then one can again attribute one's behavior to the disorder, not to one's own self-control:

> It is also important in giving medicine to children that they do not get the idea that because they have to take medicine they are somehow excused from assuming responsibility for their own behavior. ADD, like any other illness, does not negate free will. It may limit or modify someone's behavioral options, but it does not eliminate them. Children *can and must feel* that they share a responsibility for their behavior. They should not attribute all their actions to powers beyond their control. (P. H. Wender, 1987, p. 75)[4]

> The child must also be made to understand that medications should not allow the child to avoid consequences for inappropriate behavior. (Flick, 1998, p. 79)

> Using something as a crutch means that you blame it for your problems, mistakes, and failures. You use it as an excuse for everything that goes wrong. If you have a crutch, you do not need to try to improve or to work harder because you can tell yourself and others that there's simply nothing you can do. You can pretend that none of your difficulties is really your fault. (Beal, 1999, p. 47)

> Some use ADHD as an excuse, abdicating responsibility for behaviors that may be under his or her control. Diller (1998) refers to studies that children with ADHD labels tend to hold themselves less accountable for their behavior than other children. (Nylund, 2000, p. 31)

The strategy in this case is to deny culpability to one's self. Medication itself is evidence that one cannot control behavior, and thus when behavior is inappropriate it is not something for which the individual in question can be culpable.

Strategy 3: Proper Conduct and Medication

The fourth strategy occurs in the absence of disvalued behavior but in the presence of medication. There is the threat of the individual's attribution of success and behavior to the medication, treating it as an agent:

> Parents should not say to him: "You are acting up. When did you have your medicine?" Putting things this way leads the child to believe that he has no control of himself, and it may put him in the position of having his "badness" explained by the absence of medicine and his "goodness" explained by its presence. If so, he can take no credit for controlling himself. If so, he can take no credit for controlling himself, and when he has not behaved in an appropriate way, he frequently can excuse himself because he hasn't taken his medication. (P. H. Wender & Wender, 1978, pp. 62–63)

> Drugs, like alcohol, are a crutch, and a very poor crutch at that. Is it either right or proper or necessary to teach the child that the little pill is the controller of his behavior, that he is really not capable of control, but not to worry, because the little pill will take care of everything for him? (Rogers, 1979, p. 137)

> It is possible to explain to a child that the medicine has an effect on his behavior without adding to his feelings of inadequacy and without making him feel that drugs are a way to control behavior. (Friedman & Doyal, 1987, p. 22)

> Though the medication can be a great aid, it must not take responsibility for behavior away from the child. The child must know that, though the medication may help, it does not control.

> The child's retention of free will should be stressed and explained to him for two reasons. First, a child, particularly as he grows older, does not want to take medication that he feels will control him. He may feel that you are trying to turn him into a zombie that will do exactly what you want him to do. It must be made clear that he can still behave as he wishes; he may still be just as bad as he

wishes, as long as he is aware of the consequences. . . .

Secondly, it's not a good idea to have a child attribute his actions to powers beyond his control. Here again, it's important to point out that medication will be helping, not controlling. (Beugin, 1990, pp. 87–88)

Likewise, I would urge you, as a parent or an educator, to refrain from making comments that link a child's undesirable behaviors to a need for medication. It is best not to say, "You're acting like you need some more medicine," or "You wouldn't have done that if you'd taken your medicine today." The medicine should never be regarded as a puppeteer pulling the child's strings. Although we can all appreciate the tremendous benefits of the medication, the child must know that he is still in control of his actions and is truly responsible for his academic and social accomplishments; he is also ultimately responsible for his shortcomings. (Moss & Dunlap, 1990, pp. 90–91)

Families should also try to instill in the child a sense that he has the ability to overcome his problems. This can be problematic if the child is taking medication. He may attribute his success to the drugs rather than to his own accomplishments. As parents, you must reinforce to your child that the drugs help him focus better and maintain control so that *he* can use his natural abilities more successfully. Further, you should reward your child's efforts and use language that shows him that you attribute his success to his efforts. (Bain, 1991, pp. 175–176)

If individuals are not advised that their improved behavior and achievements are their own, but come to believe them to be the result of the medication's effects, problems can arise. It is the job of parents, teachers and doctors to teach personal responsibility and to reward positive results in such a way that the individual understands that the medication is not responsible, but that he or she is. (Cooper & Ideus, 1996, pp. 71–72)

Children taking Ritalin have one more reason to be looking for self-structure outside of themselves instead of inside where true empowerment takes place. As long as the power and organization are experience as coming from outside the self, any change in behavior will be superficial and temporary. (Debroitner & Hart, 1997, p. 235)

This particular strategy receives the most attention in the literature.[5] The strategy available to those on medication, or the foreclosure of options to authority figures which is to be guarded against, is the disavowal of responsibility for successes. Interventions are meant to produce someone who exhibits responsibility. All questions of appropriate behavior aside, if success is attributed to medication, then responsibility fails to be inculcated in the individual in question, and the normalizing task of interventions will not take hold.[6]

Strategy 4: Proper Conduct and No Medication

The fourth strategic situation is simply a neutral situation. To use the vernacular, this would be the 'normal' or 'good' child. It includes children diagnosed with a disorder of inattention or hyperactivity who present proper conduct without medication, but also children who are not diagnosed in such a way. The behavior of the individuals involved is either their own or ascribable to other circumstances, but neither disorder of ADHD nor medication are necessary to account for it, and are not invoked to legitimize action nor to understand the situation. Since neither medication nor disvalued behavior is present, there are no resources of power in play and the field is empty of relevant constraints and incentives.

Conclusions

These four different strategies are instructions or warnings to the reader to prevent particular scenarios. The implication is that the arguments are otherwise legitimate, that if one manages to ascribe behavior to the medication and not to the self, then one can claim exemption from the usual sanctions. Such a person would continue to stand outside of the normalization project of inclusion in the field of responsibility towards incentives and disincentives. At the level of physiology, medication may actually modify one's relationship to reinforcement and subsequently may modify their actions. However, at the level of the rules or the law, there is still the opportunity to subvert the goal of medication. In other terms, medication will have its effects on physiology regardless; but medication will not have the required effects on the ethical subject unless these four scenarios

are prepared for, and pre-empted, by those charging themselves with making the child responsible.

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[1] In fact, if the person who cannot control behavior in the face of the passions is demonstrating what the Socratics called *akrasia*, the inability to act in accordance with principle, the opposing case would be *aboulia*: someone who does not act at all. Even calculated principle would cease to motivate, offering the same incentive as any other option.

[2] There is a non-negligible subset of literature devoted to studying how children attribute outcomes to medication, especially those children receiving medication for problems with hyperactivity and inattention: (Amirkhan, 1982; Baxley, Turner, & Greenwold, 1978; Borden & Brown, 1989; Collett & Gimpel, 2004; Linn & Hodge, 1982; Milich, Licht, Murphy, & Pelham, 1989). Unfortunately for the current research, the material studied, even that which is closely-aligned with the scientific research, largely did not cite such material on attributions. As a result, I believe my claims about attribution concerns being axiomatic remain, but this is an area which nonetheless requires further study.

[3] By coincidence, Wender (P. H. Wender, 1995, p. 151) also has this four-fold matrix, what he calls a 'payoff matrix' but in a different context, with an eye to evaluating the worth of medication trial with adults.

[4] This is identical, except for the ADD/Hyperactivity term, to the 1978 edition of the same work. (P. H. Wender & Wender, 1978, p. 62)

[5] In follow-up meetings with his child patients, Diller (1998) talks to them about how they understand their relationship with Ritalin and what it does, and reaffirms that it doesn't force them to act in any particular way, but gives them the ability to think through their actions ahead of time, "in the hope that the child retains his sense of free will and choice about his behaviour" (p. 262). For other examples, see:

> Parents and teachers support chemotherapy because children become more easily controlled, and changes in teaching and child-rearing practices can remain unmodified. Children support and depend on their medicine as they grow to believe that only chemical agents can control their disruptive behaviors. In sum, the indiscriminate use of the psychopharmacological approach may constitute an infringement on the child's rights, especially when it is selected in order to make the child submit to undesirable child rearing or teaching practices, and when it places an undue psychological burden on the children themselves by teaching them that they have no control over their own behaviors. (Brundage-Aguar et al., 1979, p. 56)
>
> The child's attribution of his behavior change to the medication may have deleterious

long-range effects. The child may learn that the only way to control his behavior is to take a pill. (S. G. O'Leary & Pelham, 1979, p. 229)

It is equally important to stress that it is not the medication that does the work; it is the child who should be given credit. (Flick, 1998, p. 79)

What you don't want to do is shame him in any way or make him feel that the pill is the reason for his acceptable, or "good," behavior. Say, for example, that you have just observed your child behaving correctly in an interaction with his sibling. Unless you want to discourage him and make him feel dependent on a pill in order to behave, don't say something like "I'm so proud of you! Boy, am I glad you took your pill so you wouldn't argue with your sister." This would be like taking two steps forward and five steps back. Remember, the goal is to help him recognize that he can now choose to behave effectively, whereas before treatment, he was unable to make that choice. (J. Morris, 1998, p. 137)

Often, when positive changes occur, all of the credit is given to Ritalin. The child's own personal agency is undermined. This becomes problematic, as the child's abilities and strengths are never discovered or appreciated. As a result, the ADHD biological story stays in charge. The child gets the message that she has no agency or ability without the aid of Ritalin. She is a passive subject to a psychostimulant. To counter this effort, I encourage children and families to locate their own agency alongside the medication. (Nylund, 2000, p. 149)

[6] The recreational or performance-enhancing use of Ritalin also belongs to this field. Those who use stimulant medication for such reasons are demonstrating valued behavior but nonetheless are employing medication. The problem here is that they are cheaters - their behavior is not justifiably attributable to the self, yet they are taking credit for it and obtaining reward unjustly.

Chapter 7: Gender

Introduction

In this chapter I look at how the literature under consideration invokes gender. One of the most persistent observations about disorders of inattention and hyperactivity is that prevalence and incidence rates for ADHD are skewed towards boys: "We know very little about the social characteristics of ADHD children and their families apart from one inescapable empirical observation—ADHD is predominantly a disorder of boyhood" (N. Hart, Grand, & Riley, 2006, p. 133). This link with boyhood has prompted scientific investigation, criticism, and advice. I first discuss why it is difficult to explain these rates and detail some potential explanations. I then look at some of the skeptical literature. The behaviours which characterize ADHD parallel stereotypes about masculine, particularly boyhood, behavior. The skeptical literature uses these rates and behaviors in order to draw ADHD into question, but remains unable to explain the discrepancy in a manner different than the existing scientific research.

Leaving aside an answer to the question of why ADHD is diagnosed more frequently in boys, I turn to an observation about how this literature discusses the child diagnosed with ADHD. Because it frequently and intentionally refers to children with ADHD as boys, even when discussing children with ADHD in general, it reaffirms the male ADHD subject as the default, universal category and unwittingly reinforces the marginal status of women and girls with ADHD.

I also take an extended look at how advice and instruction to people living with or caring for those diagnosed with ADHD reaffirm stereotypes about gender. Just as interventions for disorders of inattention and hyperactivity are a form of socialization, aiming to manage behavior to conform with the norms of the classroom, the household, and of childhood behavior, these interventions inadvertently enable the reproduction of gender norms. In this literature the status quo of gender relations is taken as a given, something to be worked within, rather than worked upon.

In contrast to previous chapters, while disorders of inattention and

hyperactivity have prompted interventions aimed at establishing responsible subjects, there are no assertions of the sort that girls must become responsible or exert self-control in ways that are different from boys.

The Puzzle of ADHD, Gender, and Prevalence Rates

Most reports cite a roughly 4:1 boy:girl ratio for prevalence rates of ADHD,[1] and researchers have recognized a gender disparity at least as early as the late 1960s and early 1970s (Safer & Allen, 1976; Stewart & Olds, 1973; J. S. Werry, 1968). We can even see this gender discrepancy in George F. Still's *Lancet* lectures:

> Of the 20 cases five were girls and 15 were boys, a disproportion which, I think, is not altogether accidental; at any rate, it would seem from recorded cases that boys are more frequently affected than are girls. (1902b, p. 1080)

Unfortunately, Still did not elaborate on why he thinks this is 'not altogether accidental'.

While most studies of children diagnosed with ADHD have focused on male populations, in the mid-1980s clinical research called for increased focus on girls with ADHD (Berry, Shaywitz, & Shaywitz, 1985), and began paying increasing attention to gender differences and ADHD in the 1990s, with the U.S. National Institute of Mental Health holding a 'Conference On Sex Differences in ADHD' in 1994 (Arnold, 1996).

A gender discrepancy for any mental disorder is not in itself unusual. "autism, ADHD, dyslexia, and developmental language disorders are all far more common in males. . . . Conversely, depression and anorexia are more common in females" (Rutter, 2001, p. 229). Furthermore, childhood disorders in general are more frequently found in males (Gaub & Carlson, 1997, citing Eme, 1992). Nonetheless, this does not explain just why this is case. Theories for the discrepancy include physiological predisposition, environmental factors, referral bias, and errors produced by measurement devices such as rating scales and the DSM criteria themselves. The reigning consensus is that there are multiple influences on diagnostic rates.[2]

The following is a rough schema of these influences as encountered in the literature under discussion:

1. ADHD has biological foundations which are more likely to occur in boys than girls, or the manifestation of ADHD in boys takes the form it does for physiological reasons. I include in this category both biological generalities on sex differences[3] but also neuroimaging studies (Castellanos et al., 2001, 2000; Rhee, Waldman, Hay, & Levy, 1999; Seidman et al., 1996; Vandenberg, Singer, & Pauls, 1986).
2. The research which developed diagnostic criteria and rating scales has largely focused on boys. Circularly, these criteria capture boys. From this point of view, gender-specific evaluative tools would improve diagnostic accuracy. For example, Yale pediatricians Sally Shaywitz and Bennett Shaywitz have developed the Yale Children's Inventory, a screening tool for children with attention and learning disorders, arguing that separate referents for normal behavior are necessary for boys and girls, an argument repeated elsewhere.[4]
3. Whatever the cause of behaviours, boys are currently more likely than girls to act in ways which conflict with changing institutional demands and thus will demonstrate behaviours managed via a diagnosis of ADHD. To put this another way, behaviours found more frequently in boys than girls are not socially successful in contemporary circumstances such as schooling.[5]
4. Referral bias occurs. Boys are more visibly disruptive, more likely to demonstrate hyperactivity and impulsivity, and are therefore more likely to receive attention from family and teachers and thus obtain a referral for diagnosis (Barkley, 1990; Biederman et al., 2005; Cantwell, 1996; DuPaul & Stoner, 2003; C. A. Everett & Everett, 1999; Wolraich, Hannah, Pinnock, Baumgartel, & Brown, 1996).

This last hypothesis, that this inattentive characteristic is what leads to disproportionate or missed diagnosis and treatment, is particularly prevalent.[6] The DSM-IV-TR distinguishes three subtypes of ADHD: ADHD Inattentive type,

ADHD Hyperactive-Impulsive type, and ADHD Combined type. Whereas the Hyperactive-Impulsive type is aggressive, or active, the Inattentive type is withdrawn, distracted, and preoccupied. There is some evidence that proportionally more girls are diagnosed with the Inattentive subtype than the Hyperactive-Impulsive subtype (Biederman et al., 2002). Gershon (2002) and Gaub & Carlson (1997) conducted reviews of the gender differences of ADHD behaviours and symptoms, including academic performance, hyperactivity, inattention, and externalizing behaviours. They have found that girls with ADHD are less likely to demonstrate hyperactivity and externalizing behavior and more likely to be characterized by inattentiveness, but are more tentative on positing subtype distributions due to the lack of available data.

None of these explanations purport to be exhaustive, and they clearly overdetermine each other. For example, even if ADHD behaviours are reducible to a biological state, then some institutions will be more compatible with a particular set of behaviours which stem from those sex differences, and signs of ADHD will vary with context.[7] Is ADHD then caused by circumstances incompatible with behavior or is it caused by biology? To take another approach, if rating scales warrant modification, is it on the presumption that ADHD is surely equally present in men and women but this is obscured because the disorder takes different forms based on sex or gender? Alternatively, is it that impairment is distributed equally but the cause is attributed more frequently to ADHD in boys? An explanation which points to subtype distributions is in danger of begging the question, because ADHD-Hyperactive-Impulsive Type and ADHD-Inattentive Type are not exclusively populated by boys and girls respectively. Why are girls more likely to fit an ADHD-Inattentive subtype? If girls are underdiagnosed because they are less disruptive and more inattentive, is this because of biology or socialization or something else?

I do not aim to resolve any of these questions, as ongoing research already is looking into them. The point is to show that there is no simple answer to the question ‘why is ADHD diagnosed more often in boys’? An answer depends on the level of explanation one is after, on one’s ontological understanding of

ADHD, whether it is a set of descriptive criteria, or whether it is a biological function, whether it is fundamentally a form of impairment or subjective experience, and so forth.

Medicalizing Boys and Boyhood

The literature refers to much of the research discussed above in descriptions of typical girls with ADHD as inattentive and withdrawn, in contrast to the stereotypical hyperactive boy, who is outwardly and physically disruptive. Girls with disorders of hyperactivity and inattention "more often than not can be girls who come across as unmotivated, distracted and forgetful, prone to losing things" (Cooper & O'Regan, 2001, p. 61); the ADHD girl in a classroom "will be chronically disorganised, a poor speller, shy, confused, and often ignored by peers. However, because some girls also have 'hyperactive' brains rather than overactive bodies, some may also be overly talkative, in ways that actually disturb others" (Cooper & Ideus, 1996, p. 77). Furthermore, "Hyperactive girls tend to have more difficulties with mood swings and emotional outbursts and tend to be less aggressive than hyperactive boys" (Kewley, 2005, p. 17). Boys diagnosed with ADHD are more likely to demonstrate such behaviours as aggressiveness, conduct problems, acting out, rule breaking, and being uncontrolled and aggressive (Berry et al., 1985). These descriptions persist throughout the literature.[8]

The general public is generally cognizant of ADHD being more commonly diagnosed in boys (Quinn & Wigal, 2004), and the ambiguity around gendered diagnostic rates and the similarity of these descriptions with stereotypes of boyhood behavior sometimes results in an argument that ADHD is 'medicalizing boyhood'. Diagnostic rates and prescription rates prompted The Globe & Mail's *Are we medicating a disorder or treating boyhood as a disease?* discussing the rates of prescriptions written for boys in Canada.

> The decline of male teachers in primary schools, Prof. Bradley suspects, is partly to blame for ballooning drug use—"What are we drugging? Female teachers who don't understand boys like to run and jump and shout—that's what boys do." (Abraham, 2010)

From this perspective, ADHD symptoms are expressions, possibly normal ones, of boyhood, rather than pathological behavior. The emphasis on seeing something unassailable about 'boy behavior' leads to a critique of the circumstances in which these supposedly intractable behaviours do not lead to successful outcomes. Elaborate variants on this perspective are found in the work of three authors who have advocated alternative explanations for ADHD: UK child and adolescent psychiatrist and vocal ADHD critic Sami Timimi, in his book *Naughty Boys* (Timimi, 2005); American psychologist Thomas Armstrong who has written popular books on ADHD including *The myth of the A.D.D. child* (1997); and author, radio host, and former psychotherapist Thom Hartmann's *The Edison gene* and *ADD: A different perception* (2003). Each of these uses the discrepancy to draw the legitimacy of a biomedical perspective into question. The gender discrepancy is less a scientific puzzle to be solved and more evidence for a generalized skepticism against the disorder itself. They don't suggest that ADHD is a hoax, or that in the aggregate boys diagnosed with ADHD don't demonstrate patterns of behavior which are distinct from those girls do. Nor do they reject behavioural problems or treatment for them, arguing that something must be done for these children. They do lament the authority medicine has to intervene in and interfere with children's lives. Citing a dearth of alternative interpretations of ADHD, ones unconstrained by what is perceived as a narrow medical view they employ gender to open up alternative ways to talk about ADHD. However, their idiosyncratic approach makes it difficult to evaluate how to interpret ADHD and boys and girls.

Armstrong posits a 'myth of ADD', "a certain set of beliefs offered up as basic truths about why some children won't behave or pay attention" (1997, p. 4). For Armstrong, it's not that this myth is wrong,

> the problem, rather, lies in the fact that it omits, or gives scant attention to, the broader social, political, economic, psychological, and educational issues that have surrounded this term [A.D.D.]—and others like it—from its inception. (Armstrong, 1997, pp. 5–6)

Hartmann (1997, 2003) also takes this contextual view, arguing that ADHD is

not pathological but a mismatch between the brains of those diagnosed with ADHD and current classroom demands. Hartmann popularized this as the 'hunter vs. farmer' theory of ADHD where those with ADHD have a brain adapted through evolutionary pressure to the demands of hunting, which require a general receptivity to stimuli rather than narrow focus, as well as an ability to react quickly to immediate demands. The reliance on medication distracts one from addressing the failure of schools to accommodate this neurological variation.

Timimi says "the meaning of this gender distribution never seems to be questioned" (Timimi, 2002, p. 88) and goes on to offer alternative explanations for why this is the case. Timimi critiques capital and "Western" lifestyles and values, arguing that the perceptions and valuations of childhood and childhood behavior vary across cultures, and that Western cultures relate to children, particularly to boys, in suboptimal ways. So too does Hartmann, arguing that in Western culture boys are encouraged act outwardly and be assertive, that they get attention for doing things in schools, for good or bad, and that their genes manifest themselves in outward behavior. Girls, however, are taught that such behaviours as wriggling, interrupting, and moving about are unladylike and thus control themselves. Since they can't satisfy their need for stimulation outwardly, they turn inwardly to the mind, and thus will appear to an observer as ADHD-inattentive. Both advocate taking lessons from non-Western cultures.

For his part, Armstrong aims to augment the reductive myth of ADHD with complementary perspectives, including a 'gender differences perspective' which asserts that the gender ratio of ADHD diagnoses is a function of "*normal gender differences*" (Armstrong, 1999, p. 42). The demands of contemporary elementary school classrooms suit girls' dispositions, and thus the normal behavior of boys appears deviant. He cites Diane McGuinness (1989) on this point:

> Former Stanford researcher Diane McGuinness suggests that many of the features typically attributed to hyperactivity in children can in fact be accounted for by *normal differences* between boys and girls. . . .
>
> Essentially, then, some boys may be at risk to be identified as hyperactive or A.D.D. simply because their gender-appropriate activities clash with the

> expectations of a highly verbal, highly-schedule oriented, and usually female-dominated classroom environment. (Armstrong, 1997, pp. 31–32)

What to make of this skepticism? Given the observation that ADHD diagnoses capture more boys than girls, whether 'accurately' or not, it seems a relatively straightforward question whether those people share distinctive experiences of impairment. The question as to the meaning of the resultant gender distribution of this group is precisely what motivates the existing research discussed earlier: whether there is observer bias on the part of parents, teachers, and physicians; whether different forms of referral consistently capture the same individuals or not; how circumstances result in diagnostic rates; and whether diagnostic criteria should be refined in accordance with observations of harm and symptom clustering. To follow up on such criticisms is simply to participate within the scientific enterprise.

The assertion that 'boys with ADHD are exhibiting normal boyhood behavior' does not point to any kind of conclusion: should we take it to mean that the behavior is not abnormal in the statistical sense; or that the behavior does not deserve sanction; or that the behavior is reasonable to expect, but still should be addressed when disruptive? Furthermore, if boys are predisposed to these behaviours for 'natural' reasons, it does not explain why all boys do not receive a diagnosis, which simply returns us to the task of the work which is already occurring on why boys are disproportionately represented in prevalence rates. The possible questions multiply: Does this mean that ADHD is not impairing when we let boys be boys or does it mean that ADHD is impairing when boys are themselves? Such skepticism also posits such a thing as 'boyhood' which should not be interfered with, whether medically or otherwise, but such a thing as 'boyhood' may be impossibly difficult to define. In one anecdote of 'boys being boys' being a solution for the child with ADHD:

> One of my sons had a wonderful elementary school teacher who had four sons of her own. She seemed to have an expectation that boys will be unruly and even get in little pushing fights now and then. None of this bothered her. She was able to ignore much of this. As a result there was essentially no tension in her

> classroom. My son loved her. Everyone loved her. (Weingartner, 1999, pp. 16–17)

Whether the ability to ignore unruly behavior and 'little pushing fights' is desirable, the majority of the literature does not take a skeptical route. It advises the reader to prepare one's self against seeing the disorder as simply boys being boys. From this point of view, attributing these behaviours to 'boyhood' is seen as an excuse or obstacle to obtaining adequate treatment.

> Much of the advice [given to parents by acquaintances] will be about consistency and stronger punishment. Some will be about finding alternate ways for the child to express himself, and some of it will be about the fact that he's just "all boy" and parents are overreacting to his normal development. (Beugin, 1990, p. 70)

Detailing some challenges which parents may face, including from physicians:

> 1. *"The child is 'all boy' and will outgrow it. His dad had the same thing, and he did alright."*
>
> *Comment:* This "all boy" business is a cop-out. These children are not just cute little Tom Sawyers and Huck Finns messing around. They have serious attentional and activity control problems that interfere with coping in many areas of their lives—social, academic, and family. . . .
>
> Since ADHD, and reading problems, for that matter, do run in families, there may very well he a resemblance to dad or uncle John. That, however, does not lessen the significance of the child's problems. Are we so sure dad turned out alright? (R. B. Johnston, 1991, p. 120)
>
> Frequently, these students are males whose pediatricians refer to them as "all boy" when asked by parents if these children are hyperactive. Recently I evaluated a fourth-grade male who had attention deficit difficulties with hyperactivity. Philip had been extremely active and difficult from birth, and his teachers commented on his high activity level. The parents had repeatedly questioned the child's doctor and had been reassured that their son was simply "a typical little boy." (Moss & Dunlap, 1990, p. 56)
>
> Teachers and parents may simply say something like "He's all boy," as an excuse for a young boy's aggressiveness, impulsivity, or hyperactivity or, "She's just

> bored with the curriculum," as an excuse for a young girl's incomplete assignments, disorganization, or underachievement. (Franklin & Bender, 1997, p. 230)
>
> Some physicians will frequently diagnose the STNR child to be a normal, active, "all boy" type who will outgrow any minor problems if "the women in his life will just get off his back." This misdiagnosis is certainly unfair to the mothers and teachers, for they will feel guilty and frustrated. It is even more unfair to the children, however, for they will then receive no help at all for their STNR problems. (O'Dell & Cook, 1997, p. 29)
>
> Ironically, [physicians] may even point out the advantages of having a child with high activity levels, praising the problem child as "high-spirited" or "all boy." (C. A. Everett & Everett, 1999, p. 134)

Writing About Gender: 'He' May Be Hyperactive

One of the emerging subgenres of popular ADHD literature is work directed towards girls and women and this has been spearheaded by a handful of writers (Quinn, 2009; Quinn & Nadeau, 2002a, 2002b; Quinn, Nadeau, & Littman, 2000; Ratey, Miller, & Nadeau, 1995). Even outside this more recent specialization, gender has been in play in work on ADHD throughout the literature under consideration. Often ADHD literature includes chapters or sections providing additional advice, techniques, or considerations for girls and women with ADHD (C. B. Jones, 2003; Rief, 2003), and some target fathers and sons explicitly (Jacobs, 1998; Kilcarr & Quinn, 1997).

Nonetheless, the majority of the literature on ADHD largely advocates its interventions for children and adults with ADHD in gender-neutral terms. Directed at children and adults with ADHD, they do not indicate that what they prescribe or describe is restricted to boys and men. However, these works subtly but persistently conflate people with ADHD and males with ADHD. One subtle example of this is how writers discussing hyperkinetic or hyperactive children slide between talking about children and talking about boys. Much of the literature states that most children with inattention/hyperactivity disorders are boys, which is fairly uncontroversial, and then assumes 'the child with an

inattention/hyperactivity disorder' is male. For example, an author may purport to be talking about children, but interchanges gender-neutral pronouns and masculine pronouns. This occurs even in cases where the referent of 'children' is not specific boys, as in some clinical studies, but of the abstract 'ADHD child', assumed to be a boy:

> [The behavior of normal children] differs from the hyperkinetic child or adolescent, whose activity is not productive, who does not sustain attention, nor complete a game or task. He is too often distractible to learn the desired activity. (Renshaw, 1974, p. 14)

This subtle slippage between the universal 'child' and the universal 'boy' reflects a broader convention in writing, reflecting a male norm gender bias, rather than demonstrating a deeply held assumption about the inattentive/hyperactive child's gender. However, it also reiterates assumptions about the ADHD child's gender, and persists throughout the literature.[9] Some more recent works employ both masculine and feminine pronouns,[10] but others will justify the use of universal 'he' on the grounds of convenience,[11] or justify it on the greater proportion of boys diagnosed with the disorder.[12] Some recent authors demonstrate awareness of this bias in their vocabulary, only to replay it:

> the pronoun *he* will generally be used in this book to refer to individual LD/ADD students. No gender bias is intended; this usage merely reflects reality and avoids the cumbersome *he/she*. (Stevens, 1997, p. x)

It is precisely this casual unreflective equation of 'the ADHD child' with 'the ADHD boy' which is problematic. It is not enough to say that most students with ADHD are male, but to go further and say that the generalized use of male pronouns reflects reality. How does it reflect reality when there are girls with ADHD? We might think about the same phenomenon in other contexts, where all engineers are referred to as male, or all nurses are referred to as female, and whether this 'reflects reality'. The false convenience of this usage in the ADHD case returns women to the exceptional category; these attempts to bring them within discussions of ADHD reinscribe their marginal status. Furthermore, it makes it difficult to evaluate claims about 'the ADHD child'. When a work

discusses ‘inattentive/hyperactive children’ is that synonymous with ‘inattentive/hyperactive boys’? This is compounded by the presence of sections of books devoted to special considerations for girls with ADHD, but no equivalent sections devoted to boys. For example, a manual for teachers has a list of “additional gimmicks for girls [with ADHD]” (C. B. Jones, 2003, p. 154), yet many of those ‘gimmicks’ are listed elsewhere in the same manual and elsewhere as interventions for all children with ADHD. ADHD in boys remains the default category, whereas for girls it requires specialized interventions, but it is not clear why.

If the ‘ADHD subject’ vacillates between ‘the boy’ and ‘the child’ then it is difficult to determine whether interventions have ‘the boy’ or ‘the child’ in mind. When talking about ‘the ADHD child’, it is not clear if this literature refers the reader to a universal child, whether it speaks about ‘the ADHD boy’ as universal ADHD subject. In this context, *boys with a disorder of inattention/hyperactivity* is the universal, unmarked category, whereas *girls with a disorder of inattention/hyperactivity* is the marked category (Chandler, 2002). The attempt to avoid overlooking girls and women with ADHD unwittingly complicates their incorporation into ways of writing about ADHD. For the overwhelming part, ‘Boys and men with ADHD’ is the universal, unmarked category, and women and girls with ADHD remain the exceptional category. Because the particular ‘boy’ is often taken as the universal ‘child’, it is difficult to say whether assertions that ‘ADHD is normal childhood behavior’ is directed towards all children or has ‘the ADHD boy’ in particular in mind.

Gender Norms: Birthdays, Jobs, Sports

Treatments for ADHD offer a space for the reproduction of gender-based norms. The interventions for children diagnosed with ADHD constitute another mechanism for gender socialization. However, this is not a stated goal of any treatment for ADHD; it is not presented as therapeutic, operating instead without reflection. In the cases I will now discuss, interventions legitimize the reproduction of gender norms, not as the explicit point of the intervention, but as an effect thereof nonetheless.

Consider the following, seemingly trivial, example: in the 1970s, Ben Feingold, an American pediatric allergist, popularized his theory that food additives and salicylates were the cause for Hyperactive/Learning-Disordered (H-LD) behaviours, proposing dietary treatment, which continues to be commonly advised as an alternative approach. As part of his efforts he wrote *Why your child is hyperactive* (1975) and *The Feingold cookbook for hyperactive children* (1979) with Helene Feingold, advocating the 'Feingold diet'. In *Why your child is hyperactive* his wife Helene provides time-saving and money-saving tips for food preparation:

> For the H-LD girl, bake an angel food or other white cake. Decorate with white icing. Place a small glass in the center of the cake in the hole made by the tube; fill it with a small bouquet of garden flowers. Petals can be placed on the cake itself. Colorful and different for any party!
>
> For a boy's H-LD birthday, use lemon, pure caramel or "home" chocolate icing; decorate the sides with small paper animals for each slice. Avoid plastic animals. (B. F. Feingold, 1975, p. 180)

This advice reflects conventions of gender, food and children's birthdays, none of which are alarming or unexpected. In this simple case it is obvious that the alteration of food is germane to Feingold's intervention and the placement of a bouquet of flowers secondary or contingent. However, I then ask why these secondary characteristics ('decorate with small paper animals') are even included. Feingold was not writing with a critical eye towards gender, so the point is not to fault the lack of such a critical eye. To understand the inadvertent consequences of what what we do does, in Foucault's terms, Feingold's framing of this situation reproduces a particular understanding and approach to gender, food, and children's birthdays. When the excerpt appears in a book aimed at intervening in the life of the H-LD child, it is not clear how to distinguish which components of the intervention have to do with treating specific behaviours and which reflect common sense assumptions. Whatever Feingold's intentions, it implies that participation with those norms is not simply a function of children's birthdays in general, but is a function of a hyperactive/inattentive child's birthday. Feingold

says this himself when he says this is for ‘a boy’s H-LD birthday’. It is the difference between making white cake for girls because that is the unsaid norm, and making white cake for girls ‘because of their hyperactivity’. Even if someone were to follow these instructions, and ‘think nothing of it’, to make a white cake for girls because they would have done so anyway, the unnecessary inclusion of such details supports the reproduction of social norms, rather than being neutral or critical. In a similar vein, in June Roth’s *Cooking for your hyperactive child*, following an ADHD diet can be a return to domesticity: “I have the feeling that many mothers forced to get away from prepared and convenience foods will rediscover the pleasures of creating in the kitchen” (Krischer, in the foreword to Roth, 1977, p. x). This extends the breadth which interventions take, applying them not only to the child with the diagnosis but a family which might change for the better. One might object that the point is to provide a normal home life for children who suffer social problems and deficient self-esteem. This is clearly the case. Children with ADHD are to be made normal children. It is the diagnosis, not the general status as child, which provides the motivation for intervening and legitimizes specific interventions. Such children and their families are not simply to be relieved of a isolated physiological dysfunction such as excessive movement, leaving the socialization to another sphere, but to restructure their lives in response to their diagnosis.

A more recent example of recasting ADHD and the performance of gender norms comes from a classroom consultant discussing children with developmental problems she has worked with:

> The boys are often good at drawing, fixing things, and working with lumber, pipe, or clay. This means they make good sculptors, mechanics, automotive designers, architects, plumbers and engineers. The girls often have an unusual talent for working with fabrics and yarns. They have a good eye for color and a great flair for design and style. Their skills equip them to be fashion designers, interior decorators, and graphic artists. Even from a very young age, LD/ADD females take great pleasure in arts and crafts. (Stevens, 1997, pp. 23–24)

Under the auspices of concern for the child diagnosed with ADHD, this

encourages the reader to see boys and girls with ADHD as disposed to stereotypically suitable professions. When boys demonstrate manual dexterity, they presage their careers as engineers or sculptors. When girls demonstrate the same, it anticipates a future as fashion designers or interior decorators. The norm 'girls make good fashion designers' and 'boys make good engineers' here ceases to be a stereotypical consequence of girlhood and boyhood alone. To accord with stereotypical gender occupational expectations is now the saving grace of a learning disorder or attention/hyperactivity disorder. This is more than simply restoring a normal life for a boy or girl relieved of, or dealing with, the impairments of ADHD. To live out occupational expectations is evidence of the good which comes of an ADHD girlhood or an ADHD boyhood.

As with birthday parties and physical and pretend play, sports also become a place for reinforcing gender norms in the lives of those diagnosed. Physical activity is one of the many recommendations for those diagnosed with ADHD, often recommended for the acquisition of control over the body. It also intersects with the assertion that sporting participation is particularly consequential for boys. Lack of coordination will negatively impair self-image and peer relationships for boys. To be a boy is to be good at sports, or rather, to be bad at sports will harm boys more negatively, and thus the boy should acquire skills in sports:

> Sports and games play a vital role in children's assessments of themselves, especially for boys, making life inordinately difficult for those children who are poorly co-ordinated and for those whose impulsivity and impatience work against them. (Stewart & Olds, 1973, p. 82)

In *Stopping hyperactivity: A new solution* (O'Dell & Cook, 1997), an alternative approach devoted to physical manipulation of the body in order to overcome hyperactivity, the singular mention of gender is in the discussion of sports:

> In American society, participation in sports is almost mandatory for boys. Society's demands are essentially met if a boy participates in sports, even if he doesn't excel in them. Whether that is the way it should be or not, that is the way it is. While the social demand for participation in sports is not so strong for girls,

> support and praise are increasing for girls who are successful in sports. (p. 95)

This participation issue is not limited to alternative treatments. Paul Wender refers to sport as a problem for boys on several occasions:

> When coordination problems are present, they usually cause more difficulties for boys than for girls because for boys athletic ability is an important source of acceptance by others. (P. H. Wender, 2000, p. 24)
>
> If the child is a boy and has coordination problems, the social problem will be worse. If he is chosen eighteenth when baseball teams are chosen, he will think little of himself. (P. H. Wender, 2000, p. 48)
>
> The coordination difficulties from which many ADHD children suffer are frequently embarrassing or humiliating, particularly for boys. To be chosen last when teams are being picked and to be ridiculed for athletic inadequacy are blows to the ADHD boy's already shaky sense of self-esteem. (P. H. Wender, 2000, pp. 132–133)[13]

It also leads to advocating participation in martial arts, which is not uncommon for those with ADHD in general, though this is complicated by the fact that 'ADHD in general' is also 'ADHD for boys'.

> Perhaps participation in an organized training sequence that builds skills [such as martial arts] may lead to increased self-confidence—particularly for boys, who are apt to ascribe self-worth to physical competence and an ability to "take care of themselves." (Wodrich, 1994, p. 239)
>
> Karate or tae kwon do are also good activities for the ADHD child; even though he may not do as well as the non-ADHD child, he can acquire skills that give him the novel feeling of being a "big man," a feeling that often considerably bolsters his self-esteem. Soccer, volleyball, and ballet would be good choices for the girl with ADHD. (P. H. Wender, 2000, p. 133)

There is no discussion of why these particular sports are good choices for girls or boys specifically. Note also the reiteration of 'boys' as the universal category: it contrasts sports for the 'ADHD child' with sports for the girl with ADHD.

Gender Norms: Families, Work

Much as how girls with ADHD have received attention for having been an overlooked group, more recently too have adults with ADHD, and adult women with ADHD. Much of this literature is meant to reassure the reader and provide helpful advice. The major concern for which the reader receives sympathy and advice are the expectations that women will be responsible for unpaid labour and child-rearing, responsibilities further complicated by the presence of ADHD:

> The organizational needs of womanhood—including career, marriage and child rearing—create a series of monumental tasks. Because social expectations of women differ from those of men, women and men often face slightly different challenges in dealing with their AD/RD (Nadeau, Littman and Quinn 1999; Nadeau and Quinn 2002; Quinn 1997). (Safran, 2002, p. 143)

> ADD can have a very profound impact on women, perhaps even greater than its effect on men, because many times women are the caregivers to children and others. Despite our "liberated" culture today, in many instances the liberation is more like a hectic rat race, with women working 9 to 5, picking the kids up at the daycare center on the way home from work, rushing to fix dinner, helping with home work, and so on. All of these "must-dos," taken together, present a daunting series of tasks even for the average person. Add in the factor of ADD, and many women can definitely feel a "systems overload." (Sudderth & Kandel, 1997, pp. 161–162)

> Particular attention must be paid to detecting and addressing the underlying shame of women with LD/ADHD. Many feel burdened by cultural expectations that they will manage not only the organizational demands of their own individual lives, but those husbands of their and children as well. (Roffman, 2000, pp. 60–61)

> Women in particular feel handicapped by organizational difficulties, as they experience societal pressure to run a household efficiently and to be the overall general manager of family life. (Roffman, 2000, p. 146)

As the major concern it is also the site wherein the reader is provided with advice on how to navigate this complication. This framing of women with ADHD

as particularly susceptible to stresses with unpaid labour in the home appears in other works. In Ratey and Johnson's *Shadow Syndromes* (1998):

> People with no attentional problems can weather [children who interrupt and are unpredictable]. . . . But the ADD mother is going to find herself continually, ongoingly, chronically not remembering what she was doing, where she was going, what she was thinking. (p. 193)

Women with ADHD may be more likely to have concerns about child rearing than men to the extent they are more likely to have that responsibility, but it is not clear what use the specificity of such chapters are. All people with ADHD are likely to experience 'difficulty in managing their roles and responsibilities' in the situations they frequently encounter. Yet we do not see chapters devoted to how men may handle distraction in the workplace as a concern specific to men. 'Dealing with workplace distractions' is presented under the auspices of a general concern for adults with ADHD. Wender affirms "For women without employment outside the home, a good indicator of ADHD is difficulty in managing their roles and responsibilities as housewives and mothers" (P. H. Wender, 1995, p. 137). Since the DSM criteria specify impairment in 'at least two circumstances' and 'clear evidence of interference with developmentally appropriate social, academic, or occupational functioning' then we could simply replace Wender's comment with 'for people without employment outside the home, a good indicator of ADHD is difficulty in managing their roles and responsibilities as stay-at-home spouses and parents'.

Consider also the following extended example: American physicians David Sudderth and Joseph B. Kandel wrote *Adult ADD—The complete handbook: Everything you need to know about how to cope and live well with ADD/ADHD* (1997) with a chapter specifically for women. In this chapter they discuss stressors new spouses may encounter when a wife is living with an ADHD diagnosis. Because those with ADHD have trouble being organized, one stressor is exposure to the accumulation of the wife's 'stuff'. Why does this appear in a chapter for women? They say:

> If *he* had piles everywhere, they might be annoying to the non-ADD wife, but

> men do stuff like that, don't they? Women are supposed to be neat, and if they aren't, well, maybe they're not so feminine after all. The stereotyping is endless. (Sudderth & Kandel, 1997, p. 169)

In a similar fashion, they also say women with ADHD will also experience guilt over housecleaning.

> Why is this a *woman* problem? Don't men have to clean too? Sure. They just don't feel guilty about it if they don't. One solution: do the best you can and just accept that as good enough. Are you June Cleaver from "Leave It to Beaver"? Is anyone? On the other hand, you don't want your house condemned by the Public Health Department. Find a happy medium. (Sudderth & Kandel, 1997, p. 165)

Thus the authors' response to this division of labour is to suggest that the husband[14] could be more understanding, but they more strongly recommend that the wife lower her standards for herself.

In recognizing this double bind, the authors miss two problems: first, for someone's disorganization to contribute to a diagnosis of ADHD, it must be abnormal and impairing, and thus would not be reducible to 'normal male mess'. Second, Sudderth and Kandel admit the existence of the stereotype, of the misplaced expectation, but then treat it as a given, not something to be critiqued or changed. Their solution is not to alter gender norms so that men do feel a sense of responsibility, or so that housecleaning is not by default women's labour. They reaffirm norms about cleaning and messiness ('men are slovenly, they don't feel guilty about it, and this is normal') and then, instead of critiquing the norm, provide individual solutions so that the wife may cope. The response is not to transform the structure of the household so that more equitable distribution of labour occurs, but to find coping mechanisms, or to do 'good enough'. It may very well be true that men do not feel guilty, or that women do, when it comes to housework, but in any case the individualist approach to the problem does not direct the reader toward questioning that state of affairs. It asks the reader to see the problems of ADHD as individual problems with individual solutions, and to see the relevant norms as immutable. What would happen, if one were to follow this line of thinking, would be to precisely reduce ADHD-clutter to 'male clutter',

relieving the husband of any obligation to clean.

The literature fails to distinguish clearly between ‘universal’ interventions and interventions for males. The problem is not that men are ignored and that this is unjust, the problem is that men are the default category. When someone says ‘the ADHD person’ they may mean ‘the man with ADHD’, or they may mean ‘any person with ADHD’. But then we are left with problematic questions: Are ostensibly gender-neutral interventions, supposedly for the abstract ADHD subject, for the ADHD male or for men *and* women with ADHD? If girls’ circumstances require specific interventions, are these to replace regular interventions or to complement them? Why, when faced with a boy with ADHD, are gender-neutral interventions adequate? The problem remains: which interventions are universal and which have anything to do with gender considerations? Marking ‘women with ADHD’ as an exceptional category uncritically reinforces ‘males with ADHD’ as the default, universal category.

Conclusion

ADHD interventions are a site within which this literature does not reflect on gender norms. To the extent it recognizes those norms it takes them as given and immutable. It prescribes individual responses and does not seek to transform or resist norms, even when disorder is a consequence of those norms themselves. In doing so, these interventions reiterate common-sense ideas about gender.

It is doubtful that disorders of inattention and hyperactivity are an exceptional case. People reinforce the norms governing behavior in common-sense, everyday situations; there is no ‘gender sphere’ to which people retreat and reproduce such norms other than daily life. My contribution is not that ADHD is exceptional but that ADHD is not exempt, confirming one route of norm reproduction.

If ADHD serves as a justification or technique, a means, by which institutions socialize children, then we may ask to what extent it permits the socialization of gender as well. If it is difficult to separate tasks specific to ADHD-children from tasks specific to childrearing, then it is equally if not more so difficult to separate gendered childrearing practices from gendered ADHD-treating practices.

As a general proposal for future work in this vein, we might ask women and

men, boys and girls, how their experience of gender interacts with their experiences of ADHD. It may be that audience reception of these interventions sees them critically, or with much reflection; or it may be that they persist subconsciously. We might also continue to study the determining factor which norms play in disorder, and the extent to which, when norms are changed, so too do diagnoses and experiences of disorder.

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[1] Buitelaar's (2002) summary of research literature found questionnaire-based studies indicating gender ratios ranging from 1.5:1 to 5.8:1, and interview-based studies indicating gender ratios ranging between 1.8:1 and 4:1.

[2] See Heptinstall & Taylor (2002) for an excellent summary.

[3] See:

> The approximate 3-4:1 male-female ratio is also characteristic of a number of other disorders of childhood, such as reading disability, behavior deviance, and delayed speech development. These developmental differences between the sexes are not the result of social factors, but rather reflect in these respects (at least) the biological superiority of women. (Safer & Allen, 1976, p. 32)

On this last point they cite *The Natural Superiority of Women* (Montagu, 1954).

Among other explanations, Crook (1977) suggests that the reason could be

> Probably because females are biologically stronger and less prone to illnesses and health problems of almost every kind. Then, females mature more rapidly than males. So the average first grade girl is 6 to 9 months more mature than a boy of the same age. (p. 34)

See footnote 5 for another explanation from Crook as well.

[4] See:

> These data indicate the importance of using gender specific normative values in assessing childhood behaviors. As perceived by their parents, normal boys are more active, more inattentive, more impulsive, more difficult to manage, and have more problems with fine motor skills than girls of the same age. Therefore, it is critical that clinicians and educators as well as parents first develop an appreciation that there are differences between normal boys and girls in these areas; and second, not single out as deviant boys who are exhibiting behaviors that are within the normal range for their gender (although at a higher level than expected for girls). Boys should not be expected to conform to that level of behavior characterizing normal girls or some hypothetical range in between that

of boys and girls. (S. E. Shaywitz, Holahan, Marchione, Sadler, & Shaywitz, 1992, p. 54)

> The failure to take into account significant gender differences in behavior may result in the overidentification of boys as learning disabled and in the underidentification of girls. . . . both parents and teachers, who believe that increased activity levels or fine motor problems characterize children with learning disabilities, may tend to select normal boys who are exhibiting age- and gender-appropriate levels of activity or fine motor performance as at risk for learning disabilities. Conversely girls who are normally not as active or who may have neater handwriting may not be considered to be at risk for a learning disability, although their academic skills may not be progressing. (S. E. Shaywitz et al., 1992, pp. 57–58)

> Indeed, it has historically been overactive boys, showing persistent anti-social or aggressive behaviours and academic difficulties, who have been studied most, and who are most likely to have received the diagnosis. Because such boys often made trouble for themselves and others, they typically form the basis of popular beliefs and stereotypes about the condition. . . .
>
> . . . with the shift in defining the central underlying feature away from hyperactivity to impulsivity and inattention, research is showing now that females are likely to suffer from AD/HD to a similar extent as males. (Cooper & Ideus, 1996, p. 76)

> The fact that boys are still diagnosed with ADHD much more frequently than girls may mean that scales designed to identify ADHD boys do not detect girls with ADHD. In fact, when separate norms are used for boys and girls, ADHD shows up equally as often in girls as in boys. And when adolescents rate their own problems with attention, males and females report problems with equal frequency. (Ingersoll, 1998, p. 18)

> Girls, as a group, exhibit a base level of inattention and hyperactivity lower than boys on many parent and teacher rating scales. This has been of concern, and the suggestion has been made that additional or modified gender-based criteria be used. (Resnick, 2000, p. 18)

[5] This argument is in Armstrong (1997, 1999), as well as others, for example:

> Finally, there may be great cultural pressures on boys to succeed. As a result, it's harder for a boy to live up to the expectations of parents and teachers. (Crook, 1977, p. 34)

> Historically, rigidly defined sex roles structured the family, school and life experiences of males and females very differently (boys were expected to achieve in school and career, girls were not widely educated or expected to achieve in school or career)—thus,

academic, emotional and behavioural difficulties of girls were more likely seen as an individual rather than a social problem. (Cooper & Ideus, 1996, p. 24)

[6] Girls are less likely to receive a diagnosis because inattention is not disruptive to others:

> Girls with ADD may be well-behaved, and therefor less likely [than boys] to come to the attention of school personnel even though their school performance may suffer significantly. (Coleman, 1988, p. 4)
>
> In the past, females were less likely than males were to be diagnosed with attention deficit, because the females tended to be quieter, less active, and less disruptive in the classroom - today those stereotypical behavior patterns are changing. (Moss & Dunlap, 1990, pp. 2–3)
>
> Especially likely to be missed are those children whose problems are attentional without excess movement. As mentioned before, many of these are girls, and though they may have problems with their learning, with their peers and with their self-concept as serious as those of the more active ADD child, they are not often diagnosed. (Beugin, 1990, p. 49)
>
> No one knows exactly why, but ADD seems to affect more males than females. Some have suggested that females have been under-identified because they are more likely to have the inattentive type of ADD without the disruptive behavior, which tends to go unnoticed more by parents and teachers. This may be partially true, but most professionals agree that ADD still remains a predominantly male disorder. (K. R. Murphy & Levert, 1995, p. 17)
>
> Externalising AD/HD behaviours of boys are more socially disruptive, disturbing and threatening than the internalising problems more common in girls. (Cooper & Ideus, 1996, p. 24)
>
> There are, of course, selective issues here, in that males more commonly display the hyperactive and impulsive symptoms related to behavioral disturbances and conduct disorders. Thus, these males tend to be referred more frequently for clinical services (Cantwell, 1994, 1996; Wolraich et al, 1996). (C. A. Everett & Everett, 1999, pp. 22–23)
>
> The higher ratio of boys to girls seen in clinical surveys probably reflects referral bias. Boys are more likely than girls to express their frustration by being aggressive or antisocial. These behaviors are the most disruptive and thus result in a referral for clinical services.
>
> Previous data suggest that girls are underidentified. Despite having attentional problems

> similar to those of boys with ADHD, girls with ADHD are less intrusive and show fewer aggressive symptoms; thus, they are less likely to come to the attention of their teachers or other professionals. The group of students most often not recognized, referred, or given the diagnosis of ADHD may be girls who are only distractible. (Silver, 2004, p. 4)

[7] While the DSM-IV criteria specify that the symptoms must be pervasive, that is, present in two or more circumstances, the symptoms are never omnipresent and appear only in particular circumstances.

[8] The symptoms girls present:

> Non-hyperactive females are more likely to be noticed in the classroom because of their chronic academic underachievement, their 'day dreaminess,' and through evidence of specific learning difficulties. Although they can indeed develop oppositional defiant behaviour and conduct disorder like males, they tend to act out these tendencies more covertly, through such anti-social actions as shoplifting and sexual promiscuity, rather than through physical aggression. (Cooper & Ideus, 1996, p. 24)
>
> So, what might a girl with AD/HD look like in the classroom? She will be chronically disorganised, a poor speller, shy, confused, and often ignored by peers. However, because some girls also have 'hyperactive' brains rather than overactive bodies, some may also be overly talkative, in ways that actually disturb others. (Cooper & Ideus, 1996, p. 77)
>
> Generally such motor activity in girls tends to be excessive talking (which has greater social acceptance), while boys will fidget, get out of their seats, or act out (which is less socially desirable behavior). (Flick, 1998, p. 274)
>
> Overall, studies of ADHD girls have indicated that they (1) do not manifest the typical symptoms of hyperactivity and impulsivity (Berry et al., 1985). (C. A. Everett & Everett, 1999, p. 23)
>
> While some of these girls may evidence fidgety and restless behaviors, they usually do not have the same intense need for physical activity as the ADHD boys do. In fact, many of these young girls can be quite passive, displaying more depressive symptoms. These girls may be described by their teachers and school counselors as "flaky," "scatterbrained," or "spacey." These characterizations reflect adults' frustrations with these adolescents' difficulties in paying attention in the classroom or staying "on track" in their conversations. (C. A. Everett & Everett, 1999, p. 202)
>
> Boys with ADD or ADHD tend to be more oppositional and aggressive than girls and thus are more of a discipline problem. . . . So, girls who are struggling more quietly may

not come to the teacher's attention as having any major problems. (Zeigler Dendy, 2000, p. 23)

> The results of this analysis suggest that girls with AD/RD are more likely to have learning problems while boys with AD/RD are more likely to exhibit behavior problems. Within a structured learning environment, behavior problems probably lead to more referrals, whereas learning problems are probably addressed within the context of the school setting. This may partially account for a lower referral rate of girls for clinic-based treatment. *Since AD/HD may present itself differently in girls and boys, how we respond to our students will no doubt vary also*. (Lensch, 2000, p. 23)

> Girls tend to show symptoms related to Attention Deficit Disorder (ADD), such as inattentiveness and other cognitive impairments, whereas boys show symptoms related to hyperactivity, such as disruptive behavior and high activity levels (Szatmari, Boyle, & Offord, 1989). (Pepler & Craig, 2005, p. 7)

> Hyperactive girls tend to have more difficulties with mood swings and emotional outbursts and tend to be less aggressive than hyperactive boys. However, when these aggressive and conduct problems occur, they can be extremely difficult to cope with. (Kewley, 2005, p. 17)

[9] For example: Huessy, Marshall, & Gendron (1974) in their review of a study on behavior disorders, studying boys and girls first talk about 'these children' and then "Many of *these boys* [italics added] are utterly bored by novels which are built around fine nuances of emotional experiences which are incomprehensible to them" (p. 81). This occurs again later on:

> It would appear that *these children* [italics added] begin their lives, for reasons unknown to us, along the upper limits of the standard distribution curve for this type of behavior and that various environmental determinants . . . will determine whether *he* [italics added] will move further toward the extreme of the curve and be a problem or whether he will move more to the center of the curve and just be an active boy. (pp. 84–85)

Similarly,

> So if you really want to change your child's behavior, you ignore his "bad" behavior (unless he's injuring another child or destroying property) and reward his good behavior. Miracles aren't accomplished overnight, but by following the principles briefly outlined here, you'll help your child develop appropriate or acceptable behavior. (Crook, 1977, p. 69)

> Dr. Cott: . . . The moment a child is classified as hyperactive, that's it. Nothing else is

> looked at, and that child becomes a child whose brain chemistry is so strange he is quieted by a stimulant. He can sit. He can concentrate. He can learn. (Kratoville & Schweich, 1977, p. 46)
>
> As the ADD child grows older the description changes: he is incessantly in motion, driven like a motor, constantly fidgeting, drumming his fingers, shuffling his feet. (P. H. Wender, 1987, p. 11)
>
> When stimulants work the child matures and may function better—at least temporarily—than he has ever functioned in his life. (P. H. Wender, 1987, p. 61)
>
> If a child over the age of five has an accident while in time out, he must clean up the mess. (Stein, 1999, pp. 122–123)

[10] See:

> I also choose to use the masculine pronoun "he" in some sections of the book and the feminine pronoun "she" in other sections so as not to imply that all teenagers with ADD or ADHD are either male or female. (Zeigler Dendy, 2000, "A note about terminology")

And

> The names of the individuals involved in examples and case histories used in this book have been changed. We have randomly interchanged the pronouns used in the book. Although ADHD still appears to afflict more males than females, most often examples reflect experiences that could be those of either sex. When reading the information, feel free to think of the children, adolescents, and adults you know best. (S. W. Garber, Garber, & Spizman, 1997, front matter)

[11] See:

> Author's note: For simplicity's sake, when referring to an ADHD child other than Brian, the word "he" is used generically. It could almost always mean "he" or "she." (Neuville, 1991, front matter)
>
> For convenience, we use the masculine "he" to indicate both genders. (Ingersoll & Goldstein, 1993, "Author's note")
>
> To avoid awkward changes back and forth, I have used the pronoun "he" rather than "she". (P. H. Wender, 2000, p. 8)

[12] Stewart & Olds (1973) and Rogers (1979) use 'he' to refer to the child with inattention/hyperactive behavior, and are conscious of it, explicitly justifying it by indicating the greater prevalence rates among boys:

> We will usually refer to the hyperactive child as "he" because there are many more boys with this kind of behavior, perhaps as many as eight boys for every girl. (Stewart & Olds, 1973, p. 3)
>
> My apologies for the use of the word "he" to refer to the hyperkinetic child. Although many more boys than girls are hyperkinetic (approximately five boys to every girl so blessed), "he" is used for the sake of brevity, not because of its implied gender. (Rogers, 1979, p. xv)

See also:

> After trying several versions of nonsexist language, we decided to refer to ADD children in the masculine because the number of boys diagnosed as ADD outnumbers girls by at least ten to one, and, moreover, a precedent has been set by others who write about ADD children. (Kirby & Grimley, 1986, p. 7)
>
> Because of the preponderance of males with ADD, most examples in this book will be boys. Nonetheless there are many girls with the disorder, and any example of male behavior used for illustration can be applied equally to females. (Friedman & Doyal, 1987, pp. 3–4)
>
> Because children presently identified as ADD are predominantly boys the male pronoun will be used when referring to an ADD child. (Beugin, 1990, "Disclaimer")
>
> Throughout this book, the male pronoun is usually used to refer to children with ADHD. It should be understood that many children with ADHD are girls. But the overwhelming majority are boys, as we shall see in chapters 1 and 3. (Bain, 1991, p. 11 [footnote])
>
> Boys are five or six times more likely than girls to be diagnosed with ADHD because they're more apt to be hyperactive and disruptive (hence the use of the term "him" throughout this book to refer to the ADD child). (Freed & Parsons, 1997, p. 23)

[13] Wender has retained the same text in the 2000 version as in the 1978 book:

> When coordination problems are present they usually cause more difficulties for boys than for girls because for boys athletic ability is an important source of acceptance by others. (P. H. Wender & Wender, 1978, p. 13)

[14] All the literature is heteronormative, assuming husband-wife relationships. See for example (K. R. Murphy & Levert, 1995) in the discussion on spousal relationships.

Chapter 8: Conclusion

Summary

Disorders of inattention and hyperactivity have been the object of inquiry and debate in various fields: educational, medical, political, and sociological, among others. This inquiry and debate compelled me to conduct some reflective work, an analysis of things written about disorders of inattention and hyperactivity. Having encountered statements expressed with much conviction about the reality or mythical status of ADHD, the wonders and ills of stimulant medication, and the promise of better lives or the threat of the social control of children, I thought there was an opportunity to take this proliferation of statements as itself an object of study. My motivations were exploratory and documentary, and I did not wish to resolve debate as much as understand why it was so intransigent. Was ADHD really and simply a matter of social control? Is scientific ignorance the only barrier to resolving the distinction between disorder and non-disorder? Were people diagnosed with the disorders in question simply misbehaving, or did they have a medical problem? Expressions of various positions had such conviction they indicated something more than the truth of an utterance was at stake. What appeared to be at stake was the authority of a particular form of scientific inquiry vis-à-vis disorder, as well as the right to intervene in children's lives. I sought to complicate these perspectives and trouble such convictions. I hypothesized that a deep familiarity with what people write on these issues, coupled with a critical attempt to suspend easy answers, might result in better questions to ask.

Significance

The major conclusion which follows from what I have discussed here is that the distinction between disorder and non-disorder is already and always political. I support this conclusion through the case in question, but it may apply more broadly for reasons provided in Chapter 2. When I write that the distinction between disorder and non-disorder is already and always political, I mean two things: the first is that such a demarcation is not the product of disinterested science which has cast off cultural or ethical commitments. The claims of natural

science or the successes of treatment are not fictions, and barring sufficient argument to the contrary, are not suspect just because they obtain some authority. But what is their utility? These claims are not made for the sake of a taxonomy of human variation. Their utility lies in their application to the social and political process of regulating bodies and behaviors, an application which would be impossible were they not true. Medicalization is possible, medicine is warranted, precisely because it a means to realize normative commitments, not because it rejects them in favour of technical analysis. State descriptions have their relevance because they are a means by which one can achieve ends about how bodies and behaviors should be, not because they reveal undeniable truths about dysfunction or failure. This is against positions which try to justify disorders through the denial of ethical or political commitments. Such positions aspire to demonstrate that disorders can exist, be identified, understood, and treated, independently of interests and values. However, this has not been done for disorders of inattention and hyperactivity; my argument is that this cannot be done; and that such commitments will resurface, on a close reading, in the very places where they are supposed to be absent.

The second point of the political nature of demarcating disorder is that every such demarcation constitutes a field of power relations. Each disorder reflects and encourages a particular social arrangement. This is an arrangement of the ways of knowing one's self and others, and the distribution of the right to intervene in one's life or that of others based on that knowledge. I have endeavoured to sketch some of the relations at play in disorders of inattention and hyperactivity. These relations are mutable; their stability requires individuals and institutions with sufficient means to enforce their understanding of a disorder, even if those agents are unaware of what they are doing. It is important to note that this is not inherently a duplicitous or manipulative operation, for the relevant individuals and institutions may include those diagnosed themselves. Nonetheless, such relations can become naturalized and rendered opaque, concealing their conditions of possibility and foreclosing any discussion of their contingent nature.

Given this conclusion, then there is particular reason to expend the sort of

labour I have done here on raising new questions. It is important to raise new questions not because, once those new questions are answered, they will give a more complete picture of a disorder in its totality; that each iteration of question-raising and answering would approach a total description of the object under consideration. The more important reason to raise new questions is to prevent a field of power relations from becoming sedimented and naturalized around a disorder. When disorder is fundamentally normative, a scientism which seeks the last word on disorder is a political act, not an objective fidelity to the facts or to evidence. This does not vindicate any critique or any unorthodox statement which might be made about disorder. But it gives the lie to claims that critical statements, such as sociological ones, are produced only through ignorance of evidence, that if one were properly acquainted with the facts of the matter, the normative entanglements of disorder would fall away. Indeed, the best sociological analysis of disorder will be one which is quite familiar with the defensible claims made on behalf of the disorder in question. This familiarity will indicate the limits of those claims and their role in the valuation and disvaluation of particular forms of life. While answers, scientific and otherwise, may be evaluated in terms of reliability and validity, the questions which stimulate them are not so limited. The act of questioning is not to aspire to immediate closure. If it were so, why would one suspend, for example, discursive formations? The point is to challenge a field which dissuades some possibilities and encourages others while presenting itself as a neutral, intractable state of affairs. Such a field has very real consequences for those operating within it; by illuminating this field asymmetries of power can be exposed as such.

If the research question was *How have ADHD treatments understood the ADHD subject, and in what way have such understandings made those treatments intelligible and legitimate?* I believe I am justified in concluding that treatments for such disorders, whether they come from a skeptical perspective or one aligned with dominant trends in medicine and psychiatry, are well-intentioned. They seek to produce a subject who can ‘get on’ in the world, who can attain some competency in social skills and who can exercise the faculties necessary to avoid

penalties and harms which appear caused by the relevant behaviours. The evidence also suggests that treatments from medicine and psychiatry are not only well-intentioned, they are successful in practice. However, the critical point I have found through this research is that this success is possible only because medicine is imbricated with socialization and with the social context of which it is a part. Furthermore, this imbrication goes all the way down, so to speak. It is not the case that there are objective entities which manifest, somewhat regularly, as subjective complaints when those objective entities encounter the messy world of education, work, and home life. At bottom, at least in the case of disorders of inattention and hyperactivity, medicine is an institution of socialization, and the production of disorder is a social process. The techniques of identifying differences among people and the justifications for acting, and for particular actions, are always already part and parcel of the entities such as ADHD which they bring into the world. This does not indict the practice of medicine whatsoever, but it does compel us to see, as Peter Sedgwick urged, the political consequences over how disorder is defined and the options available to those who fall into categories of 'disordered'. These consequences cannot be resolved or displaced by appealing to state descriptions alone, however discriminating those descriptions might be.

This argument is the general sum of elements which persist throughout this dissertation; there are a few points of individual significance worth highlighting at this stage.

I found current sociological research on ADHD and related disorders to be laudable and sophisticated, but also problematic in its apparent reluctance to write about the status of these disorders as legitimate or not. One approach to dealing with ambiguity around the status of ADHD has been to question scientific claims, and another approach has been to reassert epistemological boundaries between disciplines. I found these approaches wanting, and that they require epistemological and ontological commitments which are unnecessary. Therefore, in Chapter 2 I advanced an argument regarding whether sociological inquiry has a right to discuss disorders proper, or whether it can task itself solely with the social and cultural consequences of disorders which are otherwise objective and

independent of circumstances. I have argued here that sociology is quite right to discuss disorders proper. Whatever future developments or arguments might emerge in favour of a different understanding of disorder, disorders of inattention and hyperactivity currently do not exist separately from disvaluations of their constitutive features. Furthermore, as it stands, these disvaluations are fundamental. In their absence, there is no meaningful discussion of such disorders.

I defended this argument through an analysis of the definition of disorder which the *International Consensus Statement on ADHD* and its defenses employs, its variation of Jerome Wakefield's Harmful Dysfunction Analysis, which is at the very least problematic. There is no consensus on the merit of this definition, and those responsible for including disorders in diagnostic manuals do not use this definition in practice to distinguish disorder from non-disorder. In determining what in practice is a disorder, there are principles at work other than those of HDA and its variants. Additionally, the Consensus Statement's use of HDA is underdeveloped. Presenting a diminished version of Wakefield's HDA, appeals to 'universal' mechanisms and reductive assumptions about the nature of 'harm' (Hawthorne, 2007) are not without contradiction. The Statements' attempt to satisfy its own criteria fails to account for the normative commitments which make this disorder sensible *as* disorder. It presents the satisfaction of these criteria as confirmation that the disorder is a disorder for scientific reasons, when it consistently relies on normative concepts about deficiency, failure, function, and harm. The problem for the Consensus Statement is not that ADHD does not 'exist'; nor that the harm associated with state descriptions cannot be measured. It may be quite reasonable to assert that the disorder is real, and that people do experience impairment. However, such assertions are possible only through conditions which the Statement fails to account for. The scientific data may be incontrovertible; however, the identification and demarcation of disorder is not fully explained by that data, because one's measurement of impairment and its causes is a function of undeclared values. The Statement's ability to foreclose recognition of this operation is not due to the weight of the data it cites in support,

but to its naturalization of what are contingent matters, and for extra-textual reasons about the distribution of institutional authority. The variability in which ways of being are desirable is endlessly variable—ADHD is very real, yet also a product of historical circumstance, and thus will never be fully 'objective', that is to say, rendered independent of the normative circumstances which make it understandable as disorder.

The second half of this dissertation presents a series of contradictions which emerge in this literature. By carefully reading across and within this literature I have been able to uncover these contradictions which are persistent as well as implicit.

In Chapter 4, I accounted for the history of attempts to operationalize and measure hyperactivity, and provided descriptions from the literature under consideration of what sort of behaviors characterized hyperactivity. I found that an understanding of hyperactivity as an excess of movement posed measurement problems, and such an understanding did not conform to intuitions about the distinctive features of disorders of hyperactivity and inattention. The indissoluble aspect of hyperactivity was disruptive behavior, rather than types or quantity of physical movement. This opened up a space to conceive of disorders of inattention and hyperactivity as something other than a base excess of movement. Had excessive movement distinguished the population under consideration from control populations, it may have attenuated the incentive to theorize and examine neurological deficits behind said behaviors. As it stands, however, without hyperactivity as the defining feature, theories of behavioral inhibition became increasingly significant. Given understandings of the disorder as something other than movement alone, there was a conceptual shift from a body out of control to a self out of control. Interventions targeted not just the body, but this self which does not have the capacity for moderating itself. The contemporary literature presents the disorder as one of an inability to moderate behavior in accordance with expectations of the self and others, to act in accordance with deliberation on desired and socially-successful outcomes. This puts the ADHD subject squarely in the realm of social life and it is clear that interventions constitute a mechanism of

socialization.

In Chapter 5, I developed an understanding of the moral economy of interventions for disorders of inattention and hyperactivity. Returning to Foucault's commentary on the 'political economy of punishment', I argued that interventions seek to restore social order in and around the lives of those diagnosed. However, the order which these interventions have as their goal is not the simple reduction of movement, or the restoration of capacities for academic performance and social interaction. What persists throughout is the demand that the person receiving treatment become someone subject to punishment and reward, that the individual can be legitimately punished and rewarded, and that inducements to act remain at a distance from the action. This latter point, that the incentives and means which generate changes in behavior not be attributed with causal or moral significance, is very well described by Foucault's understanding of power. The exercise of power, as a relation between individuals, entails a presumption that the other is someone possessed of their own abilities, their own capacities to reason and respond with some autonomy, and through the manipulation of the circumstances in which power is exercised, particular outcomes are made more or less possible, more or less likely to be realized. For those receiving treatment for disorders of inattention and hyperactivity, the literature under consideration frames them as neither liberated in the broadest, simplest sense, nor are they completely subordinated to the dictates of another. What interventions presume is both an individual who receives greater capacity to act in accordance with desire and reason, but also that these interventions result in a specific outcome which is accepted by the person diagnosed and the institutions in which said individual finds herself. The individual treated becomes a responsible individual: someone who must follow the rules but do so in a way which can be attributed to the individual's autonomy and not to external forces. The literature presents this contradiction, however, as something to be quashed, whereas I have sought to bring it into the light so as to challenge ways of thinking of these disorders. Is it possible to imagine a world in which the impairments of these disorders can be alleviated without having to manage problematic

ascriptions of responsibility? Why is this moral distribution necessary to begin with?

This political economy of rule-following takes a very specific formulation in the question of pharmacological interventions for disorders of inattention and hyperactivity. The success of stimulant treatment for these disorders prompts again a contradiction. The literature advises readers to guard themselves against the threat of the individual who may attribute successes and failures to something other than the individual, thus denying responsibility, and thus exempting said individual from the political economy of reward and punishment. If medication has an effect, then it is peculiar to deny such an effect. The threat is therefore not that the individual on medication is deceived about the function of medication; the threat is that the individual grasps clearly how medication operates to make some actions more possible and others less so. Surely if medication has beneficial effects, then the presence or absence of those effects is not a function of the individual alone. It is the very soundness of this argument which threatens to disrupt the legitimacy of managing those with a disorder, because the success of management is premised on a person who acts out of personal deliberation and autonomy, not in light of external reinforcement. Consequently, this literature presents various strategies dealing with this threat. I have divided them along the two axes which structure the options available to those diagnosed. The first is whether the individual is taking medication or not, and the second is whether the individual is behaving properly, successfully, or not. Given a field of action along these two axes, the individual undergoing treatment has recourse to arguments about the injustice of reward or sanction, e.g. "I have not taken my medication, therefore I should not be held responsible for behaving as though I have not taken my medication." The reader is advised of these scenarios and encouraged to prevent them from happening and to deny their legitimacy. One must not misbehave, nor behave because of outside influence, but behave because of one's self. This individualization of behavior is a way of managing the distribution of punishment and reward. Again, these conclusions are presented in the literature as common-sense and necessary, but the point here is to suggest they are not

necessary; that they are to some extent incoherent justifications for interventions. These strategies seek to allay fears in spite of themselves.

In the final chapter, I found that gender was a theme present in much of the literature. This was understandably so, given the proportion of boys who receive a diagnosis versus the smaller proportion of girls who do. The question of whether ADHD is medicalizing the normal behavior of boys is a difficult question to answer with any specificity. However, given that general treatments for children diagnosed with a disorder of inattention and hyperactivity seek to induce normal behavior, what I was able to show in this chapter was how this normalization process can proceed along gendered lines. Interventions for normalizing children do not do so in an abstract sense, but are inclusive of norms about gendered behavior and expectations. The literature on regular occasion unwittingly presents interventions for boys and girls with ADHD as an opportunity to reinforce common norms about boyhood and girlhood. This opportunity extends as well to men and women so diagnosed. Treatment advice accounts for different experiences of the disorder along gendered lines, but rather than drawing those lines into question, takes them as a given and something to be dealt with on an individual level. The other insight I provided in this chapter was the contradiction of devoting special attention to women and girls diagnosed with these disorders. While their experiences had been given much less focus in the 1970s and 1980s, in the 1990s there was a call to account for women and girls with such disorders, and this call takes form in dedicated advice and chapters directed at women and girls specifically. While this focus is warranted on the grounds that these groups have not received consideration, it reinforces their marginal status by making 'girls and women with ADHD' the exception to the supposedly neutral child or adult with ADHD, who is in practice in this literature a boy or man.

Do these insights about ADHD and gender identify missteps to be rectified? I believe their import is more importantly the recognition that these understandings of the disorder, as well as attempts to problematize it, have not addressed these discourses in their complexity. Attempts to solve problems, to answer obvious difficulties about gender and ADHD, disproportionately value the simplicity of

questions and the comprehensiveness of solutions. But claims about ADHD as the medicalization of boyhood, or ostensible solutions to recognizing girls and women with the disorder, unwittingly reinscribe fields of power relations, of possibilities. What is necessary is a greater patience for asking more problematic questions of these disorders, rather than reducing them to misplaced diagnoses or simple attacks on girls or boys.

In sum, one of the guiding principles of this research has been to look anew at what has been written about disorders of inattention and hyperactivity and to suggest new lines of thought to pursue. My curiosity which initiated this project has been satisfied, replaced however with an arrangement of questions. Alongside the spaces which the contradictions just discussed open up, there is another series of questions, or incentives for future work, to present. However, they are a step removed from this current work. I will discuss them in turn, but first will reflect on the methodological approach I had taken.

Methodological reflections

This study did not undertake to talk to and analyse these people in their everyday lives and in their experiences of receiving a diagnosis, but it did seek to improve what questions one could ask about and to them. It did so in contrast to existing sociological research on disorders of inattention and hyperactivity, research which described itself as conducting discourse analysis. Such research also grounded its discourse analysis through additional methods, such as participant observation and interviews. I thought a commitment to discourse analysis alone was defensible, not least because it allows a sort of critical reflection and devotion to purpose. This methodological specialization would, while circumscribing the sort of claims I would be able to make, also enable a much deeper description and broader analysis of the literature under consideration.

As I had indicated, much of the contemporary sociological and discursive work on disorders of inattention and hyperactivity relies on Michel Foucault. This leaves me wondering the extent to which the conclusions, claims, and interpretations here are indebted to Foucault, or the extent to which they are a

function of the interpretive frame he provided. Foucault may very well be productive and appropriate for the subject matter, but it prompts the question as to why this is the case, and also it suggests that other forms of analyses may be neglected. I ask whether an approach motivated by thinkers such as Pierre Bourdieu or Marx might provide a complementary, or even contradictory or superior approach to this literature and disorders of inattention and hyperactivity in general. The dearth of alternative theoretical approaches may ultimately occlude what sociological-discursive analyses say, as much as a commitment to Foucault aims to provide some liberating clarity.

On a more technical note, the approach I followed was indeed useful in generating new questions and alerting me to areas of inquiry currently unaddressed. It did so by immersion in a broad series of texts. The material I collected for analysis generated a large amount of data and sources, which are far from exhausted. However, working at right angles to 'discursive formations' meant familiarization with those discursive formations, without the structuring ability which histories of concepts, subjects, themes, and approaches can provide. That is to say, it freed me to find parallels between, for example, contemporary texts written for educational professionals and works from four decades ago for physicians. What the suspension of 'discursive formations' also meant was the suspension of analyses of the material conditions or intellectual trajectories which may have led to the findings relayed here. The methodological commitment I made was a trade-off between analytic freedom and a unifying context or referent for the current inquiry. Working in this direction meant that I was not tasking myself with the reconstruction of contemporary consensus, of the origins of established matters in ADHD, but I feel one can only suspend those formations momentarily. In the end one must circle back to such formations, armed with the new questions and ideas this labour provided.

Future work

There are several general directions which this work indicates for future efforts, and they can be divided into two sorts. The first sort of direction is the development of the current research findings. The second is to extend these

findings into new spheres.

A Closer Look

Many of the themes raised in this dissertation deserve a closer look. The subject of these interventions, in the literature studied, is not a body out of control, nor an inattentive perceptual system in any strict sense, but someone who does not conform to expectations about behavior. Whatever the realities of perceptual systems and inhibitory control, and their unequal distribution among populations, what the reader is advised to intervene in is inappropriate behavior and unsuccessful social performance. Given the variety of forms which a deficiency in inhibitory control can take, it prompts one to ask the limits of a diagnosis: is it possible to successfully treat an individual diagnosed with ADHD when this individual still fails to pay close attention during tasks, or to not sit still when others expect it, doing so instead of her own volition? What about those whose particular level of inhibitory control is insufficient to obtain a diagnosis but still experience impairment, or conversely, those who reap rewards for a disproportionately high level of inhibitory control? In the discussion of attributions, there is a recognition that under existing circumstances, those who receive a diagnosis have the resources to excuse themselves from responsibility. These resources are to be stifled, as the production of responsible individuals is one of the goals and justifications of treatment. Whether with or without behavior modification and pharmacological treatment, is it possible to imagine a world in which there is a desirable social order, or a world in which people flourish, that does not find it necessary to rely on the concept and attribution of 'responsibility'? This may be difficult to imagine, and may be too casual about the negative consequences, but it strikes me as important to ask how necessary such a concept is for sustaining the field of ADHD-discourse. Is it possible to jettison this term and its cognates entirely and still proceed as normal in caring for and treating the lives of ourselves and others? Conversely, is 'responsibility' something eternally indispensable to the enterprise of defining disorder, educating and parenting children, and providing therapeutic drugs? One finding which justifies further and more specific analysis is thus the research on attributional

style and specifically attributions for children receiving medication for disorders of inattention and hyperactivity. This research is rarely invoked in the material studied here, but it seems to be research which would confront the moral issues of medication for children more directly and with heightened awareness.

As it stands, recent work has pursued these questions. Ilina Singh is leading the VOICES: Voices On Identity, Childhood, Ethics and Stimulants project at the London School of Economics and Political Science conducting studies on children's experiences of ADHD and stimulant treatment. She is looking at these concepts of autonomy, authenticity, the self, and control, at how children with and without a diagnosis experience ADHD and medication treatment, asking them about their experiences and understandings of 'personal authenticity, autonomy and agency, and moral self-evaluations' (Singh, 2005, 2006, 2007). The results are to be released in 2011.

Another area which compels inquiry is the history of measurement of movement and excessive activity. This applies not only to ADHD and its antecedents but other disorders characterized by movement. I believe the findings in this research support the transition from uncontrolled bodies to uncontrolled selves, but such forms of measurement extend to earlier historical periods and across scientific specialties. I therefore arrived at the current claims *in media res*, as it were.

A third realm which could stand on its own as a research project is the relationship between diet, domesticity, and disorders of hyperactivity and learning behaviours. Whatever the success of diet changes in alleviating symptoms, there is a persistent notion that changing the diet for one child requires changing the whole family's diet and eating habits, for the better. Why do people invest in the idea that eating habits can change behavior, and what particular cast does this take in the case of disorders of inattention and hyperactivity?

One theme which I had looked for but found results inconclusive was the question of class. There was no discussion of how children of different socio-economic backgrounds may demonstrate or experience such disorders differently, nor was there any consideration of how this might affect treatment.

The absence of this does, however, prompt one question which persisted as I reviewed the material under consideration, and it was how different treatments make different demands on time, finances, and the lives of others.

Regarding the time commitment of treatment, it may not be as taxing to participate in a regime of medication treatment as it would to engage in structured behaviour modification. While the literature does not advocate prescribing stimulant medication and then leaving those diagnosed to their own devices, behavioral modification nonetheless presents a much larger temporal commitment, involving extended surveillance of behavior, participation in extracurricular activities, record-keeping, and additional meetings with educational and medical authorities.

Regarding the financial commitment of treatment, the above endeavours are very rarely discussed in terms of cost. The ability to pay for stimulant medication or extracurriculars is not discussed. The one exception is discussions of the support offered through the Individuals with Disabilities Act, applicable to United States. Very frequently the reader is advised of this option and provided with information on how to successfully navigate administrative apparatuses charged with the provision of resources. This option is presented as desirable for any who are eligible, rather than as a supplement for those who would otherwise, due to socio-economic status, suffer disproportionately.

The additional resource-dependent implication of treatment is how some forms of treatment require investments by multiple people in the life of the person diagnosed. Medication treatment implicates a relatively small number of people at the micro-level: the prescribing physician, the individual diagnosed, said individuals' guardian, and perhaps a psychiatric or psychological professional. Other plans such as changing a family's diet and eating meals together, or coordinating behavior management among multiple teachers, school psychologists, physicians, and environments, are significantly different demands, requiring commitment from far more people.

Finally, if social and cultural capital are aligned with economic capital, then much of the treatment options above will be feasible and applicable only to

particular socio-economic strata of those diagnosed. The ability to navigate educational systems may be distributed unequally, and therefore the distribution of treatment may be similarly distributed. This seems to be not discussed in the literature. It prompts the question of whether this is the case, whether these hypotheses about socio-economic status are in fact in play. If so, it also prompts the question about the consequences of the literature occluding this matter.

Comparative Work

It seems that comparative work is called for. The danger of this case study is treating disorders of inattention and hyperactivity as exceptional cases, when such disorders may fully be part of more general ideas about the behavior of adults and children, about the role that medication plays in becoming a responsible social actor, or about medicine's status as a social institution.

Given the themes of control and responsibility which I have emphasized and their intersection with problems of the body, I see two paths along which comparative work should proceed: the first is comparative work with other disorders and whether they rely on postulated deficiencies of self-control. This would apply to the case of addictions, for example, but also dyskinetic symptoms and their appearance in other realms, as well as to issues of obesity, and how the distribution of responsibility for obesity is managed. The second, more reaching comparative work would be to compare these disorders with other spheres where self-control and responsibility appears to be necessary or fundamental to discourse, but in contrast is not pathologized. I am thinking of areas such as fiscal responsibility, whether at the level of the state or the individual, and why such a conception would matter (rather than simply reducing things to free exchange relations), as in the notions of 'privatizing responsibility' and 'responsible citizenship' (Ilcan, 2009). It is in these areas that I suspect one would find the management of a political economy of punishment, or the management of the distribution of moral sanction.

A Broader Analysis

There is also the opportunity to connect this current work more broadly, both

temporally and conceptually. What are the connections with other disorders of movement? What is the conceptual history of 'attention' or 'behavior' and how does this intersect with these disorders which appear in the latter half of the 20th century? There is also room to return directly to William James' work on the will, but I think in particular of Jonathan Crary's *Suspensions of perception: Attention, spectacle, and modern culture* (1999), a distinct historical analysis of the modern development of the faculty of attention and its relation to aesthetic and psychological changes.

Outside Discourse

While this study was about written work, seeing such work as a social phenomenon in its own right, this work has its relevance in its interconnection with other social phenomena. Therefore, while discourse analysis has its benefits, the hope is that the questions and points raised in this research might inform new ways of speaking with people about their experiences of disorder. Against managing the problems of attribution, for example, it may be more useful to speak to those taking medication and/or receiving a diagnosis and their own understandings of freedom and constraint.

Concluding thoughts

In the course of this research, I had taken pains to suspend judgment about the disorders in question. I saw this as an opportunity to contribute to ways of thinking about these disorders. The privilege of this task of concerted reflection is that one can suspend judgment for a moment, that there is no immediate decision about medication, children, or one's self to be made. The obligation which corresponds to this privilege is to broaden the scope of possible actions to be taken in relation to what is written and read about disorders of inattention and hyperactivity. The goal was not simply to supplant mistaken understandings with correct understandings, but to demonstrate how commentary on disorders of inattention and hyperactivity was complex, and that reductive accounts did not do justice to the disorder nor those people written about. Furthermore, this conceptual clarity at which I have aimed is not to remove contradictions, leaving a

pure remainder, but to provide the terrain in which these difficult contradictions can be examined with greater clarity.

Disorder is always already political, but is not always recognized as such. At times, for specific forms of impairment, this may be unobjectionable. What is critical is that disorder in general be understood as political; that the opportunity persists for any disorder, as a field of power, to be called into question. Medicine, education, the family, and childhood, are all institutions in which negotiation over the valuation and alteration of forms of life takes place. Ceding ground to any of these institutions, or others, as neutral sites in which disorder is unproblematic is to tacitly approve of those institutions' particular structures of power. The alternative is to recurringly explore such structures of power through persistent questioning, and to turn such questioning back on itself as well.

The suspension of judgment, then, is not total. I have examined positions both skeptical and approving of the disorders in question. These positions elide their own contradictions and operating assumptions, and I have found such positions wanting. This research and the arguments I have made are therefore devoted to the continued production of questions, questions meant to prevent the comfortable evasion of the complexity of disorder.

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Appendix

Methodology

I relied on the NEOS Library Consortium's holdings to establish a corpus of material to consult for this research. Items consulted, whether cited in this work or not, are indicated in the bibliography with an asterisk.

To obtain this corpus, I queried the NEOS library system catalogue according to the most common terms for attention disorders for the years 1970–2005 as well as for those without a date ('n.d.'). Because this query returned items with a publication date other than those between 1970–2005, I excluded those items.

To further specify the material in question, I removed results which were written in a language other than English or if they were audio or video recordings. I removed duplicates which the queries returned. I also removed from the potential list of sources those which were not related to the research at hand, for example those sources in the catalogue using 'hyperactive' in a figurative or different sense (e.g. 'Bronchial Hyperactivity', 'Attention Deficit Democracy'). I also removed children's literature and fictional works. I removed compilations, by which I mean things such as dictionaries, general overviews of behavioral disorders, of problems in adolescence, and so forth.

While these decisions were made largely for pragmatic reasons, there is no reason to exclude such material from further research on discourses of disorders of inattention and hyperactivity.

Search terms

ADHD
attention deficit
attention-deficit
attention disorder
hyperkinetic
hyperkinesia
hyperkinesis
hyperactive
hyperactivity
MBD

minimal brain dysfunction

Libraries of the NEOS Consortium during the collection of materials

Alberta Government Library - 107 Street

Alberta Government Library - Capital Boulevard

Alberta Government Library - Labour Building

Alberta Government Library - Telus Plaza North

Canadian University College

Capital Health - Alberta Hospital Edmonton

Capital Health - Community Sector

Capital Health - Glenrose Rehabilitation Hospital

Capital Health - Royal Alexandra Hospital

Capital Health - Sturgeon Community Hospital

Caritas Health Group - Grey Nuns Community Hospital

Concordia University College

Grande Prairie Regional College

Keyano College

Lakeland College Lloydminster

Lakeland College Vermilion

Olds College

Red Deer College

Taylor University College & Seminary

The King's University College

University of Alberta Augustana

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