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Education *for* Sustainability: A Moral Framework

by

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Abstract

Issues of sustainability are germane to Canada and the US, including their educational institutions. The following thesis considers the task of how to achieve greater sustainability in education and eventually the broader society through major educational reform. In order to deliberate on this task, a specific interpretation of sustainability is put forward. Furthermore, this interpretation forms the basis of an "educational framework for sustainability." The thesis argues any plan for education geared towards sustainability must be better represented by anti-capitalist/oppression content as well as content essential to environmental sustainability. It also argues that learning outcomes focusing on sustainability must be taught from a moral perspective in order to facilitate the creation of a post-liberal "hegemony of sustainability," and outcomes that focus on sustainability should be incorporated into current educational frameworks in such a way that they strengthen (rather than undermine) important liberal principles, such as equal opportunity.

Keywords: education policy, education reform, sustainability, liberal theory, moral education, anti-capitalist education, anti-oppression education, environmental education, progressive education

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Instead of being the most honoured and responsible occupation, education is now considered slightingly, and most educators are fixed in a routine. They are not really concerned with integration and intelligence, but with imparting information; and a man who merely imparts information with the world crashing about him is not an educator.

–Jiddu Krishnamurti (1956, p. 98)

Are the persons who have governed, produced acknowledged works of art, built fortunes, and conducted military campaigns really our best persons? Did their education produce a goodness we really want to replicate, or has its acquisition merely been the defining mark of those who claimed themselves to be the best? If a different sort of education had been offered, might our best have been a more compassionate, more generous, more open, less judgmental, less acquisitive, and wiser set of persons? These are important questions, and no scheme for general education should be seriously put forward without exploring them.

-Nel Noddings (2005 [1993], p. 164)

Chapter One: Introduction

The primary purpose of the following thesis is to demonstrate there exists a need for major reform in public education in Canada and the US in order for schooling to better align with and contribute to a sustainable society. The secondary purpose is to describe what a sustainable education system entails and how it may be integrated with existing educational frameworks. The following textual analysis of contemporary educational policy research will seek to expose the inadequacies of many current policies in promoting a generalized culture of sustainability within Canadian and US schools. Indeed, many current policies act as roadblocks to progress regarding the integration of an educational framework for sustainability and other progressive educational practices. Education policy represents a major opportunity for addressing persistent issues concerning sustainability, as policy functions like a blueprint for institutional processes. Moreover, sustainability issues can be addressed through education policy in a more proactive and democratic manner.

The thesis focuses on one overarching research question and two subsequent questions. The overarching research question is, what role does liberal theory play in obstructing and/or strengthening efforts to bring about an “educational framework for sustainability” in Canada and the United States? The first

subsequent question is, how might a *moral* approach to an educational framework *for* sustainability make such a framework more effective? The second subsequent question is, how might an educational framework for sustainability be *practically* integrated into the current educational framework so that particular liberal principles are strengthened rather than undermined?

Overview of Thesis Organization

The introduction seeks to expound the reasons for the arguments and assumptions below as well as to clarify what is meant by economic, social and ecological sustainability. Furthermore, the introductory chapter will seek to map out the connections between education in Canada and the US and sustainability. For instance, is it reasonable to assume that the content of one's education shares a correlation with how sustainable a society is?

Chapter Two problematizes the individualist, neutral character of liberal ethics (which underpin education in Canada and the US) by suggesting that individualist orientations and neutral ethics are incapable of adequately addressing persistent moral issues, such as war, oppression, ecological destruction, capitalism, and gross consumerism in the context of sustainability. Chapter Two also seeks to outline the *historical* emergence of liberal/capitalist ideas from feudal society. This is done to help outline the weaknesses and strengths of liberal theories, which are characterized by certain "universal" principles. In particular, the principles of equal opportunity and self-determination are analyzed. Equal opportunity and self-determination are analyzed in order to show how current school policies in Canada and the US undermine these valuable liberal goals and, thus, how they undermine attempts to bring about greater sustainability in education. Considering that one cannot deliberate on sustainability without taking into account economic, social and ecological factors (i.e., the three pillars of sustainability), the thesis considers reform that can help bring about greater economic, social and environmental sustainability in schools in Canada and the US. One chapter is dedicated to each of these specific pillars of sustainability.

The third chapter (economic sustainability) is split into two parts. In Part

One, capitalism is critiqued from a critical pedagogical perspective. In particular, the ubiquitous legitimization of private productive property and blind promotion of competition is challenged from this perspective. This is done by closely analyzing the history and logic of private property rights as well as key differences in the way liberals and capitalists view competition. Furthermore, I argue that the constitutive elements of capitalism (i.e., private property rights and competition) undermine valuable liberal ideals, such as Rawls' concept of "justice as fairness," in order demonstrate that capitalist and contemporary liberal theories oppose each another in particular ways. Gross consumerism and theories that correlate economic growth to enhanced quality of life (e.g., "trickle-down" economic theories) are also analyzed in order to show how they undermine sustainability. Part Two outlines the traditional liberal purpose for schooling (i.e., to facilitate autonomy) in order to show how capitalists have distorted this purpose to suit the needs of industry. Part Two also outlines the direct use of schools by corporations to increase profits (e.g., the sale of educational goods and services to schools). Chapter Three suggests that making education more economically sustainable must involve integrating learning outcomes into curriculums that teach students about property rights, the value of moderate sustainable consumption as well as key differences between liberalism and capitalism.

In the fourth chapter (social sustainability), potential links between systemic oppression and liberal arts curriculums are investigated. Chapter Four also investigates the historical origins of public education. A historical analysis will be used to help show how education in Canada and the US was initially set up to benefit some more than others. Moreover, it will be shown that systemic inequities persist (despite attempts to rectify them) in order to argue that *major* reforms are needed to achieve greater social sustainability in education. In particular, Bourdieu's theories regarding the role social and cultural capital play in educational settings will be analyzed in order to show how inequities are maintained through public education. The moral educational implications for dismantling systematic oppression will be examined by considering different

ways to implement *anti*-oppression learning outcomes into public school curriculums as well as how to minimize the effect social and cultural forms of capital play in maintaining privileges. The account given for social sustainability questions the ability of tolerance to eliminate racist beliefs and attitudes still common in Canada and the US. Specifically, it argues that overemphasizing the positive effects of tolerance can actually help maintain racist beliefs and attitudes.

In the fifth chapter (environmental/ecological sustainability), the paradox of continued economic growth on a planet with finite natural resources is analyzed. The illumination of this paradox will be refined through a study of the "promethean perspective" of humanity, which implies human transcendence of the natural world. The paradox will be further expanded upon by describing causes of pervasive environmental issues (e.g., loss of biodiversity and climate change) and how they are linked to the knowledge and skills currently taught to students in Canada and the US. In Chapter Five, it is suggested that making education more environmentally sustainable must involve integrating learning outcomes into curriculums that teach students important environmental knowledge and skills (e.g., resource conservation and sustainable food production). The integration of learning outcomes related to biodiversity, climate change and moderate consumption will also be examined from the perspective of systems/complexity theory.

Chapter Six (discussion/conclusion) considers how an educational framework for sustainability could be implemented. The non-neutral, moral approach that I argue must be integrated into liberal arts educational frameworks in Canada and the US draws upon relational ethics (more specifically, "ethics of care"). Furthermore, it is argued that making the concept of care central to current school practices and processes is needed to facilitate the integration of an educational framework for sustainability. The reasons for choosing care as the most suitable concept for this work are threefold. First, like sustainability, care prioritizes interrelations, as relationships are implicit to the concept of care. Second, care is *morally active* and *non-neutral*. Finally, by recognizing the complexity of human experience, ethics of care are highly situated and, thus, have

the potential to strengthen universal principles of justice. For example, Nel Noddings (1999) states,

> The justice orientation often prescribes formulaic remedies and then pronounces the problem theoretically solved … However, there are times when a just government must prod action through law. Probably no one embracing the care orientation would deny this, but we would point out that care often 'picks up' where justice leaves off (Noddings, 1984, 1989). We do not suppose that ethical responsibility is finished when a just decision has been reached. Indeed, it is especially at this point that we must ask: … What happens to the quality of experience for those who will undergo the consequences of our decision? (p. 12).

Seeing as much of the thesis deals with abstract theoretical principles and concepts as well as ideas that challenge the status quo, it will be important to discuss realistic policy options for education departments and facilities. Policy recommendations found in the concluding chapter are intended to contribute to a burgeoning discourse in education geared towards progressive reform. And, though it may be acknowledged that educational reform has great potential for bringing about a more sustainable society, it is not suggested that education should be transmogrified into an instrument subservient to this end. Instead, it is suggested that education should value process (i.e., knowledge and learning in general) and its instrumental purposes more equally.

Methodology, Limitations & Delimitations

The following thesis is a *conceptual* thesis; hence, it relies mostly on theoretical (rather than empirical) concepts and research. The research was done through a textual analysis of books and journal articles that focus on educational policies and practices. Professional, governmental and multilateral reports are also referenced to help ground abstract theoretical concepts and arguments. Moreover, many case-specific examples are given to further clarify abstract concepts and arguments.

In all but a few instances, *secondary* research is used. Primary research was used to determine the percentage of outcomes in Alberta high school curricula focusing on environmental sustainability (see index). This research was used to

assess high school students' exposure to environmental knowledge and skills. The use of tertiary sources was kept to a minimum. In cases where tertiary research is used, secondary sources were investigated to ensure continuity of meaning and context. Whenever possible, the secondary research itself was used.

The vast majority of sources come from chapters in books (~39%), books (~23%), and journal articles (~24%). The remainder of sources come from multilateral, governmental and non-governmental organizations (~14%). Furthermore, the research spans many decades (1950s – 2012), with the majority of texts (over 75%) being published since 1990. The decade with the largest percentage of sources was 2000 – 2010, ensuring the research is highly relevant. Classic texts and theorists are occasionally referenced for historical purposes to help enhance perspective and context. Referencing classic texts and theorists is also important in this particular thesis, as much liberal theory originated and developed centuries ago during feudalism. Studying the differences between classical and contemporary liberal theory also helps draw out distinctions between contemporary liberalism and capitalism.

Much educational policy in Canada and the US is currently influenced by evidence-based, empirical research. Consequently, the theoretical framework proposed here is likely to be viewed as less practical from a policy perspective. The framework does not preoccupy itself with the analysis of empirical data beyond that which helps establish context for sustainability issues, which are often abstract. Rather, the thesis focuses on moral, philosophical arguments pertaining to how education *ought* to be conducted to achieve greater sustainability. The proposed educational framework for sustainability is intended to give educational policy makers a better *reference point* with respect to the kind of empirical studies that need to be conducted and/or repeated in order to fashion sound policies related to sustainability. The framework may also be used to single out current research and policies that work against sustainability.

Another major limitation of the thesis is that it focuses on the realities of socially and economically marginalized populations in Canada and the US. This is a limitation for the reason that the author comes from a very privileged

demographic (white, heterosexual, able-bodied, middle-class male). In realizing this limitation, the views of marginalized individuals were drawn upon as much as possible to increase the accuracy of such descriptions. My experience in graduate school was spent mostly amongst peers coming from traditionally less privileged demographics of society (e.g., women, racial and sexual minorities). Learning about the experiences of my graduate school peers and other marginalized populations aided me in more accurately describing and understanding the experiences of marginalized peoples. I fully acknowledge my own privilege, the advantages I have received from such privileges, and how such privileges are often arbitrary and unearned. Hence, I also drew upon my own privileged experiences (relative to others) to help understand those who are less privileged.

The population of interest in the thesis is Canadian and US citizens. This population was chosen because most texts referenced in the thesis were written by Canadian and American scholars and are based in Canadian and American contexts. As such, the research conclusions and recommendations are likely limited in their transferability to societies outside of Canada and the US. On the other hand, theoretical ideas may be more transferrable to other populations than empirical research conducted under specific circumstances and conditions. For example, given that the research focuses on liberal theory, the thesis may be somewhat relevant to other liberal democracies, such as Organization for Economic Cooperation and Development (OECD) nations, that base their institutions on liberal theories and principles (e.g., equal opportunity and merit).

Foundational Arguments & Assumptions: The Need for a Sustainable Society. Arguments and assumptions that are foundational to the research questions posed above are that

- Canada and the US are ecologically unsustainable in an empirical sense.
- War, oppression, and capitalist forms of growth and development are unsustainable in a normative sense.
- Contemporary liberalism and capitalism are *not* fully consistent with each other.

- Education systems in Canada and the US must attempt to achieve greater sustainability under the dominance of liberal "common sense" in a liberal society.
- Sustainability is directly correlated with the well-being of communities and individuals (i.e., the well-being of communities and individuals is likely to be greater in societies that are more sustainable).
- Continuing to live lifestyles that are unsustainable is morally suspect (especially when considering future generations), as sustainability and well-being both constitute superlative common goods.
- The institution of education has a *significant* influence on the way people conduct their lives more generally.

It is reasonable to assume that changes to education will have a significant influence on the broader society. According to many social and educational theorists, this is a contentious assumption (Bowles & Gintis, 1976, p. 148; Hargreaves, 1980; Katz, 1976; Young, 1990). Indeed, many of these theorists argue that, without significant reform in other social structures, the potential for education to reduce social inequalities, and thus contribute to a common good, is severely limited. Young (1990), for example, reminds readers "it is … assumed, if not overtly stated, that it is the educational institution over all others that has the greatest possibility of alleviating social inequalities" (p. 163). Young makes this statement in order to contrast the romanticized, social engineering purpose of education with the failure of educational institutions to actualize egalitarian outcomes for citizens. "Progressive educators have frequently promoted public schooling as a 'social equalizer.' It is taken to be a means of empowerment for working people and a path to secure employment. But in light of this history [of public schooling], these expectations for public education are unrealistic" (Curtis, Livingstone & Smaller, 1992, p. 50). Some theorists even go so far as to suggest that the institution of education "has been not only relatively ineffective in alleviating inequalities that exist in the broader social structures, but, more importantly, that these inequalities are naturally generated by the educational system itself" (Young, 1990, p. 169). These statements echo the sentiments of

Durkheim that suggest, “Education … can be reformed only if society itself is reformed” (Hargreaves citing Durkheim, 1980, p. 190).

The assumption that education can have a significant, positive influence on the broader society is not meant to assume that education is the institution with the largest impact on the way society operates, or that change always flows in a unidirectional manner from education to the broader society; it simply attempts to get across that, what individuals learn in school, they take with them into the broader society. It would be naïve to think that what individuals learn in school is never exercised within other institutions, spheres and democratic processes (e.g., elections). The assumption that education can help bring about significant, positive change in the broader society is characteristic of the general aims of progressive education. Joel Spring (2009) states, “there is one common element in all its forms, namely *education for active participation in determining social and political change*” (Spring, 2009, p. 127).

One potential reason for why education has traditionally had a weaker influence on the broader society is that liberal education has remained morally neutral when it comes to teaching important matters, such as war, oppression and environmental destruction. That is to say, liberal education systems “are much more comfortable in dealing with knowledge and skills than with ethics and values” (Pike, 2008, p. 79). “Discussions about what to do in education often gravitate toward reliance on empirical bases that seem most certain. But with that drift toward what seems like firm ground comes a narrowing of attention and an abandonment of discussions about values” (Floden, 2005, p. 6). This is not to say that liberal education is neutral on all matters of morality. For example, individuals are encouraged (if only implicitly) to value rationality, tolerance/respect, democracy, fairness, etc., in public school settings. Moreover, liberal-democratic values promoted in public schools tend to be fairly consistent with values promoted in other social institutions.

It can be harmful to assume that values taught to students in public schools must remain fully consistent with those in other social institutions. If values taught in education were incongruent enough with values promoted in other

institutions, education may be perceived by some to undermine other important institutions, and this may in turn lead to increased social tension and lack of support for public education. For example, parents would not likely support an education system that promoted values radically different from their own. Will Kymlicka (2002) elaborates on this matter stating,

> There are difficult practical as well as philosophical questions … about the role of schools in inculcating virtues. On the one hand, schools could fill an important gap by teaching certain political virtues that are not guaranteed to be learned in families or private associations. But schools are part of the larger society, and it would be a mistake to think that they can function well if their goals are not supported by other social institutions. If parents and churches come to think that education offered in schools is fundamentally at odds with their beliefs, they will not support the schools, or their children's educational achievements within them, and may seek to undercut the school's messages. A truly 'detached' school, set over and against other social institutions, is unlikely to be effective (p. 310).

However, it should be questioned, do we really want to continue teaching individuals *only* those values that have historically maintained the status quo (which is unsustainable) if it is our mission to create a sustainable society? Moreover, should parents and other institutions be permitted to dissent on values learned in schools that contribute to a more sustainability society? A progressive education geared towards sustainability might conflict with particular values promoted in other social institutions, but the educational framework for sustainability presented here generally seeks to strengthen specific liberal principles rather than undermine them. As such, an educational framework for sustainability does not require the institution of education to be "truly detached."

Indeed, rationality, tolerance and democracy are all important values, and society should continue to promote them, but these traditional liberal values are *insufficient on their own* for bringing about a more sustainable society. We may recognize that liberal values are insufficient on their own because institutions like public education have been promoting these values for many decades and, yet, war, vast inequalities and environmental destruction continue to persist. For

example, "[i]n its World Development Report (2006) the World Bank recognizes that if China and India are removed from the statistical equations, then global inequality has risen over the last decades" (Robertson, Novelli, Dale, Tikly, Dachi & Alphonse, 2007, p. 36). Furthermore, Robertson et al. (2007) state, "there is a clear causal relationship between poverty and inequality and violence, crime and armed conflict" (p. xx). If society is going to change course to one that is sustainable, it will require explicitly teaching individuals how to live more sustainably. Moreover, such lessons should provide space for students to actually practice sustainable behaviours. Practice of this sort is extremely important, as it can help individuals gain the confidence they need to actually challenge unsustainable structures. Given that Canada and the US are currently unsustainable in many ways, sustainability-related values taught in schools will inevitably come into some conflict with those promoted in other social institutions.

The point of reforming the current education system would be to *intentionally* induce a critical magnitude of tension within society, where the introduced tensions would act as a catalyst for broader societal change toward sustainability. In this sense, social tensions should not always be seen as a bad thing. Governments typically take action to suppress tensions because tension is seen as a destabilizing force, and governments tend to fear instability. However, making only minor, incremental reforms to education (in order to maintain stability) is counterproductive when a society needs to make a *major* change. "[D]iscomfort is necessary for transformative change" (Moreno, 2010, p. 71). If done strategically, governments could draw on healthier forms of social tension to facilitate important changes.

Of course, societies change naturally, but tensions still play a large role in bringing about natural changes. For instance, institutions are forced to change when faced with "outside" pressures that cause social tensions (e.g., climate change). Moreover, it can be noticed that things like climate change are strongly linked to the unsustainable actions of humans, suggesting societies are often responsible for the tensions they face. Hence, societies can either wait to face the

tensions that result from their unsustainable actions (at which point they will be forced to deal with them), or they can intentionally introduce healthy tensions that help prevent negative consequences for current and future generations. In the former case, undesirable circumstances *force* individuals and groups to make changes. In the latter case, the state deliberately introduces tensions (vis-à-vis education reform) that lead to social change. It is argued that the latter case is more desirable because it is more of a bottom-up process and, thus, it is more democratic than simply imposing new laws and regulations (that would ensure sustainability) on people who would not understand the reasons behind such laws and regulations.

From a *relative* perspective it is easy to praise education in Canada and the US. However, from an *absolute* perspective, public education in Canada and the US is hardly worthy of such praise. For instance, even some of the most "educated" individuals still attempt to justify vast economic inequality and war as necessary and useful, while paying little attention to their impact upon the environment. This is problematic. Furthermore, this general observation is a reflection of the values (or lack there of) taught to individuals in public education. If individuals were to learn that sustainability is a paramount good, and that war, oppression, environmental destruction and gross acquisitiveness undermine sustainability, then these individuals would likely not be satisfied with a society that does little to resolve sustainability issues. "Education reform, in the shape of important changes in education policies, objectives, and structures, is an internal part of social transformation; it has repercussions beyond the educational system itself. In other words, the idea of education reform is linked to broader ideas of societal change" (Mazurek & Majorek, 2006, p. 278).

Surely, with sufficient exposure and practice, individuals would make use of the knowledge, skills and attitudes learnt in schools to question and eventually challenge unsustainable social structures. For example, individuals may start to become more aware of the hegemony of male-dominance in Canada and the US after learning about the many ways men continue to subordinate women. The more privileged segments of society (e.g., men, who consciously and

unconsciously enjoy the benefits of living in a male-dominant society) might not support an education system that explicitly promotes anti-oppression outcomes. Moreover, the privileged segments of society may even lobby the government to curtail the integration of anti-oppression content into curriculums in order to protect their many advantages. Despite this inevitable opposition, and in order for public schools to become more sustainable, schools must promote greater equality for women through explicit moral-educational lessons. This could entail teaching individuals about the history of feminism and what the movement seeks to accomplish and why.

At the very least, intergenerational transmission of racist, patriarchal and homophobic values could be minimized by teaching anti-oppression content in schools. “It is no good replying that education cannot do this, that this is asking too much of educational systems already under enormous stress. Our globalizing civilization must find ways to consider these all-important issues, or it will eventually self-destruct” (Loy, 2008, p. 116). “It is our task collectively to help rebuild [education] by reestablishing a sense of ‘thick’ morality, and a ‘thick’ democracy, are truly possible today. This cannot be done without … the building of large-scale counter-hegemonic movements that connect educational struggles to those in other sites and also assist both in creating new struggles and defending existing ones within educational institutions themselves” (Apple, 2006 [2001], p. 483).

The Cooption of Education by Economic Growth Theory

Since the introduction of the concept of human capital, a new economy—the knowledge economy—has come to dominate political discussions regarding how to best achieve and sustain economic growth. “The Human Capital World Model [of education] … is supported by many national leaders because it promises economic growth and development” (Spring, 2009, p. 16). Moreover, human capital theory has been readily taken up and promoted by powerful stakeholders in education (such as the World Bank, OECD, and the United Nations), making this neo-liberal purpose for education more or less ubiquitous in Canada and the US. According to Gary Becker (2006 [2002]), “Human capital is

by far the most important form of capital in modern economies," because upwards of 70% of capital in modern economies can be attributed to human capital (p. 292).

The unfortunate result of relying so heavily on education as a precursor for economic growth is that the process of learning itself becomes largely devalued. That is, today learning has taken on an increasingly instrumental role in society (instead of being viewed as an end in itself). "What should be noticed, however, is that *this approach ends up commodifying education in the same way that globalizing capitalism tends to commodify everything else*. Even as nature is raw material for manufacture, and manufacture is for the sake of profit, so any knowledge gained in education is raw material for taking exams, and those exams are to qualify for top universities, and then for well-paid jobs" (Loy, 2008, p. 112). The Greek philosopher Plato would have considered this an almost perfect example of a means-ends reversal in education. For example, in *The Good and the Allegory of the Cave* (2003 [1974]), Plato suggests that the ultimate good in life is the acquisition of knowledge. However, this is not to suggest that the process of learning should be the sole purpose of education and that education should not have an instrumental purpose. Instead, it is argued that instrumental and non-instrumental purposes should be more equally valued in public education. The problem is that, as education becomes more and more steeped in human capital theory, the balance between these two purposes of education becomes heavily skewed in favour of its instrumental purpose, which is to promote economic growth.

Another negative consequence of aligning education with human capital theory is that education's potential becomes severely limited. This is a consequence of governments seeing education as a capital investment. Human capital theory operates on the assumption that economic growth is always good, and so in theory the more that is invested in individuals, the greater the economic return. "In Schultz's (1961) initial formulation, the crucial benefits of investment in human capital are set out: where returns to other forms of capital are constant or decreasing, the development of human capital, primarily through education and

training, will constitute the prime source of economic growth" (Rees, Fevre, Furlong & Gorard, 2006 [1997], p. 927). However, the idea of diminishing returns applies to the domain of education as well. The idea is that education should be invested in *only up until a certain extent*, after which economic returns become marginal. This idea only reinforces the view that education is largely instrumental to economic growth and that education possesses little worth beyond this end. But, as Loy (2008) contends, "Education should not just prepare us for our economic role; it is what helps us to become fully socialized and fully human." A general goal for education should be "to help the community, and each of its participants, to flourish." (p. 114).

At what point does a nation begin to see diminishing economic returns from investments in the education sector? Figures regarding the public expenditure on education as a percentage of a nation's Gross Domestic Product (GDP) can help to illuminate such a threshold of spending. The figures for G20 nations are as follows:

Table 1

Public spending on education in 2008, total (% of GDP): World Bank							
1. Saudi Arabia	5.6	**6.** Brazil	5.4	**11.** South Korea	4.8	**16.** Japan	3.4
2. France	5.6	**7.** UK	5.4	**12.** Germany	4.6	**17.** Indonesia	2.8
3. United States	5.5	**8.** South Africa	5.1	**13.** Italy	4.6	India	N/A
4. Remaining EU (avg.)*	5.5	**9.** Mexico	4.9	**14.** Australia	4.4	Turkey	N/A
5. Argentina	5.4	**10.** Canada	4.8	**15.** Russia	4.1	China	N/A
* Figures were not available in 2008 for Romania, Greece & Luxembourg							

Certainly, every nation has particular circumstances that influence the amount of public spending on education, but it can be noticed that, in general, nations with large economies rarely spend more than six percent of their gross domestic product on education. In 2008, the only exceptions were Denmark (7.7%), Cyprus (7.4%), Sweden (6.8%), Belgium (6.4%) and Finland (6.1%), which all had shares larger than six percent. Moreover, in 2010 each of these nations had a human development index (HDI—a combined measure of a nation's education, health and income levels) over 0.8, which classifies them as having "very high human development." Most interestingly, however, was that in the same report,

Denmark, Sweden, Belgium and Finland were also amongst the 15 nations with the highest *inequality adjusted* HDI figures. What this means is that, when it comes to education, health and income, these nations were also the most equitable.

In Canada's urban centres, it is not uncommon for class sizes to be 30 students or more at the secondary level. Moreover, a full-time teacher has four classes, meaning that full-time teachers are often responsible for upwards of 120 students at any given time. This alone creates a huge barrier to effectively implementing "student-centred" educational practices in the classroom. Such practices are said to be progressive, as they require tailoring instruction to individual learners who have particular learning styles. But how is it possible for educators to provide individualized instruction for 120 students? The short answer is that, for most, it is not—or that it is possible only after making serious compromises. Similarly, it would be ideal to track the individual progress of each student, making sure to note areas where students are weak in order to provide them with supplementary instruction, but again this is hardly possible for educators who have limited time, resources and very large class sizes. By allocating a larger share of their GDP to education, Canada and the US could build more schools and hire more teachers, such that class sizes could remain low and progressive education practices more easily implemented in the classroom. Cuba has implemented policies that ensure smaller class sizes as well as the integration of modern educational technologies in every classroom. For example, the Cuban government has made the upper limit 15 students for all junior secondary classes and equipped each classroom with a television (Breidlid, 2007, p. 624). But, it has come at a cost, as Cuba spent 14.1% of its total GDP on education in 2008—almost three times more than Canada (World Bank, 2008).

Another concept that has emerged within human capital education theory is the idea of lifelong learning (LLL). Emphases that have been placed on LLL can be seen as a response to a trend in capitalism whereby the instruments of production are constantly revolutionized. When the instruments of production are continually revolutionized, the relations of production, as well as those of society,

must also constantly change. "Modern societies are highly mobile; as technology and skills change so too must workers uproot in order to seek new employment" (Lauder, Brown, Dillabough & Halsey, 2006, p. 8). Considering this and the shift in responsibility for employability from state to individual spurred by neo-liberalism, it is most suitable for individuals to maintain a reflexive stance towards job related knowledge, skills and attitudes (KSAs).[1] This is the central educational goal related to neo-liberalism and the knowledge economy—to help individuals build and acquire the knowledge and skills needed to improve their employability status.

Critics of organizations like the World Bank and OECD often make these organizations out to be "monolithic forces shaping global education discourses and practices" (Spring, 2009, p. 65). And, even though this view is misleading, it should be noted that these organizations *do* in fact wield a considerable amount of power and influence within educational circles. For instance, "[t]he World Bank is the leading global investor in education and is linked through extensive networks to other worldwide organizations" (Spring, 2009, p. 29). What is more, organizations like the World Bank are major proponents of human capital education models that tend to affirm education as subordinate to economic growth, and thus have been known to directly support public-private partnerships and LLL initiatives in education. "Nothing better expresses the World Bank's commitment to the idea of a knowledge economy and the role of education in developing human capital then its publication *Lifelong Learning in the Global Knowledge Economy*" (Spring, 2009, p. 39).

As the discourses and rhetoric of public-private partnerships and LLL increasingly filter down to the level of individual schools, the penetration of

[1] The acronym "KSA" typically refers to "knowledge, skills and abilities," but here it is intentionally used as "knowledge, skills and *attitudes*." This is done for two reasons. First, the thesis is largely concerned with morality, and attitude (similar to morality) is chiefly concerned with values. Secondly, the author thinks that "skill" and "ability" are not distinct enough concepts to warrant using them as such.

corporations into public education becomes ever more apparent. Even the UN, which is consistently framed as a check-and-balance for globalizing capitalism, can be considered a supporter of human capital models of education given their support for public-private partnerships in education. For example, in a United Nations Educational, Scientific and Cultural Organization study (UNESCO, 2005), it was suggested that the private sector could improve national school systems through "financing, managing, and provision of educational services and/or materials" (Bertsch, Bouchet, Godrecka, Karkkainen & Malzy, 2005, p. 12). An important question is, if organizations like the UN support inroads for corporations into education, then who is left with enough power to keep the corporate influence on education in check?

Considering there exists a lack of organizations with enough power to act as a check-and-balance for corporate influence in public education, schools have become increasingly sympathetic to the goods and services corporations are more than willing to provide. Where, initially, human capital theory assigned education an indirect role in stimulating economic growth, it has eventually come to support direct use of the public school system by corporations to increase profits. "In their attack on the creeping influences of the market on Canada's educational system, Barlow and Robertson (1994) claim that corporate leaders have three goals: first, 'to secure the ideological allegiance of young people to a free-market world view on issues of the environment, corporate rights and the role of government'; second 'to gain market access to the hearts and minds of young consumers and to lucrative contracts in the education industry'; and third, 'to transform schools into training centres producing a workforce suited to the needs of transnational corporations' (p. 79)" (In Fenwick, 2004, p. 178). Moreover, if the influence of powerful corporations in public education is largely left unchecked, public education systems are likely to adopt corporate values over time. A further consequence of corporate influence in education is that a more equal balance between instrumental and non-instrumental purposes of education may never be achieved.

What Should Economic Sustainability Entail?

The fundamental premise of what economic sustainability should entail is that capitalist rights, values, and forms of development are unsustainable (e.g., the right to private property, competition, and viewing progress as a function of technological sophistication or level of consumption). The argument for this normative account of economic sustainability also relies on another fundamental premise, which is that contemporary liberalism and capitalism are *not* the same thing, even though they share a similar orientation with respect to the prioritization of freedom and individualism. The fact that contemporary liberalism and capitalism are distinct in certain ways (i.e., when it comes to valuing competition and private property rights) creates opportunities for problematizing capitalism *within* public school curriculums. Otherwise, teaching anti-capitalist values could only take place in a "truly detached" school, and it has already been suggested that parents and other social institutions would not likely support a detached institution. In other words, anti-capitalist values could only be effectively promoted in public schools if core liberal principles were not undermined in the process. As such, it must be shown that incorporating anti-capitalist curricula into public education would *not* undermine specific liberal principles.

Competition. It can be noticed that liberalism and capitalism interpret competition in different ways. For instance, though liberal-democratic societies, such as Canada and the US, generate a wealth of opportunity, it is not always guaranteed that citizens will gain access to such opportunities. After all, liberal-democratic governments do not claim there exists an infinite pool of opportunity from which citizens can freely draw. Such a reality implies that citizens will likely have to compete for certain opportunities. That is, from the liberal perspective, competition is sometimes a necessary consequence of society. However, liberals do not go as far as to suggest that competition itself ought to be valued. From the perspective of most capitalists, on the other hand, competition is something that should be valued. The typical capitalistic rhetoric claims that competition should be valued because competition enhances the efficiency of production, and the

more efficient production is, the greater service and profits tend to be. Moreover, competition is said to help spur innovation and drive the cost of commodities down, and this is said to benefit consumers. But, the hegemony of capitalism (and thus the extensive promotion of competition) is so pervasive in Canada and the US that it seems controversial to even suggest trying to make social processes less competitive.

Blind promotion of competition poses a threat to equal opportunity and self-determination, which are both quintessential liberal goals. Hence, it would be in the best interest of liberals to limit competitive situations. For example, a system that typically rewards those who are more competitive is *unfairly* biased against those in society who are naturally or otherwise less competitive. Consequently, if an individual is born with qualities or traits that render them less competitive, then they are likely to face lesser opportunities to secure social merits and rewards. This is likely to have negative impacts on the success of women relative to men assuming that, in general, men are more competitive than women. For example, Dutch primatologist and evolutionary psychologist, Frans de Waal (2009), mentions that cross-cultural studies confirm that men, regardless of geographical location, tend to be the more competitive (and/or less empathetic) sex, suggesting this difference is not just cultural, but genetic as well (p. 214). However, even if there are biological tendencies for males and females, this in no way justifies biological determinism because morality is a human construct and humans can be constructed in ways contrary to what is typically assumed to be "natural." Nevertheless, there may be biological constraints on what is culturally possible. I raise this as an issue that is not straightforward, even though it is often assumed to be by those arguing for either purely biological or cultural accounts. The right to private *productive* property also gives some individuals (i.e., those who are owners of productive capital) an unfair advantage over others who do not possess productive assets. As a result, an argument can be made to suggest that the right to private productive property also undermines the individual right to equal opportunity and self-determination.

Private productive property. Suggesting that the right to private productive property is a capitalist value and not a liberal value is controversial, as many liberals have traditionally supported property rights. For example, John Locke (1978 [1689]) defended such a right, suggesting that the common lands should be enclosed (i.e., privatized) "at least where there is enough, and as good left in common for others" (p. 27). First, it is often argued that enclosing the commons would have the beneficial effect of preventing what Garrett Hardin (1968) referred to as "tragedy of the commons" (Kymlicka, 2002, p. 116). Second, as private productive property is a form of capital, it can be used by those who own it to generate more capital, such as income and/or commodities, that in turn facilitate the pursuit of personal goals. The second argument refers to the general "importance of income in expanding people's freedoms. Income is critical in determining people's command over the resources necessary to gain access to food, shelter and clothing and in making possible much broader options—such as working in meaningful and intrinsically rewarding activities or spending more time with loved ones" (UNDP, 2010, p. 4).

Most interestingly, contemporary liberal theory (especially that of Rawls) leaves room for interpreting liberalism as a philosophy that does not require traditional property rights. In fact, Rawls' theory seems to suggest that current distributions of productive property are unfair. For Rawls and most other liberals, inequalities are only justifiable given a state of equal opportunity, and *the provision of equal opportunity first requires that individuals start their life with a more or less equal portion of society's resources*. But, how can this be possible when some individuals legally inherit productive capital from others (e.g., family members), while others inherit no such capital? Questions like this inevitably motivated Rawls to endorse what he called a "property-owning democracy" (Rawls, 1971, p. 274). For Rawls, if endowments were *initially* more equal, then "no one need be servilely dependent on others and made to choose between monotonous and routine occupations which are deadening to human thought and sensibility" (Rawls, 1971, p. 529). Indeed, Rawls *did* support property rights, but "[i]t might be that a full implementation of Rawlsian … justice would require

substantial changes in the way we define and allocate property rights" (Kymlicka, 2002, p. 95).

The redefinition and reorganization of current property rights along Rawlsian lines would inevitably require redistributing productive property from the elite (who currently own the vast majority of productive property) to those individuals with little or no property. The elite would likely see the redistribution of their wealth as an act of class-warfare, and inevitably they would use their economic and political power to thwart such attempts. However, as students are taught to become sensitive to unfair/oppressive societal structures, they will see more clearly that current property rights are biased in favour of the wealthy. Seeing bias as inherently wrong, students might attempt to rectify the injustice by putting pressure on their governments to make current property rights fairer. This goal would be most easily accomplished by voting for political parties that support redistribution. The elite, being a minority themselves, remain vulnerable to democratic social structures despite their immense power. It is from this Rawlsian perspective of fairness that private productive property (as the means of production in capitalism) could be challenged within public schools.

What Should Social Sustainability Entail?

As the conversation of sustainability moves from the ecological domain to social and economic domains, claims of what it means to be sustainable become less empirical and thus rely more heavily on normative arguments. Hence, though social and economic sustainability can be interpreted in a myriad of ways, particular normative accounts for what social and economic sustainability should entail are given here. Normative accounts are needed *to fashion practical standards and goals related to sustainability*, which are needed to meaningfully implement an educational framework for sustainability. More detailed arguments that support such accounts will be given in later chapters.

The normative account presented here of what social sustainability should entail is that war and oppression (e.g., poverty, racism, discrimination against women, sexual minorities, transgendered and disabled peoples) are unsustainable. War and oppression are argued to be unsustainable for many reasons, but the

central reason is that they violate important liberal principles. Oppression is illiberal in a Rawlsian sense, meaning that those who experience oppression are often treated *unfairly*, and it is also used in an egalitarian sense, meaning that those who experience oppression are often assigned a lower moral status relative to others. War is illiberal if only for the reason that liberals typically support non-violence and view conflict as undesirable (Gutmann, 2007 [1993], Moreno, 2010).

Tolerance is valued and promoted by liberals, but tolerance (as well as other liberal values) lack the efficacy to *overcome* issues related to oppression, such as racism. First, liberal values could stand to be more effective at reducing social inequalities if they were taught *explicitly* in schools. Liberal values are largely *implied* in school practices and processes in order to minimize inculcation. In liberal theory, for example, it is ideal for individuals to choose (as much as possible) who they want to be and how to best achieve this for themselves, and inculcation is said to undermine this process (Feinberg, 2007, [1992]). Second, while making liberal values (like tolerance) more explicit in schools would likely help make education more socially sustainable, this would still not be enough to counteract negative social realities, such as war and oppression. For instance, Martin Luther King Jr. (1991) argued that tolerance is not enough to overcome issues related to racism. He stated, without total integration of African Americans into the full range of public life, desegregation is "empty and shallow" and leads to "physical proximity without spiritual affinity," where "elbows are together and hearts are apart" (p. 118). Lawrence Blum (2007 [2002]) agrees with King and places the problem of tolerance in the context of education, suggesting that "The moral, civic, and personal sensitivities, concerns, and abilities *must be deliberately taught*; students do not acquire them through mere contact, in school, with members of other ethnoracial groups" (p. 277, emphasis added). Tolerance is passive (like other liberal values), and therefore does not require individuals to actually value the other *so long as the other is tolerated*. An educational framework for sustainability would explicitly teach individuals to value all others, even those individuals who come from radically different cultures. Teaching individuals to value others could also help to mitigate negative inter-cultural

tensions. As a result, teaching individuals to value others would also have the effect of reinforcing educational content related to non-violence.

What is Meant by "Environmental Sustainability"?

In order to implement useful standards of evaluation for collective, sustainability-related goals, the distinction between fact and value must be to a large extent rejected (Unger, 1975). And, even though doing away with the distinction between fact and value is likely impossible from a philosophical standpoint, the need for sustainability requires that societies at least attempt to fashion acceptable standards for sustainability. In this sense, environmental (i.e., ecological) sustainability is the least contentious pillar of sustainability because ecology is more of a science. This makes matters dealt with in the context of environmental sustainability more empirical than both the social and economic pillars of sustainability. Hence, many standards of evaluation already exist to determine whether or not a society is environmentally sustainable. The World Wide Fund for Nature (WWF), for example, has suggested that environmental sustainability can be conceptualized by comparing the consumption rate of humans to the biocapacity of the earth, which is referred to as humanity's "ecological footprint." "The Ecological Footprint measures humanity's demand on the biosphere in terms of the area of biologically productive land and sea required to provide the resources we use and to absorb our waste. In 2005 the global Ecological Footprint was 17.5 billion global hectares (gha), or 2.7 gha per person (a global hectare is a hectare with world-average ability to produce resources and absorb wastes). On the supply side, the total productive area, or biocapacity, was 13.6 billion gha, or 2.1 gha per person" (WWF, 2008, p. 14). Thus, according to the WWF, humanity's ecological footprint is already unsustainable, as it would require more than one planet to support current levels of consumption into perpetuity.

While there are still many questions surrounding the accuracy of predictions related to whether or not humans can sustain such high levels of consumption (say, due to questions surrounding the potential for technological innovation), there are also many conclusions regarding environmental sustainability that are

approaching scientific consensus. For example, humans *know* that the cause of high extinction rates of species all over the world is anthropogenic (i.e., extinction rates beyond what has been historically documented in fossil records; Myers, 1989). What is more, through systems/complexity theory, humans *know* that, when systems become less and less complex, they eventually lose their resiliency (Homer-Dixon, 2000). Hence, humans *know* that loss of biodiversity (a process whereby ecosystems become less complex) is likely to affect the majority of life on earth, including humans, in adverse ways. Climate change, whether mainly anthropogenic or not, can only ever exacerbate this persistent dilemma.

Many people feel that the solution to such a dilemma will be found through technological innovation. However, to put faith in future technological innovation is problematic because matters of faith (unlike those of knowledge) cannot be proven or disproven. Instead, the precautionary principle should be invoked "[i]n order to protect the environment," and "shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation" (Rio Declaration, 1992, Principle 15). Considering that continued environmental degradation and destruction will certainly jeopardize a large portion of life on earth, and that timelines for technological innovation are greatly uncertain, the need for action to prevent further ecological damage is imperative. As such, there is a crucial need for the integration of learning outcomes into school curriculums that teach individuals about responsible consumption.

> [I]f public space is to be experienced not as a private affair, but as a vibrant sphere in which people learn how to participate in and shape public life, then it must be shaped through an education that provides the decisive traits of courage, responsibility, and shame, all of which connect the fate of each individual to the fate of others, the planet, and global democracy.
>
> -Henry Giroux citing Cornelius Castoriadis (2007, p. 63)

Chapter Two: Liberalism, Individualism and Public Education

Due to the pressures of globalization as well as standards set by developed nations for continued economic growth, sustainability has become an important concept. One might even suggest that sustainability has always been an important (albeit implicit) goal for society. However, considering that per capita rates of consumption in developed nations now exceed biological limits (i.e., more than one planet would be required to sustain current rates of consumption), it has been necessary to make the concept of sustainability more explicit. Sustainability usually takes on an ecological connotation, but economic and social factors are equally important when considering the question, "What does it mean to be sustainable?" Therefore, we must not only question what it means to be sustainable in an ecological sense, but also in a social and economic sense. Competing interpretations to the question, "What does it mean to be sustainable?" will inevitably stimulate much debate. Regardless of disagreements between competing interpretations, Canada and the US must work hard to fashion standards for sustainability that will serve as the basis for future institutional reform.

In this chapter, the role liberal theory plays in undermining educational goals related to sustainability will be analyzed. Liberal theory is of particular interest, as liberal theory is fundamental to the purpose, aims and policies of public education. The two aspects of liberal theory argued to obstruct the advancement of sustainability related goals in education are:

1. The morally neutral character of public education (and of liberal theory in general).
2. Liberalism's prioritization of the individual.

First, it must be understood that moral neutrality and individualism are both logically implicated in general liberal principles, such as freedom and equality.

The Historical Origins of Liberal Principles

Liberals, who typically place much value on rationality, often assume that liberal principles are arrived at on the basis of rationality alone. In other words, liberal principles are often assumed to be the product of objective, *a priori* reasoning—the pinnacle of all human abilities according to philosophers like Immanuel Kant. Similar to Enlightenment philosophers, contemporary liberal thinkers continue to believe that ideas and concepts can be universalized (Young, 2006, p. 738). However, care-theorists are quick to remind liberals that ideas and concepts originate in particular conditions and can therefore be considered situated and non-universal. Care-theory suggests that, though ideas and concepts are often believed to be universal, once put into practice, these "abstract" ideas inevitably end up representing some peoples and groups better than others (Noddings, 1999, introduction).

Instead of seeing liberal principles as a product of pure (a priori) reason, they should be see as the product of particular material conditions. That is, liberal principles should be seen as having a historical (rather than an ahistorical) basis. More specifically, the emergence of liberalism should be understood as a response to feudalism. In feudalism, rigid social hierarchies were largely, if not wholly, predicated on religious grounds. Consequently, the social structure of feudalism took the form of a rigid hierarchy in which individuals were unable to escape their social position at birth. For instance, "agrarian societies in Europe during the Middle Ages … required the daily farm labour of most people to support the small aristocracy. In this context, noble and serf learned to view occupation as rightfully determined at birth and any person's work as a matter of moral responsibility. In short, caste systems always rest on the assertion that social ranking is the product of a 'natural' order" (Macionis & Gerber, 2002, p. 254). Those from lower social classes did not challenge their position in society, as to do so would have required defying God's will. So long as religious reasoning dominated society, rigid social hierarchies remained intact.

The developments of Enlightenment thinkers quickly began to undermine religious ideals that placed humans firmly under the will of God, contributing to the erosion of feudalism and its rigid social hierarchies. Moreover, during the transitional period between feudalism and liberalism/capitalism, the nobility still appropriated much of the capital generated by non-nobles. The merchants and craftsmen who generated large portions of this capital began to question the legitimacy of the nobility and eventually used science to dismantle barriers to greater personal and economic self-actualization. In this respect, merchants and craftsmen were a revolutionary class. This class sought to rid themselves of their imposed limitations and embrace newer ideas related to freedom and equality.

The Age of Enlightenment embodied the essence of this societal shift towards freedom and equality. In playing with ideas of freedom and equality, Enlightenment thinkers developed secular morals and the foundations for liberalism, capitalism and modern science, which still underpin much of Canadian and US society today. This marked the beginning of a new epoch in history—that of liberal/capitalist society. The central issue, however, was that ideas of freedom and equality were thought to be universal and objective. Instead of seeing the ideas of the Enlightenment period as universal and objective, Marx situated them in the material world as a response to life conditions experienced in feudalism.

> If now in considering the course of history we detach the ideas of the ruling class from the ruling class itself and attribute to them an independent existence, if we confine ourselves to saying that these or those ideas were dominant, without bothering ourselves about the conditions of production and the producers of these ideas, if we then ignore the individuals and world conditions which are the source of the ideas, we can say, for instance that during the time that the aristocracy was dominant, the concepts honour, loyalty, etc., were dominant, during dominance of the bourgeoisie the concepts freedom, equality, etc. The ruling class itself on the whole imagines this to be so. This conception of history, which is common to all historians, particularly since the eighteenth century, will necessarily come up against the phenomenon that increasingly abstract ideas hold sway, i.e. ideas which increasingly take on the form of universality. For each new class which puts itself in the place of the one ruling before it, is compelled, merely in order to carry

> through its aim, to represent its interest of all the members of society, put in an ideal form; it will give its ideas the form of universality, and represent them as the only rational universally valid ones (Marx, 1932 [1845-1846], Illusion of the Epoch Section).

According to Marx, the bourgeoisie failed to dismantle ideological hegemony upon succeeding the feudal order. Therefore, the transition from the feudal epoch to the liberal/capitalist epoch marked not the destruction of hegemonic conditions, but instead a shift towards a new ideological hegemony based on Western-European, *liberal* ideas of freedom and equality (as opposed to those of "honour, loyalty, etc.").

Freedom and Equality

When looking to understand why institutions have been set up in particular ways in Canada and the US, one need not look much further than the historical emergence of liberalism from feudalism. For example, public education tends to be arranged around principles of freedom and equality in liberal-democracies. When it comes to the principle of freedom, the institution of education must generally refrain from teaching students values/morals that go beyond "certain intellectual habits, dispositions, and reasoning skills necessary for the learner to reach moral maturity" (Siegel, 2007 [1988], p. 441). In general, students are taught to value what might be called "democratic virtue, the character that is necessary for a flourishing constitutional democracy" (Gutmann, 2007 [1993], p. 164). Education systems that are truly liberal aim to teach children *about* different cultures and lifestyles, but must be careful not to encourage students to *value* them. For example, Appiah (2007 [1996]) says that public schools "should not teach particular traditions and religions; though, of course, they should teach *about* them" (p. 261). Amy Gutmann reiterates this sentiment by saying, if "freedom of choice is the paramount good," then "we must educate children so that they are free to choose among the widest range of lives" (p. 160). The KSAs taught to students in various school subjects share one thing in common, which is that they help prepare students to choose from the "widest

range of lives" as autonomous individuals. Choice and opportunity both share a positive relationship with freedom.

Today, within the contemporary (neo-liberal) state, the traditional goal of facilitating autonomy takes a different form. Instead of focusing on turning out autonomous individuals, the educational institution under neo-liberalism has shifted the focus from general autonomy to autonomy through employability. "In classical liberalism, the individual is characterized as having an autonomous human nature and can practice freedom. In neo-liberalism the state seeks to create an individual who is an enterprising and competitive entrepreneur. … [S]uch a shift involves a change in subject position from 'homo economicus,' who naturally behaves out of self-interest and is relatively detached from the state, to 'manipulatable man,' who is created by the state and who is continually encouraged to be 'perpetually responsive'" (Apple, 2006 [2001], p. 473). The neo-liberal approach to autonomy is only slightly different from the classical liberal approach, but they both heavily prioritize "subjective values" over more "perfectionist values" common in communitarian societies.

According to Roberto Unger (1975), liberal theory is fundamentally at odds with ideas related to "objective goods." Unger states, liberalism must always be "hostile to the classic idea of objective good" (p. 77). "Only by rejecting the principles of subjective value and of individualism could we allow for the possibility of communal values. And only by repudiating the distinction between fact and value, could we go from the mere description of these communal values to their use as standards of evaluation" (pp. 102-103). Will Kymlicka (2002) supports Unger's conclusion that subjective and objective values are at odds with one another by stating, perfectionist societies "claim that certain ways of life should be promoted, while less worthy ways of life should be penalized. This is unlike liberal or libertarian theories, which do not try to encourage any particular way of life, but rather leave individuals free to use their resources in whatever ways they themselves find most valuable" (p. 190). In liberal society, where individuals are entitled to choose their own concept of the good life, it seems quite unlikely that most individuals would support a political system based on

shared ends. But, it also seems intuitive to think that *all people value sustainability* (whether explicitly or implicitly). That is, it is intuitive to think most people consider social and economic marginalization and environmental destruction to be morally undesirable.

While it may be less clear whether or not the average rate of consumption between developed and developing nations is sustainable, what is known for sure is that developing nations (many of which currently consume at sustainable rates) aspire to consume at rates on par with developed nations (i.e., rates that are unsustainable). What is more, individuals in developed nations rely heavily upon disparities in access to income and other resources to sustain luxurious and wasteful lifestyles. Such disparities between developed and developing nations will continue to exist for some time, but research indicates that rates of consumption of developing nations are already quickly on the rise (International Energy Agency, 2012, p. 19). Once nations, such as China and India, become more developed, individuals in more developed nations will be forced to acknowledge their freeloading. Moreover, from a liberal-egalitarian point of view, there should be equal opportunity *between* nations as well as within nations (Kymlicka, 2002, p. 268). Consequently, denying others opportunities to prosper—opportunities that many in Canada and the US have had the privilege of enjoying—is illiberal and cannot be reasonably justified. This brings attention to another important principle within the liberal tradition, which is equal opportunity (or equal educational opportunity within the context of education).

Liberal theory stipulates that equal opportunity is valuable because it helps lessen the role endowments (i.e., circumstances) play in individual achievement. The same can be said about schooling. "[I]t is evident that the education of our children should not depend upon the chance of their having been born here or there, of some parents rather than others" (Durkheim, 2006 [1956], p. 79). Recall that in feudalism an individual's circumstance likely determined their moral worth and thus position in society. This meant that achievement in feudalism was overwhelmingly sensitive to endowments and insensitive to ambition. Merchants and craftsmen eventually came to resent such a system that limited their wealth,

social positioning, and lives more generally. As a result, they fought to reconfigure the achievement model to one that was less sensitive to circumstance and more sensitive to ambition. That is to say, they favoured a model of achievement that made opportunities more or less equal for individuals. Hence, equal opportunity, like other liberal principles, can be viewed as a product of history, rather than a product of pure reason.

By lessoning the role endowments play in individual achievement, achievement is more accurately reflected in individual effort, ability and choice. Every individual is born into different circumstances, some of which are far more advantageous than others. For example, it is not hard to imagine that white, able-bodied, straight, males born into wealthy families in the US generally experience greater opportunities than do black, disabled, lesbians born into poor families in sub-Saharan Africa. A system based on merit is required to ensure that "[s]uccess (or failure) will be the result of our own choices and efforts. Hence whatever success we achieve is 'earned', rather than merely endowed on us. In a society that has equality of opportunity, unequal income is fair, because success is 'merited', it goes to those who 'deserve' it" (Kymlicka, 2002, p. 58). This is the same reason why education systems in liberal democracies base achievement on merit. "The idea of meritocracy is the dominant aspiration that has drawn all the stakeholders in education towards a consensus because in socially mobile industrial societies it opens the way to educational and occupational success based on individual achievement rather than inherited privilege" (Lauder, Brown, Dillabough, & Halsey, 2006, p. 9).

With respect to liberal values, equality of opportunity remains a valuable idea worth pursuing, but keeping curricular content morally neutral to prioritize subjective values is problematic when considering pressing sustainability issues. This, of course, is not to suggest that subjective values are wholly problematic. To reject an individual's right to choose the lifestyle of his or her preference would be to reject freedom of choice more generally. It is particularly when it comes to the choice of whether or not to be sustainable that choice should be restricted. In this sense, the purpose, aims, and policies of education should take sustainability

into consideration as a common value or good. Thus, on one hand, sustainability is an objective good and a particular way of life that should be promoted in schools. On the other hand, unsustainable lifestyles should be devalued, not only through the hidden curriculum, but also explicitly in classrooms. Upon leaving high school, students should leave with the understanding that *it is morally unacceptable to be unsustainable*.

Some individuals might interpret the introduction of moral outcomes in education as a threat to free choice, but that interpretation significantly downplays the role sustainability plays in protecting the free choices of future generations that will face the economic, social and environmental hardships created or worsened by previous generations. Indeed, unsustainable choices made today will inevitably constrain the choices of future generations. The free choice of citizens will have to be restricted whether it is done deliberately (through an educational framework for sustainability), or to overcome pressing social/economic tensions and environmental issues. Either way, citizens in Canada and the US will have to make sacrifices to deal with their unsustainable lifestyles. An educational framework for sustainability represents a *proactive* solution to sustainability issues.

To suggest that moral outcomes in education represent a threat to free choice is also to suggest that free choice should take moral priority over sustainability. It is argued here that sustainability takes moral priority over free choice, if only very slightly. In fact, *nothing* should be morally prior to sustainability. For example, how can we claim that free choice should take moral priority over sustainability if ignoring sustainability-concerns results in the loss of life for some individuals? Integrating a framework for sustainability into public schooling would undoubtedly restrict some individual free choice, but individuals would still largely be able to choose the lifestyle of their preference; their choices, however, would be constrained to the domain of sustainability. “[S]chools should teach the young what is good and evil … and how to make all these moral discriminations” (Appiah, 2007, p. 260). This echoes the words of Nel Noddings (2005 [1993]) who suggests, “Today it is essential that the moral purposes of

schooling be restored" (p. 65). Indeed, to influential thinkers like Durkheim and Dewey, the moral development of individuals was seen as the most important aspect of education (Durkheim, 2006 [1956]; Guo, 2008, p. 76).

Liberalism and Individualism

Similar to the principle of freedom, the principle of equality can be understood historically. Furthermore, the emphasis liberal theory places on individualism can be logically derived from the principle of equality. For the most part, feudalism preceded individual rights and, as a result, individuals had no significant way of protecting themselves against coercion (from the nobility or "tyranny of the majority"). This had many negative implications for non-nobles. For example, in feudalism the nobility were believed to have higher moral status, so they could "legitimately" expropriate resources from non-nobles. This was frustrating for non-nobles who remained subject to the will of the nobility during periods when scientific developments began to undermine moral hierarchies. This began to change as liberal/capitalist society overtook feudalism and its many circumstance-based constraints. "[L]iberal democracy upholds the belief in the predominance of individual rights over collective rights, which implies a serious recognition of the potential tyranny of the majorities" (Torres, 2006 [1998], p. 544).

Theories of justice, which became increasingly common during the Enlightenment, generally use moral equality as a starting point. And, while explanations that justify moral equality have historically tended to differ from one another, such explanations share a common position in opposition to coercion. "Since the Enlightenment, the concept of justice has usually been tied to the notion of rights and impartiality. Within this contemporary framework, philosophers and political thinkers have disagreed about the origins or grounding for rights, some contending that rights are God given, others that they belong somehow naturally to human beings, and still others that they are products of reason" (Noddings, 1999, p. 8). For instance, "John Locke, the most important philosopher of early capitalist modernity, began by accepting the medieval Christian view that God originally gave the earth and its products to all people in

common. Yet, Locke contended, human individuals had the right to preserve their own lives and, therefore, had rights to the subsistence (food, drink) derived form the earth" (Peet & Hartwick, 2009, p. 27). "'[H]umane' theories of justice focus on what we deserve simply because we are members of the human species. Since we are all equally human, our claims as members of the species are all equal" (Jencks, 2007, p. 245).

In the West, the ideas of the 18th century philosopher Immanuel Kant have been most influential. One of the ideas central to Kant's philosophy is that humans should be seen as ends in themselves. This principle was used to justify a political system based on individual rights. Indeed, the law system that upholds individual rights is largely premised on the idea that individuals are ends in themselves. "This 'Kantian principle' requires a strong theory of rights for rights affirm our 'separate existences', and so take seriously 'the existence of distinct individuals who are not resources for others' (Nozick 1974: 33)" (In Kymlicka, 2002, p. 108). Marx was also keenly aware of this. He stated, "the right of man to freedom is not based on the union of man with man, but on the separation of man from man. It is the right to this separation" (Marx, 1977, p. 53).

The continuous affirmation of our "separate existences" in a system based on individual rights is likely to have reinforced individualism. A major consequence of focusing so much on the individual is that individualism has become over-emphasized. Use of the terms "prioritization," "over-emphasis" and "focus" intend to communicate the non-existence of purely individualist or collectivist societies. Instead, it should be understood that all societies make use of both individualist and collectivist principles. Individualist societies simply value the principles of individualism *more* than collectivism, and the opposite is true for collectivist societies. For example, Joel Spring (2009) mentions that individualists have a tendency to be self-directed, are more likely to have goals that fit personal needs, and place greater value on personal success and achievement. Communitarians on the other hand have a tendency to be directed by tradition and conformity, are more likely to have goals that fit the needs of others, and place greater value on group success and achievement (p. 41).

In Canada and the US, however, individualism has become so grossly over-emphasized that the idea of community has been significantly devalued and, in many cases, degraded (e.g. continuous cuts to social spending). The market economy has also placed much strain on communities through "the creation of a mobile labor force and increasing transiency," which has had the result of "[sundering] the ties of individuals to communities" (Katz, 1976, p. 392). An unintended result of basing a political system on individual rights is that individuals can use their rights to avoid certain social obligations—a fear common to more communitarian societies living in liberal-democratic nations (e.g., the Amish). "Durkheim believed that the lack of solidarity and integration in modern society sprang from an excessive individualism—from what he termed 'egoism' and 'anomie' which arise when private interests and greeds burst forth beyond social regulation and group controls" (Hargreaves, 1980, p. 190). If the Enlightenment theorists who championed the tenets of individualism were alive today, they would immediately recognize the deepening imbalance (especially in English speaking North America) between social and environmental responsibility and the pursuit of personal preferences. The theories of Kant, for example, *focused* on duty/responsibility and how such duties ought to take shape in society to counterbalance the egoistic drive of individuals, which was assumed to be natural and immutable (Blackledge, 2008).

Liberals often view social obligations as an impediment to personal freedom. But, such a viewpoint tends to assume that humans are first and foremost autonomous agents and largely ignores the more relational aspect of human nature. "In a basic and crucial sense, each of us is a relationally defined entity and not a totally autonomous agent. Our goodness and our wickedness are both, at least in part, induced, supported, enhanced or diminished by the interventions and influence of those with whom we are related" (Noddings, 1988, p. 222). This definition poses a serious challenge to "the liberal notion that agency simply represents unconstrained action" (Guile, 2006, p. 707). In this respect, Charles Tilly (2006) raises an interesting question: "People rarely accomplish what they consciously plan, and constantly find events unrolling differently from

what they anticipated. Why, then, do people's descriptions and explanations of social processes overwhelmingly emphasize conscious deliberation?" **(**Preface**)**.

Just as it is wrong to assume that individual actions are wholly determined by rational choices, it is equally wrong to assume that individual actions are wholly determined by external events and structures. For, even though organisms are relational entities, it is also true that, to a certain extent, "organisms *have a life of their own*; they exercise control over themselves and thus are at least to some extent free of both the agency of others and the action of the world more generally" (Wilson, 2005, p. 63). Individuals/objects and the relationships that connect them to one another are inextricably linked. The concept of one (relationship) implies the other (individuals/objects) and, thus, humans are both relational entities and individuals. For this reason, humans cannot be considered fundamentally (or even mostly) autonomous, nor can they be considered mere products of their environments.

Figuring out the extent to which human actions are a function of social structures (versus rational choices) is often nearly impossible to determine; hence, accounts that suggest actions are better explained by choices *or* external factors remain philosophical. It is interesting, then, to consider why Canada and the US have come to privilege the view that individuals are rational agents primarily concerned with maximizing utility. Moreover, privileging the isolated, "homo economicus," interpretation of humanity seriously takes for granted the

> vast knowledge of human behavior accumulated in anthropology, psychology, biology, or neuroscience. The short answer derived from the latter disciplines is that we are group animals: highly cooperative, sensitive to injustice, sometimes warmongering, but mostly peace loving. A society that ignores these tendencies cannot be optimal. True, we are also incentive-driven animals, focused on status, territory, and food security, so that any society that ignores those tendencies can't be optimal, either. There is both a social and a selfish side to our species (de Waal, 2009, p. 5).

Overemphasizing Individualism Threatens Sustainability

The concepts of relationship and community are implicit to sustainability. In a fundamental sense, sustainability is about caring for the relationships individuals have to the economy, society, and environment in such a way that the well-being of individuals embedded in these systems (whether human or non-human) is nurtured into perpetuity. And, because the concept of sustainability relies so heavily upon the concept of relationship, liberal theory must place greater emphasis on individual responsibility to others and the environment in order to support the implementation of social goals related to sustainability. "[W]e must redefine human agency as a phenomenon which is not simply concerned with the exercise of freedom in the struggle for political status, but as a bounded and gendered construct which can only exist in relation to other social structures and human relations" (Guile, 2006, p. 715).

The need for a better balance between individualism and social/environmental responsibility has major implications for education systems in Canada and the US that are based on liberal theory. That is, if liberal theory overemphasizes individualism, and liberal theory underpins education in liberal democracies, then a strong emphasis on individualism should also be expected to permeate education in Canada and the US. An overemphasis on individualism is particularly what David Hargreaves (1980) identifies in his article, "A Sociological Critique of Individualism in Education." In the article, Hargreaves states, "our educational system is so deeply imbued with and obsessed by what I shall call the *cult of individualism* that the social functions of education have become trivialized" (p. 187). Furthermore, he states, "Rather than resisting individualism, the education system has been overwhelmed by it; indeed, it could be easily argued that the school contributes to the increase of egoism and anomie among its pupils" (pp. 190-191). Since the publication of Hargreaves article in 1980, the focus placed on individualism in education has only become more intense—largely the result of neo-liberal state policies since the 80's, which contemporary "state-theories of learning" are an example.

In particular, Hargreaves suggests that there are three different major forms of individualism that permeate public education, which are developmental, meritocratic and moral forms of individualism. Developmental individualism can be traced back to the progressive educational philosophy of John Dewey and Jean-Jacques Rousseau, which placed much emphasis on personal development and growth. This more progressive, developmental approach to education is consistent with child-centered instruction—a popular model of classroom instruction in undergraduate education programs today. Child-centred orientations to education are typically valued because they are said to be more consistent with constructivist learning theories (which take on great popularity in education circles; Phillips, 2007 [1995]) and democracy, which encourages individuals to take on a more participatory role in society (Dewey, 2007 [1916]). Tailoring instruction to individual learners can also help to enhance equal educational opportunity.

Developmental forms of individualism are instrumental to enhancing and protecting equal educational opportunity. According to Noddings (2005 [1993]), it is often harmful to assume that all students can or should learn the same core curricular content (i.e., traditional, "liberal arts" content), as students themselves differ greatly in their strengths, abilities and interests. Moreover, traditional methods of instruction are typically considered narrow and, as a result, have the effect of giving students who naturally possess learning styles conducive to these traditional methods an advantage over others. For example, traditional methods have tended to use direct instruction where teachers are thought to transmit knowledge to passive learners. Moreover, traditional "paper-pencil" methods of instruction have mostly required students to sit quietly in their desks for long periods of time. This undoubtedly puts students who have strengths not commonly recognized in the liberal arts curriculum at a disadvantage (e.g., students who are more kinesthetically and socially oriented). Without tailoring instruction to suit individual learning styles, some individuals are likely to gain greater educational opportunities than others. And, while individualized instruction should not be looked at as *the* solution for educational inequities, it can

help to ensure individuals with different learning styles are rewarded more equally.

Systemic disadvantages, such as those that result from a narrow instruction methodology, are likely to contribute to the formation of negative learner identities. “Educational research, like behavioral science in general, has made the error of supposing that method can be substituted for individuals, and this attempt may well have increased the alienation of students” (Noddings, 2005, [1993], p. 8). Furthermore, it has been shown that those who form negative learner identities become much less ready to engage with learning opportunities later on (Rees, Fevre, Furlong & Gorard, 2006, p. 933). The progressive, child-centred movement places much focus on individuals, but it also represents one of education’s best opportunities for alleviating the negative effects narrow educational methods can have on the learning experiences of students who are more unique in their strengths and talents. Consequently, not all forms of individualism in education should be seen as problematic.

The value of meritocratic individualism, unlike developmental individualism, is more directly connected to the project of equal educational opportunity. Hargreaves states that meritocratic individualism has its roots in the “Protestant ethic and our conceptions of a democratic society: talent and effort must be given their due rewards” (p. 187). As mentioned above, equal educational opportunity is something that most (if not all) stakeholders in education value. It is hard to believe that anyone would openly admit to wanting the quality of one’s school experience to “depend upon the chance of their having been born here or there, of some parents rather than others.” Past experiences with models of achievement that were overwhelmingly sensitive to inherited circumstance (in feudalism, for example) have influenced current generations to view these models are inherently unfair. Thus, liberal democratic societies have come to know, *a posteriori*, the reasons for valuing equal opportunity.

It is particularly the moral form of individualism (and how it influences the other two forms of individualism in education) that should be seen as problematic. The rise of moral individualism in liberal societies was closely

documented by each of the founding sociologists, Karl Marx, Emile Durkheim and Max Weber. Each theorist had their own concept for describing the process whereby "private interests and greeds burst forth beyond social regulation and group controls," which were estrangement/alienation, anomie, and the rationalization of society. Hargreaves mentions that "with the relative decline in religious affiliation and restrictive sexual *mores* there arose a new emphasis on the acquisition by pupils of a rational ethical stance" (p. 188). That is to say, individuals moved from being more directed by tradition and conformity, having goals that fit the needs of others, and valuing group success and achievement to being more self-directed, having goals that fit personal needs, and placing greater value on personal achievement. The moral obligation to act in one's own self-interest is implicit to moral individualism. Undoubtedly, much of the moral individualism found within education in Canada and the US is influenced by "invisible-hand" theories of capitalism that have been used to justify acting in one's self-interest. Moreover, capitalism is the most common economic system in liberal-democratic societies, so "it enjoys something close to hegemony outside of school" (Brighouse, 2007, p. 214).

Ethical vs. Political Liberalism. Studying the distinction between ethical and political liberalism can help to clarify how moral forms of individualism have come to be taken up in education. The distinction between ethical and political liberalism lies in the role individual autonomy should play in society. "It is autonomy that is central to the ideals of ethical liberalism, and it is the commitment to autonomy that brings ethical liberals into conflict with cultures that view their members as fully embedded in a tradition in such a way as to reject the view that everyone should have an unencumbered choice of his or her own good. … [I]t is this picture of autonomy that Rawls rejects in *Political Liberalism* [1993]" (Strike, 1999, p. 34). In political liberalism, it is suggested that individuals should retain the *right* to revise their conception of the good, but it is not suggested that individuals *should* revise their conception of the good. "The state also takes actions to ensure that individuals actually have the personal capacity to exercise these rights. For example, a liberal state will want children to

learn the cognitive and imaginative skills needed to evaluate different ways of life, and to survive outside their original community. This is one of the basic goals of education in a liberal society" (Kymlicka, 2002, p. 237). But, even though it could be argued that equipping individuals with the capacity to exercise such rights does not mean that individuals will be encouraged to exercise them, ethical liberalism is still encouraged (if only implicitly) by teaching students to value rationality. The general message being sent to students in liberal education is that rationality is good, and choosing one's own ends as an autonomous person is most consistent with rationality. As a result, students are likely to view communitarian societies as irrational because they organize themselves around common values,.

Moral individualism is also problematic in the way that it influences developmental and meritocratic forms of individualism in education. As mentioned above, developmental forms of individualism can help to lessen the effects narrow instructional methods have on educational opportunities. However, when influenced by moral individualism, students are encouraged to secure individual success with the benefits they receive from individualized instruction. In other words, KSAs acquired in public education are not frequently viewed by students (or teachers for that matter) as tools that can be used to improve the whole community or society. Rather, they are viewed more as tools that can help one to fulfill their personal ends. "While the meaning of 'equality of educational opportunity' can be neutral among conceptions of education … its general understanding in popular discourse, especially currently … tends to involve a consumerist, purely instrumental, and individualistic conception of education. The benefits of schooling are seen as accruing only to the individual student, rather than, for example, to the society or polity; it is individual students whose opportunities are at stake in 'equality of opportunity'" (Blum, 2007, p. 272).

Furthermore, KSAs learned in school are to be used by individuals to compete *against* others for desirable positions in society. Romantic ideas of equal opportunity often leave out competition, which itself requires both winners *and* losers. That is, when speaking about equal opportunity and meritocracy, we tend not to talk about the fact that, through competition, opportunities secured by some

individuals often in effect represent lost opportunities for others (Marginson, 2006). As Katz (1976) suggests, "The underside of the meritocracy, of course, is failure" (p. 403). Instead of focusing on working together towards common social goals, liberalism figuratively places societal rewards behind a series of walls—the walls of merit. Those who can climb the walls are said to gain legitimate access to the rewards that lay beyond them, whereas those who are unable or unwilling to make the climb are legitimately denied such rewards. Rising global inequality over the last few decades would also suggest that top earners have been able to claim the largest share of global wealth, and this undoubtedly results from things like zero-sum positional competition, where individuals are pitted against one another.

Giving moral individualism a large place in education not only trivializes the social function of education, as Hargreaves suggests, it is also problematic when considering the integration of an educational framework for sustainability into public education. Sustainability is a concept that is concerned with the well-being and success of individuals, but also that of society as a whole. It says that individuals may still pursue their subjective preferences so long as they do so sustainably. In this sense, sustainability should be viewed as a shared end or objective good. As a shared end, sustainability makes use of the idea that people are not resources for others; thus, it also acknowledges the equal moral status of individuals. Liberal theory stipulates that individuals matter equally, and that equal opportunity affirms this equal moral status, but it is often overlooked that, when based in a competitive economic system, *personal successes require personal failures*. And, though personal failure remains consistent with moral equality in some ways, it can also undermine moral equality because individuals must base their successes, vis-à-vis positional competition, on the failure of others. As a result, an economic system based on positional competition should be seen as suspect in the context of sustainability.

The concept of sustainability pays homage to both the individualistic and relational aspects of humanity. It asks, "How should individuals care for their relationships to the economy, society, and environment such that the well-being

of *all* individuals embedded in these systems (whether human or non-human) is nurtured into perpetuity?" The word care is morally active and, as such, it implies that there are definite rights and wrongs when it comes to sustainable economic, social and ecological systems. As Roberto Unger reminds us, subjective and objective values share an inverse relationship—the more subjective values are privileged, the less relevant common goods become. Consequently, if we are to think of sustainability as a common good, then education must teach individuals to balance individual freedom and social and environmental responsibilities. Otherwise, sustainability-related outcomes are likely to have little meaning to learners. Teaching students to balance personal preferences and responsibilities is something the overly individualistic and neutral theory of liberalism cannot accomplish alone. If we are serious about adopting communal values, we must find a way to move beyond the "distinction of fact and value" in order to use principles of the common good (i.e., principles of sustainability) as "standards of evaluation."

Even though the overemphasis of individualism and the neutral character of liberal ethics make it harder to implement sustainability-related goals in education, that is not to say that liberalism should be thrown out all together. To dispose of liberalism completely would be to assume that liberalism has nothing of value to offer. Realistically, equal opportunity (i.e., fairness) is an important and necessary precursor for sustainability, and fairness is essential to contemporary liberal philosophy. As such, this thesis largely represents a partial critique of liberal theory and practice. A full critique of liberalism, while potentially more effective at bringing about sustainable circumstances *quickly* (say, by *directly* encouraging activism), is not reasonable when considering the framework's practicability. That is, implementing a framework for sustainability that seeks to completely undercut other important institutions (through activism) would be to be to render the education system "detached," and politicians and parents would likely not support a detached institution. As a result, the proposed framework for sustainability must retain some liberal structures if it is to be seen

as an idea actually worth pursuing (even if such structures require improvement themselves).

No longer enslaved or made dependent by force of law, the great majority are so by force of poverty; they are chained to a place, to an occupation, and to conformity with the will of the employer, and debarred by the accident of birth both from the enjoyments, and from the mental and moral advantages, which others inherit without exertion and independently of desert. That this is an evil equal to almost any of those against which mankind have hitherto struggled, the poor are not wrong in believing.

- John Stewart Mill (1963 [1879], "Introductory" Section)

[E]conomics, the most mathematically advanced social science is the most socially, humanly backward science because it has abstracted itself from the social, historical, political, psychological and ecological conditions inseparable from economic activity.

- Edgar Morin (1999, p. 17)

Chapter Three: Economic Sustainability and Public Education

Capitalism is unsustainable in an economic sense and, thus, if sustainability is an objective good, then capitalism ought to be considered bad, and outcome objectives that problematize capitalism should be incorporated into school curriculums. Moreover, considering that liberal and capitalist theories are almost always conflated, it is necessary to show how they are different from each other. If this could not be shown, teaching anti-capitalist values would in effect mean teaching illiberal values, and this would be undesirable if we want promote and protect particular liberal values. In Chapter Two, for example, it was argued that equal opportunity and self-determination should be considered valuable because they respect freedom, moral equality and fairness. As a result, teaching anti-capitalist values in schools would be possible only if it did not diminish equal opportunity or self-determination. Furthermore, by showing that capitalist rights and values undermine equal opportunity and self-determination, it is argued that teaching anti-capitalist values in schools in Canada and the US would actually be desirable, as doing so would *enhance* equal opportunity and self-determination.

Before talking about their differences, it is useful to note how liberalism and capitalism are similar. For instance, both liberalism and capitalism tend to value equal opportunity, self-determination, and share an individualist orientation. Furthermore, both developed in response to the rigid social hierarchies of

feudalism that were justified on religious grounds. Non-nobles were largely subject to the will of the nobility, which limited their freedom in general. Moreover, the nobility imposed social and economic barriers in a coercive fashion and expropriated much of the wealth generated by non-nobles in order to support a relatively luxurious lifestyle. Hence, the nobility exploited non-nobles in feudalism, using them as resources to further their ends. In order to render this expropriation legitimate, the nobility convinced non-nobles of their superior moral status. Consequently, when scientific knowledge began to undermine the religious foundations upon which this difference in moral status rested, it became harder for the nobility to justify their moral superiority, and this eventually led to the development of a judicial system based on individual rights. Hence, the emphasis liberalism and capitalism place on equal opportunity, self-determination, and individualism can be understood *historically*.

Without good reasons for maintaining a moral hierarchy, the idea that individuals are morally equal became increasingly important. Furthermore, if we are to accept this fundamental liberal-egalitarian principle, we should be inclined to accept other important sub-principles. For example, if individuals are really equal, then they must have equal opportunities to secure social rewards (which often come in the form of economic benefits). And, if individuals are to have equal opportunities, then ideally we can say that no individual should start their life with an advantage over others. Another way of saying this is that an individual's unearned circumstances should not contribute to their success or failure.

Individuals should start their lives with approximately the same amount of resources, and social benefits from that point should be *earned* on the basis of merit. Here, resources are intended to mean "capital," and capital is defined as assets that will generate income in the future (Woodhall, 1987, p. 219). Based on this definition, equal opportunity requires that individuals start their lives with more or less an equal share of capital (e.g., everyone could be entitled to respectable living quarters and a certain portion of arable land). Otherwise, opportunities are likely to be unevenly distributed amongst citizens. Nevertheless,

even if capital *did* become more equally distributed, outcomes for individuals would likely become unequal again over time. This potential drift back towards inequality should not be considered overly problematic so long as the resulting inequalities are indeed earned on the basis of merit. Moreover, given that individuals would always possess some basic form of property, those who become relatively worse-off would retain significant opportunities for social mobility (vis-à-vis their capital).

Part One: Key Differences Between Liberalism and Capitalism

In this chapter, the key differences between liberalism and capitalism are organized into two major categories: property rights and competition. In particular, property rights and competition represent constitutional elements of capitalism. For example, if capitalism were a built structure, property rights and competition would represent its pillars. When either property rights or competition is removed, the idea of capitalism falls apart. On the other hand, contemporary (Rawlsian) liberal theory, which has fairness as its main goal, does not require traditional property rights, nor does it stipulate the need to value competition. So, if one were to hypothetically remove both property rights and competition from actual political structures in Canada and the US, the most important liberal principles and institutions would be left uncompromised.

During the development of the liberal-democratic state, it must have only made sense for early state officials to incorporate capitalist values (like property rights) into political structures. To these individuals, property rights only ever increased freedoms. The further one goes back in time, the more the difference between liberal and capitalist ideas begins to blur. Indeed, classical "liberal" theorists were also the theorists responsible for championing capitalist ideas, such as John Locke who famously defended property rights. Instead of being labeled "capitalist theorist" or "liberal theorist," most of these thinkers are lumped under the single heading of "Enlightenment philosopher." It is important to remember then that "the enlightenment philosophers were thinking on behalf of early capitalist white men—*their* rights and liberties—not the rights of the workers, nor the peasants, and definitely not women, nor black or brown people (Locke was a

shareholder in the Royal African Company, whose most profitable 'commodity' was slaves)" (Peet & Hartwick, 2009, p. 29). As a result, the potential negative effect of property rights on traditionally marginalized populations is often conspicuously absent in the writings of the Enlightenment philosophers. What is needed, then, is to bring these potential negative effects forward in order to show how they undermine important liberal goals—particularly equal opportunity and self-determination. As Marginson (2006 [2004]) suggests, "Fully capitalist production is fundamentally subversive of the equality of opportunity project and other common goods" (p. 894).

Due to the fact that both liberal and capitalist ideas developed in response to feudalism, there is a tendency to see capitalist economic theory as a natural extension of liberal theory. The idea is that if we ought to live by liberal-egalitarian principles, then when it comes to choosing a mode of production that respects these principles, people should be compelled to choose capitalism. For example, the "American Dream" is a capitalist narrative centred on equal opportunity and self-determination. It is a narrative that says, "you may have been born into rags (i.e., unfortunate material circumstances), but with hard work and determination you can earn riches." Liberal and capitalist theories also suggest that instances of coercion should be minimized, which can be accomplished through the use of a legal system based on equal individual rights. However, "[b]y definition, capitalism requires differential representation in power and politics, fostering inequity formation through hierarchies and competing interests and inequality through the workings of a profit-seeking system" (Torres, 2006 [1998], p. 538). This aspect of capitalism makes capitalist theory hard to reconcile with the liberal theory of Rawls that focused on equal opportunity and fairness. To Rawls, fairness was the most important goal in moral matters, and equal opportunity represented the ideal conditions for ensuring fairness was achieved.

Similar to liberalism, capitalism favours individual rights for reasons related to the coercive social environments of feudalism. In this regard, Max Weber's interpretive-historical account of the "spirit of capitalism" can help to refine the explanation for why private property rights are so valuable to

capitalists. For example, the religious doctrine of Calvinism championed the idea of double-predestination. Unlike Catholicism, Calvinist theology asserted that one's soul was predestined to either heaven or hell upon birth, and individuals would only discover their destiny at death. Moreover, regardless of what individuals did during their lives, they could not alter their path. "But, rather than passively resigning themselves to fate or indulging in hedonism, … argued Weber, Calvinists were disciplined in their conduct by a terrible, pressing anxiety to assure themselves that they were 'among the elect,' among the saints destined for heaven—that is, Calvinists worried all the time about their eventual destination. Weber called this disciplining mental terror, 'inner-worldly asceticism'" (Peet & Hartwick, 2009, p. 109). As such, Calvinists chose various ways to affirm their membership among the elect, if only to alleviate this self-induced terror. For instance, "such a conclusion [on predestination] prompted Calvinists to interpret worldly prosperity as a sign of God's grace" (Macionis & Gerber, 2002, p. 100). According to Weber, this constant pressing anxiety over one's own fate had the effect of reinforcing individualist attitudes in Calvinists and eventually Puritans who came to populate many areas on the eastern coast of the United States.

The Catholic Church typically views labour as punishment and denounces the possession of worldly riches. Calvinists, however, sought to actively glorify God by instilling in themselves a rigorous work ethic, and Puritans took this idea even further by condemning idleness. "Waste of time is thus the first and in principle the deadliest of sins. The span of human life is infinitely short and precious to make sure of one's own election. Loss of time through sociability, idle talk, luxury, even more sleep than is necessary for health, six to at most eight hours, is worthy of absolute moral condemnation (Weber, 2003, pp. 157–158). Excess profits produced through continuous hard work were typically reinvested into other sources of wealth (rather than being spent on bodily pleasures). However, Weber argued that such contradictory values led Puritans to eventually focus less on self-denial and more on accumulating profits for personal use. The concept of "disenchantment," which was described by Weber in the last chapter

of his book *The Protestant Ethic and the Spirit of Capitalism,* attempts to explain the emergence of an individualist, profit-maximizing mindset in American culture (Weber, 2003 [1905], p. 174).

According to Weber, the motivation of Calvinists and Puritans to take on productive careers had much to do with deep concerns over the trajectory of their souls. Moreover, such extreme personal concerns related to predestination led individuals to focus on personal successes and failures (as a function of personal profit) instead of on the successes and failures of the community (Weber, 2003 [1905]). As individualist attitudes strengthened from concerns over one's own fate, it is likely that competitive attitudes were also indirectly strengthened. For instance, it was not enough to just be successful. For if everyone were equally successful, there would be no relative difference in social status and, thus, no way to tell if one's soul was among the elect. Consequently, competition served an important function. It ensured the creation of a population of unsuccessful people who, by virtue of their failures, could reinforce the relative success of hardworking puritans. Moreover competition generally requires that winners be *entitled* to that which they win, even when it is at the expense of the losers.

The Right to Private Productive Property. The right to private property is an individual right common in Canada and the US, and while there are different kinds of private property, here "private property" is intended to mean "private *productive* property." Moreover, "capital" will be used interchangeably with "productive property," and "capitalists" will be used interchangeably with "owners of capital." Thus, when referring to private property rights, in essence what is being referring to is one's right to privately own capital. Drawing a distinction between the productive and non-productive forms of property is important, as it is specifically private ownership of *productive* property that is argued to undermine equal opportunity and self-determination. Furthermore, considering that equal opportunity and self-determination are important liberal goals, private property rights can be considered illiberal to some extent because they undermine these goals.

Given the potential for property rights to undermine equal opportunity and self-determination, it is worth noting the appeal of property rights to both liberals and capitalists. First, owners of capital generally associate property rights with freedom—something both liberals and capitalists value. For example, capital refers to assets that will generate income in the future, and as the UNDP suggests, income plays an important role in "expanding people's freedoms." Consequently, property rights share a relationship with self-determination because income generated from property can be used to help pursue life goals. But, given the inevitability of positional competition in Canada and the US, we must not only consider the role capital plays in facilitating self-determination; the potential role capital plays in undermining self-determination must also be considered. "Positional competition… is a zero-sum game. What winners win, losers lose" (Hirsch, 1976, p. 52). Hence, if productive property is a mechanism that can be used by individuals to help meet personal goals, then those who lack capital will most likely experience a more difficult time meeting personal goals. What is more, owners of capital might argue they earned their income-generating assets "fair and square" (say, through merit alone), but this avoids the question of whether inheriting capital assets is fair, and it also avoids the question of whether achievement should depend on natural endowments. "Liberals say that because it is a matter of brute luck that people have the talents they do, their rights over their talents do not include the right to accrue unequal rewards from the exercise of those talents" (Kymlicka, 2002, p. 109).

Property rights cannot be reasonably justified. One of the most influential defenses of property rights can be found in John Locke's *Second Treatise on Civil Government* (1978 [1689], Ch. 5). At the time it was written, the religious belief that God gave earth to humans in common was still popular. Locke mentions, it seemed "to some a very great difficulty, how any one should ever come to have a property in anything" (p. 26). This is evident when he contemplates how individual ownership may be justified. For example, he goes on to say, "I shall … endeavour to show, how men might come to have a property in several parts of that which God gave to mankind in common" (p. 26). However,

Locke's argument relies heavily on the validity of the concept of "homesteading," which stipulates individuals can own things they mix their labour with. "The labour of his body, and the work of his hands, we may say, are properly his. Whatsoever then he removes out of the state that nature hath provided, and left it in, he hath mixed his labour with, and joined to it something that is his own, and thereby makes it his property" (p. 26). Locke's argument was, and continues to be, very influential to many social/economic theorists. For example, his argument on property continues to serve as the justification for property rights in contemporary libertarian theory—much of which can be attributed to Robert Nozick. The contemporary version of Locke's argument made by Nozick in *Anarchy, State, and Utopia* (1974) is described by Will Kymlicka (2002), and is quoted at length in order to bring attention to its major flaws.

> In [Nozick's] theory, my title to external goods like land comes from the fact that others have transferred the title to me, in accordance with the principle of transfer. This assumes, of course, that the earlier owner had legitimate title. If someone sells me some land, my title to the land is only as good as her title, and her title was only as good as the one before her, and so on. But if the validity of my property rights depends on the validity of previous property rights, then determining the validity of my title over external goods requires going back down the chain of transfers to the beginning. But what is the beginning? Is it the point where someone created the land with their self-owned powers? No, for no one created the land. It existed before human beings existed. The beginning of the series of transfers is not when the land was created, but rather when it was first appropriated by an individual as her private property. On Nozick's theory, we must go down the chain of transfers to see if the initial acquisition was legitimate. And nothing in the fact, if it is a fact, that we own our talents ensures that anyone can legitimately appropriate for themselves something they did not create with their talents. … How then did these natural resources, which were not initially owned by anyone, come to be part of someone's private property? … The historical answer is often that natural resources came to be someone's property by force. This is a rather embarrassing fact for those who hope Nozick's theory will defend existing inequalities. Either the use of force made the initial acquisition illegitimate, in which case current title is illegitimate and there is no moral reason why government should not confiscate

> the wealth and redistribute it. Or the initial use of force did not necessarily render the acquisition illegitimate, in which case using force to take property away from its current owners and redistribute is also not necessarily illegitimate. Either way, the fact that initial acquisition often involved force means that there is no moral objection within Nozick's framework to redistributing existing wealth (Cohen 1988, pp. 253-254)" (In Kymlicka, 2002, pp. 110-111).

Being somewhat aware of the weakness of this argument, Nozick supplements the homesteading argument with what he refers to as the "Lockean proviso."

The Lockean proviso suggests that privatization of the commons could be justified if "there was still enough, and as good left" for others (Locke, 1978 [1689], p. 29). In particular, Nozick interprets this to mean private appropriation should be permitted so long as the condition of others is not worsened. However, "condition" is largely implied by Nozick to mean "material conditions" (Kymlicka, 2002, p. 115), and this brings up important questions. For example, can it be assumed that one's quality of life will always rise with material conditions? The "Sarvodaya" teachings of Gandhi suggest that the "[s]tandard of life should be distinguished from standard of living, it is the former that is fundamental and not the latter. A rise in the standard of living might even lower the standard of life, by reducing man's physical, moral, intellectual and spiritual standards, power and potentialities" (Singh, 2006, p. 165). Moreover, the proviso argument does not seem to hold up well in present contexts where significant barriers exist to accessing even the most basic forms of capital (e.g., a house and land). For example, those who enter the market *after* full enclosure of the commons are "limited to gifts and jobs others are willing to bestow on them," and "if they are compelled to cooperate in the scheme of holdings, they are forced to benefit others. This forced compliance with the property system constitutes a form of exploitation and is inconsistent with the most basic of [Nozick's] root ideas, rendering as it does the latecomers mere resources for others" (Bogart, 1985, p. 833-834).

As many individuals are, "by force of poverty," compelled to sell their labour to capitalist owners, we can note they are simultaneously compelled to

relinquish their autonomy for large portions of time during workdays (i.e., the majority of days of the year for many). This loss of autonomy is not factored into Nozick's assessment of whether or not one's conditions have been worsened. Moreover, considering the importance autonomy plays in liberal theory, we ought to acknowledge how property rights allow for coercion in the workplace and in the economic system more generally. Furthermore, once coercion is legitimized within the workplace, capitalists can use this power imbalance to their advantage (e.g., profit-making). In such a system, employees may feel the need to compromise their integrity in order to maintain their workplace reputation (or to keep their jobs altogether). For example, the head of a mining company could send out directives to burry/dump toxic waste in order to decrease large disposal costs. Directives such as this could conflict with the values of employees, and this becomes problematic because those who resist carrying through the directives of their employers (say, on ethical grounds) may become subject to unfavourable work conditions or even, in some cases, charges of insubordination.

Arguments suggesting privatization was, and continues to be, beneficial to non-owners of capital usually come along with key assumptions. First, even though individuals sell their labour to capitalist owners, and thus become subject to the will of capitalist, they receive income in exchange for doing this, and income plays an important role in "expanding people's freedoms," which includes one's ability to meet needs and wants. Hence, one key assumption attached to property rights is that the income workers receive from selling their labour to capitalists will promote greater (or as much) individual freedom than is taken away in the workplace vis-à-vis property rights. But, how is it possible to determine the amount of freedom gained through income earned in the workplace versus the loss of freedom experienced from selling one's labour? Due to a complex set of variables and different interpretations of freedom, it is likely impossible to determine whether property rights produce a net loss or gain of freedom. Similarly, such rights might produce a net gain of freedom for some and a net loss for others. Until we have empirical evidence that can show property rights have historically enhanced (or maintained) the condition of *all* individuals,

it cannot be assumed that property rights actually keep those without capital from being worse-off.

Secondly, standard economic theory suggests that because individuals are rational agents who act in their own self-interest, maintaining a commons would be to run the inevitable risk of degrading the environment. That is, "tragedy of the commons" is inevitable in economic theory. However, this argument is flawed on two major accounts. It is flawed because the assumption that individuals simply act in accordance with what maximizes their personal utility is dubious as a universal claim. It oversimplifies the reasons for what motivates people to act the way they do. Individuals who subscribe to rational choice theory, such as most economists, tend to forget that humans are often motivated by things other than reason (e.g. emotions and fantasies). "We are infantile, neurotic, frenzied beings and yet we are rational. That is truly the stuff that human beings are made of" (Morin, 1999, p. 48). The other account on which this argument can be challenged relies on historical evidence that societies of the past (including ones that persist into the future; for example, the aboriginal peoples of Canada and the US) have lived on common lands without significantly degrading the environment. Indeed, it can be argued that traditional aboriginal ways of life have kept human impacts on the environment to a minimum. "Virtually every human society that has gone beyond the hunter-gatherer stage has developed some form of property-system that avoids the tragedy of the commons—humans would not have survived otherwise—but few of them (if any) have been purely capitalist. So the mere fact that capitalism does better than the commons is not saying much, and is not a reason to prefer it over any other system for establishing property rights" (Kymlicka, 2002, p. 119).

Property rights, economic stratification and vast inequality. In capitalism, "production becomes socialised while appropriation remains individualised," which "generates a contradictory relationship. Socialised production means that humans depend for their very existence upon a massive web of connections through each other, whereas individual appropriation implies that these individuals confront each other merely as competitors" (Blackledge, 2008,

"Ethics before Marx" section). Yet, because labour itself is a commodity in capitalism, capitalist owners have the right to appropriate surplus value and control it's distribution. Consequently, capitalists have been able to use property rights to accumulate vastly disproportionate shares of national income. "According to *Fortune* magazine, in 1970 real annual compensation averaged $1.3m (in today's money) for the top 100 chief executives, which was about 39 times the pay of an average worker. By the end of the 1990s, however, the average for *Fortune*'s top 100 was $37.5m, or 1,000 times the level for ordinary workers" (*Economist*, 2003). Moreover, "[i]n the late 1970s, about 8 percent of total income in Canada was concentrated in the hands of only 1 percent of the population. …The top income share almost doubled to reach 14 percent in recent years. Such an uneven distribution of income has not been seen since the dark days of the Great Depression when it reached an all time high of 18 percent" (Fortin, Green, Lemieux, Milligan, & Riddell, 2012, pp. 7-8).

The control over profits afforded to capitalists by way of property rights often makes it difficult for wage employees to earn enough to purchase income-generating assets of their own (e.g., their capital assets rarely go beyond home ownership). As Joseph Stiglitz (2012) mentions, "globalization—especially our *asymmetric globalization*—is tilted toward putting labor in a disadvantageous bargaining position vis-à-vis capital" (p. 277). For instance, seeing the profit motive as inherently good, many capitalists seek-out ways to keep their employees' wages as low as possible, and this is only made worse for workers during times of high unemployment when they fear being laid off and are willing to work for less. In this way, capitalists use the restrictive power of ownership to maintain widespread economic disparities between themselves and their workers. Peter McLaren (2008) states, "If we acknowledge the fact that 20 percent of the world population controls 80 percent of the world's production and 80 percent of the people have access to only 20 percent of world production, we are compelled to acknowledge this reality as catastrophic" (p. 51). "[D]espite their formal freedoms workers have no control over the means of production. They feel a

'silent compulsion' to work for capitalists" (Blackledge, 2008, "Marxism and the Moral Standpoint" section).

"Not everyone feels that rigid stratification and the resulting inequalities are necessarily bad for either individuals or the country. Indeed, some feel that inequalities are inevitable and even necessary to maintain a high level of motivation. As their argument goes, people will not make the necessary sacrifices to gain a good education unless they are going to be rewarded for their effort" (Young, 1990, pp. 161-162). Moreover, considering that Canada and the US are democracies in which citizens vote for leaders, capitalists must convince those without productive assets that it is in their best interest to support an uneven distribution of capital, as allegedly "material benefits trickle down from the rich to everyone, though it may take a while. In this dominant argument, increasing inequality (the rich getting richer and investing more) 'alleviates' poverty through growth" (Peet & Hartwick, 2009, p. 277). Nobel prize winning economist, Joseph Stiglitz (2012), mentions, "The [top] 1 percent has worked hard to convince the rest that an alternative world is not possible; that doing anything that the 1 percent doesn't want will inevitably harm the [bottom] 99%" (p. 287).

Stiglitz also speaks of the importance of "framing" in political matters, which refers to the careful selection of words in order to evoke and convey "notions of fairness [and] legitimacy, *positive* feelings," as well as notions of "*selfishness* and *illegitimacy*." In other words, framing is a technique in persuasion, and it tends to occur regardless of whether or not it accurately represents reality (2012, p. 163). More specifically, it is the strategic use of framing techniques by corporate and government officials that is said to trigger support (or lack of support) for ideas among the general population, including arguments that support trickle-down economic theories. This has allowed moneyed interests to use their power and resources to "ensure that the system continues to serve those interests" (p. 136). One way that Stiglitz believes this heavily biased system can be reformed is if the bottom 99% of income earners "come to realize that they have been duped by the 1 percent: that what is in the interests of the 1 percent is *not* in their interests" (p. 287).

Neo-liberal governments in Canada and the US have become effectively sympathetic to the arguments of economic growth theory and, as a result, they have become increasingly aligned with the interests of corporations. They tend to believe that corporations produce jobs as well as important technological innovations that help to spur investments and, as a result, governments keep corporate tax-rates low. Going from classical to neo-liberalism we can note a shift in attitude towards the role of the state. In classical liberalism, it was ideal to minimize state intervention. Neo-liberalism, however, creates a role for the state. For instance, being lobbied by large corporations on a regular basis, the neo-liberal state has narrowed the role of education to one that is chiefly concerned with turning out individuals who are employable. Thus, education curriculums have also become narrowed as learning objectives become increasingly aligned with goals for employability.

In neo-liberalism, the state plays a very significant and specific role with respect to devolving state responsibilities and facilitating market growth, which is accomplished mainly through privatization and deregulation as well as trade deals like NAFTA. Trade liberalization, for example, is needed by corporations in order to access markets beyond national borders, and it helps to remove market distortions that disrupt supply and demand equilibriums. Though efforts to increase trade between nations can be considered cooperative in some ways, such efforts encourage a more globalized, capitalistic world economy and are likely to encourage more competition and competitive attitudes as well.

The Valuation of Competition in Capitalism. Competition is valued in capitalist societies for a number of different reasons. For instance, competition is valued because it is seen as an effective source of motivation. Particularly, competition acts like an *extrinsic* motivator. It propels people to produce the best products and services at the lowest prices. But, this does not mean that innovation and a rising standard of living would cease without competition. Perhaps, such innovative technologies would be developed less efficiently than they would be in a competitive system, but when considering the negative consequences of blindly promoting competition, efficiency cannot be enough to persuade individuals to

value competition outright. Moreover, efficiency need not always be sacrificed when striving to make social processes less competitive. If efficiency proved to be valuable enough, efficiency could be ensured with other strategies that do not rely on competition.

The hegemony of competition in Canada and the US undermines freedom and self-determination. More specifically, it compels individuals who are not competitive (and who do not value competition) to join in the competitive "game," if only to protect themselves from falling behind in competitive environments where social benefits are at stake. These individuals often do not have a choice whether or not to participate in competitive social processes, as positional competition in the labour market is completely legitimized by the state. Mass education also perpetuates this legitimization by preparing children for positional competition in the labour market, which in turn sends a message that there is always something to be won or lost, and that this is just the way it is (Perrucci & Wysong, 2006). As Guile (2006) suggests, "Education policy has been increasingly premised on the basis of the link between education and national competitiveness since the early 1990s" (p. 365). In this context, individuals and schools who resist competition will likely face major disadvantages. Moreover, without critical reflection, personal values can easily become warped to include competition *regardless of whether or not it was originally valued*. This is a common feature of hegemony and a potential reason for why competition continues to be valued in both Canada and the US despite the fact that a significant portion of the population does not stand to benefit from competitive social processes.

We can observe a similar phenomenon on a national level, as international trade is fuelled by the need to keep national economies healthy. According to Marx and Engels (2006 [1848]), nations that choose to remain consistent with "national seclusion and self sufficiency" will face the "pain of extinction." Thus, "[competition] compels them to introduce what [the bourgeoisie] calls civilization into their midst, i.e., to become bourgeois themselves" (p. 75). Furthermore, once nation-states, such as Canada and the US, encourage participation in the global

market, they further legitimize capitalistic modes of production (many of which are morally questionable; e.g., use of child labour to decrease production costs). When considering the extrinsic motivators of competition and how they play-out in productive, technologically oriented societies, like Canada and the US, it can be noticed how competition often spurs excessive production/consumption of consumer goods, especially non-essential goods, which put greater and greater stress on both ecological and social systems. "Since we can all do more, we feel we *must* do more, because if we don't we will be left behind by our colleagues, neighbors and competitors" (Homer-Dixon, 2000, p. 102). Furthermore, over-consumption is an evil in the context of environmental sustainability, which stipulates that humans should not consume at rates that go beyond planetary means if they want to avoid large-scale social turmoil.

The hegemony of competition also poses a threat to equal opportunity; hence, it would be in the best interest of liberals to keep competitive situations to a minimum. For example, a system that typically rewards those who are more competitive is *unfairly* biased against those in society who are naturally or otherwise less competitive. Consequently, if an individual is born with qualities or traits that render them less competitive, then they are likely to face fewer opportunities to secure social merits and benefits. "[O]ne might also see that at least philosophically, globalization is advancing a thematically significant but politically suppressed notion of the survival of the fittest, which is already marginalizing those who may be less competitive in the globalization's theatre of operations" (Abdi & Naseem, 2008, p. 98). This is likely to have negative impacts on the success of women relative to men assuming that, in general, women are less competitive than men. As suggested above, cross-cultural studies regard men as the more competitive sex. Moreover, considering that women make up approximately 50% of the human population, the consequences of making social processes and institutions competitive are likely severe with respect to the continued oppression/marginalization of women.

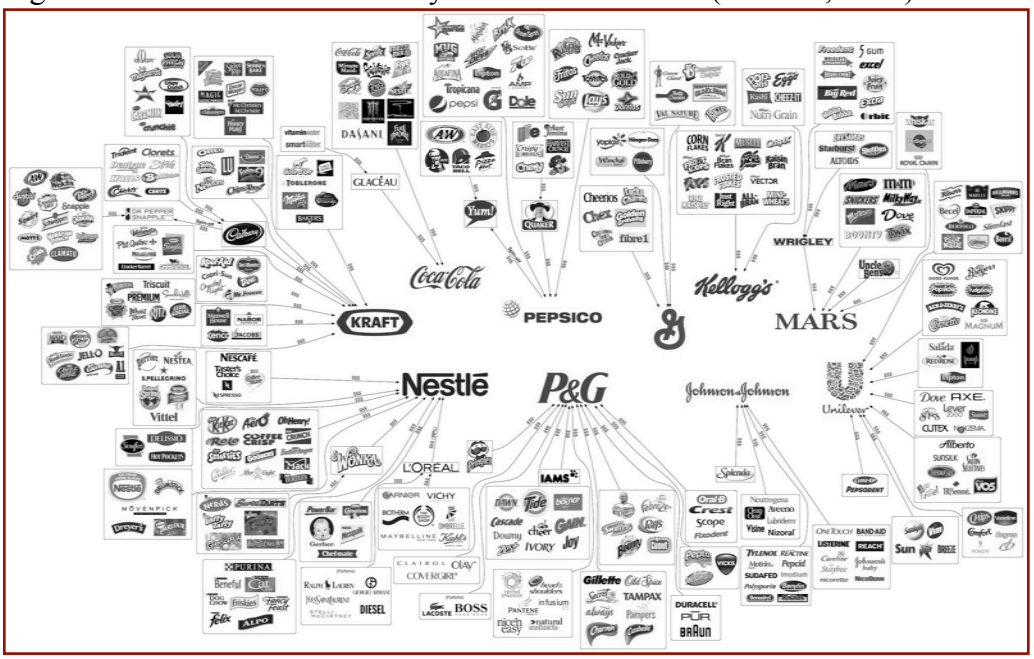
Anti-competitive behavior in the marketplace. As we observe competition in practice and over time, what can be noticed is a trend towards strategic use of

both competitive and anti-competitive behaviour by large firms. Capitalists are supposed to believe that competition is always good for society and, publically, they tend to support the traditional capitalist rhetoric surrounding competition. Capitalists likely do support competition to some extent, but they are also likely to see competition as an enemy of profit making. "When markets are competitive, profits above the normal return to capital cannot be sustained. That is so because if a firm makes greater profits than that on a sale, rivals will attempt to steal the customer by lowering prices. As firms compete vigorously, prices fall to the point that profits (above the normal return to capital) are driven down to zero, a disaster for those seeking big profits" (Stiglitz, 2012, p. 35). As a result, large incentives exist to quell excessive market competition and to limit strong laws that impede anti-competitive tactics. Moreover, large firms have the political power needed to persuade governments to stay away from enacting stronger laws that prohibit anti-competitive behaviour. Since widespread privatization and deregulation in the 80's in Canada and the US, the business world has focused not on how to make markets more efficient, but rather on "how better to ensure monopoly power or how better to circumvent government regulations intended to align social returns and private rewards" (Stiglitz, 2012, p. 35). In some cases, such as in the banking sector in the US, there exists evidence of outright collusion between firms to ensure worthwhile profits (e.g., the London Interbank Offered Rate, which is an inter-bank agreement on lending rates linked to mortgages and other financial products).

Lastly, we have entered a time where it is common for the wealthiest firms to purchase up smaller, up-and-coming businesses that pose a threat to their market share, allowing them to maintain monopolistic power. Or, if competing businesses are not willing to be purchased up by larger firms, then these firms can use their power to make life difficult for competitors. Wal-Mart, for example, is a company feared by smaller businesses due to their ability to sell products at or below cost. Such unfair competition has resulted in numerous complaints from small businesses, including charges of predatory pricing being brought against the corporation in 2000 by the Wisconsin Department of Agriculture (Mitchell,

2001). The trend towards mass conglomeration has become especially apparent in the food and beverage industry in Canada and the US, which is exemplified by the following info-graphic:

Figure 1: The Illusion of Diversity in the Market Place (Brander, 2012)



What appears to be hundreds of companies competing against one another in the marketplace turns out to be more of an illusion of diversity. In reality, ten firms (as seen above) control the majority of widely recognizable consumer goods in Canada and the US. Moreover, in 2008 market shares in the soft drink industry in the US were computed, giving insight into the domination of three corporations: Coca-Cola, Pepsi and Dr. Pepper Snapple (Howard, Duvall, & Goldsberry, 2010). Their market shares were 42.8%, 31.1% and 15.0% respectively, leaving at least 97 other companies with a market share of just 11.1%.

Competition is good when it helps to make products more affordable for consumers, but the positive effect of competition has been over-generalized. Although it is possible for competition to benefit all stakeholders, this is more an exception. The capitalist rhetoric surrounding competition nonetheless tends to suggest the opposite, which is that *everyone* stands to benefit from competition. It is in the private interests of capitalists to have consumers believe they are competing with others to keep prices low. But, in actuality, the rhetoric allows

capitalists to cover up the fact that strategic use of both competitive and anti-competitive behaviour is being employed. In this way, the rhetoric serves the purpose of redirecting attention (and thus also criticism) away from what is really happening with respect to inter-firm competition. This is another example of "framing" and how it is used to maintain advantages.

Lastly, capitalists are likely to promote competitive attitudes and social processes as a result of *their* experiences with competition. In many cases (especially those that involve positional competition), capitalists have been the ones who have historically benefitted from competition. Moreover, given their relative power and influence (e.g., access to media and advertising space), capitalists have been able to keep anti-competitive messages in the mainstream culture to a minimum, while increasing people's exposure to the capitalist rhetoric that consecrates competition. Capitalists convince people that competition is working to the advantage of most individuals in order to deflect attention away from the fact that they are strategically using anti-competitive behaviour to maximize personal gains.

Curricular Reform for Greater Economic Fairness. The blind promotion of competition in Canada and the US should be raised in school settings as a barrier to equal opportunity, self-determination and fairness more generally. Considering that competition can be beneficial to some individuals (and in some cases) while harmful to others (and in other cases), individuals must be taught (a) that this is indeed the case and (b) how to discern between healthy and unhealthy forms of competition. Nel Noddings (2005 [1993]), who is careful not to write-off competition, suggests three tests for healthy competition: "Is the enterprise still fun? Can you take some delight in the victories of your rivals? Are you turning in better performances or products as a result? If the answer to each of these questions is positive, competition may be benign and even useful" (pp. 102-103). Evaluative criteria such as this could act as the basis for teaching individuals about the benefits and harms of competition in schools. And, while Noddings' three tests are a good starting point, further work will need to be done to refine moral standards of evaluation for competition as well as to determine how these

standards might be taught in the classroom. Given the importance of such instruction to the protection of equal opportunity and self-determination, the state should ensure that content related to competition is *well understood* by students upon graduation from high school, which could be accomplished by exposing individuals to such instruction consistently throughout their education. "Ultimately, a change in people's and society's priorities—away from cherishing competitiveness and individualism, to valuing community and diversity—is needed" (Wolbring, 2009, p. 152).

Public education must also help individuals understand property rights and how they negatively affect equal opportunity and self-determination. This would include teaching individuals the difference between productive and non-productive forms of property and ultimately whether or not private ownership of productive property can be considered fair. Furthermore, considering that fairness is the most crucial factor in considering what it means to be economically sustainable, learning outcomes related to fairness in economic matters must be incorporated into school curriculums. Moreover, they should be incorporated in such a way that property and property rights are *well understood* by individuals upon graduation from high school. Some might suggest the concept of property is too abstract to teach younger children, however, Jean-Jacques Rousseau reminds us that, with a little creativity, even those who are less capable of abstract reasoning may be taught the basics of property. More concrete lessons on property, such as the gardening example that appears in Rousseau's *Emile, or On Education* (1979 [1762], Book 2, pp. 98-100), could be taught in earlier grades while more abstract lessons could be taught in later grades.

An educational framework for sustainability encourages individuals to critically engage with issues endemic to capitalism, such as private property and the blind promotion of competition. Therefore, it shares many similarities with "revolutionary critical pedagogy." The proposed framework for sustainability cannot be considered revolutionary critical pedagogy, per se, as it does not seek to directly teach activism, but it does share an important goal with my approach in that it seeks dismantle the hegemony of capitalism and ultimately dispose of

capitalism itself. It does this by drawing on concepts internal to liberalism and by avoiding the introduction of concepts from alternative moral-political frameworks (e.g., socialism, conservatism, feminism, etc.). This is not to say that my post-liberal approach does not also include many elements of these other frameworks but, rather, I provide an immanent critique under the assumption that we must change course towards greater sustainability under the dominance of liberal "common sense" in a liberal society. "Revolutionary critical pedagogy operates from an understanding that the basis of education is political and that spaces need to be created where students can imagine a different world outside of capitalism's law of value (i.e., social form of labour), where alternatives to capitalism and capitalist institutions can be discussed and debated" (McLaren, 2008, p. 50). For example, by helping students understand how current property rights and competition keep us from bringing about a fairer and more caring society, fundamental differences that exist between capitalist and contemporary liberal values should become more apparent. When taught from a moral point of view, such content will help weaken and eventually dismantle the hegemony of capitalism by encouraging individuals to discuss and debate potential alternatives to capitalism.

Part Two: The Practical Effects of Capitalism on Public Schools

On one hand, it is naïve to assume that mass education was developed wholly in response to the demands of capitalism and the industrial revolution (e.g., as means to obtain a skilled workforce). On the other hand, it is also naïve to assume that public schooling was developed wholly for humanistic purposes (i.e., where knowledge and the learning process are valued in and of themselves). Katz (1976) provides some clarification suggesting, "our understanding of the relationships between the introduction of industrial capitalism, the transformation of the technology of production, the redistribution of the population into cities, and the creation of systems of public education remains far from precise" (p. 384). Indeed, the key figures and events that lay behind the development of public schooling were numerous and complex.

Other than some initial opposition from the colonial ruling elite during the first half of the nineteenth-century, the idea of public education in Canada generally grew to be a popular one (Curtis, Livingstone & Smaller, 1992). Within this eventual consensus for pubic education in Canada, there existed a diversity of values and interests, which tended to correspond with socioeconomic and political positioning. For example, Curtis, et al. (1992) note that

> conservatives tended to argue that universal elementary education would produce both good citizens and workers: sober, reliable, religious and orderly people who would respect established authority and private property. Liberals stressed the same points, but also saw education as a means whereby individuals could better themselves. … Agrarian radicals and progressive reformers from other classes, by contrast, were much more interested in educational institutions as agencies for the protection and advancement of 'poor man's rights;' for justice, political liberty and greater economic equality in society (p. 34).

Strong links have been found to exist between public education and industry even though one cannot assume public education developed wholly in response to industrial capitalism. "Capitalism as a concept assists in the interpretation of institutional development for two reasons: first, institutions reflected the drive toward order, rationality, discipline, and specialization inherent in capitalism" (Katz, 1976, p. 392). Second, the development of public schooling was a response to the problems that faced capitalist developments in the mid nineteenth-century, such as "(1) urban crime and poverty; (2) increased cultural heterogeneity; (3) the necessity to train and discipline an urban and industrial work-force; (4) the crisis of youth in the nineteenth-century city; and (5) the anxiety among the middle classes about their adolescent children" (Katz, 1976, p. 392). In many ways, public education was seen as a potential solution for these issues.

As industrialization became more prominent in the late nineteenth-century, men began to leave their homes to work in the city.

> Men left the household to work for wages, which were then used to purchase the goods and services that they no longer were home to provide. Indeed, the men

> were the first to lose their domestic skills as their successive generations forgot how to butcher the family hog, how to sew leather, how to chop firewood. ... The more a man worked outside the home, the more the household would have to buy in order to have the needs met. Soon the factories were able to fabricate products to supplant the housewives' duties as well (Hayes, 2010, p. 14).

According to Shannon Hayes (2010), this had a negative effect on women, eventually spurring many of them to join the workforce. This was convenient for factory owners who were in constant search of new sources of cheap labour. According to Stamp (1977), the supplanting of domestic responsibilities eventually contributed to the loss of domestic knowledge and skills amongst women. This loss was acutely felt by many women in the late nineteenth and early twentieth-centuries, leading Adelaide Hoodless (who lost her child to contaminated milk) and other women, such as Jane Addams, to fight for educational programs and other support systems that would benefit women. Adelaide Hoodless was eventually successful in getting education agencies to integrate home economics courses into Canada's education system. Furthermore, upon recognizing that women would be unemployed and, thus, left to fend for themselves during the time between graduation and marriage, Hoodless also placed strong emphasis on achieving access for girls to the then burgeoning technical/vocational schools in Canada (Stamp, 1977, p. 27).

Major events in history also suggest the existence of a strong relationship between education and employment. Thus, underemployment was and continues to be a major factor in the popularity and aims of education. For example, "concerns about Canada's international economic position during the Great Depression from the 1870s to the 1890s led capitalists and politicians to agitate for the technical education of the working class through what was called 'manual training.' Organized labour, faced with the decline of many traditional crafts and with the undercutting of the apprenticeship system, was receptive to arguments about technical education as a path to economic security" (Curtis et al., 1992, pp. 38-39). The connection between employment opportunities and the popularity and aim of public schooling becomes even more apparent when considering the trends

in between and after the two World Wars. After the First World War, for instance, enrollment in vocational schools in Canada decreased and enrollment in academic programs sharply increased. “The academic course was seen to offer better opportunities for future employment than the technical courses which offered training in depressed branches of industry” (Curtis et al., 1992, p. 43). The trend toward academic programs and programs of higher education again sharply increased after the Second World War. “Secondary education became the key way of dealing with young people who would otherwise be unemployed” (Curtis et al., 1992, p. 45).

At times, industry has heavily dominated and dictated the popularity and the aims of education in Canada and the US. Consequently, humanistic, democratic and other forms of progressive education are often only valued during periods of economic depression, when the availability of future jobs is low (Curtis et al., 1992, p. 50). Hence, public education in Canada and the US has tended to fall victim to boom and bust cycles common in capitalism. In Alberta, for example, numerous opportunities to make good money in the oil and gas sector at an early age often undermine personal motivations to do well in school—a condition that largely results from the province’s undiversified economy. As the price of oil goes up, oil sands companies are increasingly successful in luring individuals away from schools by offering them lucrative work opportunities that do not rely on competitive educational credentials. The opposite is also true to some extent, as individuals often look to increase their educational credentials during times when employment opportunities are low. The close relationship public education has maintained with industry in Canada and the US over time has effectively compromised the institution’s autonomy, and this in turn undermines education’s more humanistic purpose, which is to facilitate self-determination (by equipping individuals with the capacity for autonomy). Corporate influence in education thus undermines sustainability, as the right to self-determination is key to sustainability.

The Liberal Purpose for Public Education. If we roughly divide social life into three spheres—the home, school and public spheres—we notice that

commercialization and themes of consumption are somewhat common to all of them. However, this was not always the case. Before the introduction of television, parents were largely the ones who chose what forms of commercialization their children would be exposed to in the home. But, as television rose to popularity, corporations found that they could influence children *directly* within the home vis-à-vis television commercials. One effect of this is the "nag factor," where children watching TV commercials nag their parents for products being advertised. In this way, capitalist consumer culture has successfully penetrated the home sphere.

There has also been increasing penetration of capitalist consumer culture into public schools in Canada and the US. Some of the main concerns include direct marketing as well as standardized testing. Direct marketing often comes in the form agreements made between large corporations and schools, which receive funding and resources in return. For example, beverage retailers (e.g., Coca-Cola and Pepsi) have begun to compete for exclusive rights to spread and advertise their products over different university campuses. Similarly, the sale of scholastic materials in schools in return for free books for teachers also signals an intrusion of large corporations into schools. This is the same for computer hardware/software companies that offer low prices to schools for their products knowing full well the benefits of securing brand loyalty early on in children's lives. In the US, there have even been deals made between schools and major media companies, such as Primedia, to show 12 to 13-minute videos (2 min of which are dedicated to *non-educational advertisements*) at the beginning of most school days in return for television and video equipment. Harry Brighouse (2007) goes on to describe other corporate schemes that seek to further expose children to mainstream consumer culture in schools, leading him to suggest that schools ought to take an active stance against such intrusions. He defends this position, stating that

> the school has the difficult task of facilitating autonomy of children whose home values are at odds with those of the mainstream [public] culture. … But equally important, the task requires that the school have the ethos that is noticeably

> discontinuous with that of both the home and the mainstream culture … the central threat to its ability to perform this task comes from the mainstream public culture for two reasons. First, that is the culture to which the greatest number of families already tip their hats, and so it enjoys something close to hegemony outside school. Second, unlike any particular home cultures, its proponents collectively deploy massive resources to influence children and have numerous points of entry into most of their lives (pp. 214-215).

Public Education, as a liberal institution, has *a duty to develop the capacity for autonomy* in students rather than greater buy-in to capitalist consumer culture, which is already so prevalent in public and family life. Moreover, the more exposure individuals have to corporate sponsored consumer culture during their upbringing, the more likely they will be to support capitalist economic structures, which are unsustainable.

Michael Apple (1995) mentions that attempts to bring "school policy and curriculum into closer correspondence with industrial needs" are sometimes very overt, but they are often very subtle as well (p. 126). Moreover, it is the overt attempts that tend to distract critics of capitalist-friendly education from keying into more covert attempts, and this is said to open the door for greater control of labour by capitalist owners. Specifically, Apple mentions that capitalists are motivated to find ways to "expand the use of labor to make it more productive" (p. 128), which is ultimately accomplished by supporting curricular materials that assist in the creation of "the possessive individual, a vision of oneself that lies at the ideological heart of corporate economies" (p. 138). Apple refers to this type of control as "technical control." Technical control is a form of control that resides "at the level of social practice *within* the routine activities of schools" (p. 126). "They are controls embedded in the physical structure of the job" (p. 128).

Capitalists have found ways to assert technical control in both schools and the labour market. Where once the goal of education was to help individuals become autonomous, it has now become geared towards preparing them for competition in the labour market. As a result, many individuals are likely to leave school with the impression that their worth will be determined by the quantity and

quality of material goods they possess, which may best be obtained through "organizational mobility and advancement by following technical rules" (p. 140). The widespread sale of prepackaged lessons (i.e., "systems") to schools/teachers by corporations, for instance, contributes to the deskilling of teachers, as these materials are made to specify instructional procedures, student responses, and evaluative activities. This is similar on job sites (e.g., factories) where in many cases workers have become mere attendants to productive machines. As teachers and workers are deskilled, it becomes easier to lower the credentials needed for these positions. In the labour market, this makes workers easily replaceable, affording capitalists even more power over their workers.

Globalization and Standardized Assessments. "Canada's growing integration into new global economic and political alignments is forcing a reassessment of how education should best be employed for competitive advantage" (Wotherspoon, 2004, p. 15). Standardized assessments facilitate the spread of capitalism by promoting competitiveness between (and within) different schools. One reason that standardized assessments are valued in education is that they allow teachers to discover the strengths and weaknesses of their students relative to other students in their district, province or state. Moreover, standardized assessments are used all over the world, so it has become possible to compare students by nation as well. National and provincial governments in Canada and the US tend to favour standardized assessments (especially those that assess numeracy and literacy) for this reason as well as to assess the response of students to different policies and curricula (Torrance, 2006). The standardization of skills and knowledge in public schools also supports a globalized (world) economy because standardized merits make it easier for corporations to meet their demand for specific competencies.

The negative implications of using standardized assessments in schools that are not commonly discussed include teacher comparison, "teaching to the test," and large class sizes. Moreover, the former tend to effect the latter. Standardized assessments are used to compare students to one another, but the underside of this is that different test scores can also be used to assess the competency of teachers.

Some schools even rank their teachers according to how their classes perform on standardized exams. In order for teachers to avoid a low ranking, they may feel it is necessary to do whatever it takes to increase the performance of their students (Ball, 2006). One such solution to this issue is teaching to the test to ensure that students perform well on standardized assessments. For example, in England where standardized testing is very prominent, "reports by the government's own Chief Inspector of Schools now testify to the decline in arts and humanities in the English primary school curriculum, as schools concentrate on what is being tested…rather than what is important" (Torrance, 2006, p. 834).

Standardized assessments gain comparative power as educational knowledge and skills become increasingly harmonized between nations. Moreover, as the quantity and quality of comparative data increases, the opportunity for greater transparency into educational processes and performances also increases. The state uses this opportunity to ensure that state-sponsored educational directives are met to specific standards. However, the use of this data to measure the performance of classroom teachers has had the effect of reducing their status as professionals. "The move to a small, strong state that is increasingly guided by market needs seems inevitably to bring with it reduced professional power and status" (Apple, 2006 [2001], p. 478). "Where once teachers were seen as relatively autonomous professionals now, because of the demands for testing, we are entering what Hargreaves calls the 'post-professional age'" (Lauder, Brown, Dillabough, & Halsey, 2006, p. 51). What is more, as the opportunity for greater transparency increases, educational processes can paradoxically become more opaque, which is the result of both teachers and students fabricating their performances to manipulate evaluations. "Technologies and calculations which appear to make public sector organizations more transparent may actually result in making them more opaque. …[T]he particular disciplines of competition encourage schools and universities to fabricate themselves—to manage and manipulate their performances in particular ways" (Ball, 2006 [2001], p. 697).

School rankings are made available to parents through league table publications, opening the door for market mechanisms in public education.

Moreover, increasing marketization in education tends to sponsor greater competition between schools. For example, in localities where there are very few restrictions on choice of school, parents (mostly those who are capable of making the appropriate travel arrangements for their children) are encouraged to shop around for the school they believe will give their children the best education. However, league tables are ranked in a hierarchical fashion, making some schools look obviously more desirable than others. Consequently, some schools become very popular and over-crowded whereas others become relatively unpopular. Furthermore, a school's funding is often dependent on how many students it has. Hence, schools that do not offer specialized programs or that do not place well in league tables stand to be underfunded.

Schools that are chronically under-populated (and, thus, also underfunded) inevitably run the risk of closing down. This forces individuals in less popular schools to find a different school to attend and forces other schools to accept these individuals. The general result is increasing student/teacher ratios, which can be seen in many urban schools in Canada and the US. In the US, some schools have become so incredibly popular (and some incredibly unpopular) that lotteries are used to determine eligibility. Large class sizes likely make the implementation of progressive, child-centred instruction more difficult for teachers by forcing them to make use of efficient teaching methods, many of which happen to be traditional, direct-instruction methods. Thus, although pre-service teachers are taught to make use of child-centred instructional methods, many are likely unable to do so, and this keeps schools from becoming more progressive in general. This stagnation brought on by large class sizes and traditional content represents a significant barrier to making education in Canada and the US more sustainable, as any proposed educational framework for sustainability should be embodied by progressive educational content and child-centred instruction.

The goal of anti-racist educational practice is to develop students' consciousness both of race and of the intersections between racial and other forms of oppression.

-George J. Sefa Dei (2008, p. 61)

Education for social development is primarily concerned with issues of poverty, illiteracy, gender inequity, racism, homophobia, … human rights, and peace.

-Yangsheng Guo (2008, p. 73)

Any school curriculum that marginalizes or makes invisible the lives and experiences of girls and women is at its essence undemocratic.

-Jennifer A. Tupper (2008, p. 74).

Chapter Four: Social Sustainability and Public Education

Most groups that have been historically marginalized in Canada and the US remain on the margins of society today despite any social gains they may have made in the past. That is, while many of these groups have been able to achieve *absolute* social and economic gains, they have yet to obtain significant *relative* gains. For instance, despite outperforming boys in grades K-12 and increased participation in paid labour since the 1970s, "Canadian women continue to be economically and culturally disadvantaged by gendered divisions in paid and domestic labour" (Fenwick, 2004, p. 182). Likewise, Aboriginal groups have made some progress with respect to educational achievement, but still have not been able to significantly close the achievement gap between themselves and non-Aboriginal groups. As Kanu (2008) suggests, this is largely due to the fact that "Aboriginal peoples continue to suffer the after-effects of colonization" (p. 141). This is similar in the United States, as "almost all major cities are segregated by race and class, concentrating and isolating the poor" (Mickelson, 2000, p. 24). The fact that traditionally marginalized groups continue to experience unequal opportunities in Canada and the US is unacceptable considering the duty of liberal-democratic states to minimize discrimination and mitigate inequities. "The inherent assumption of a democracy is the understanding that each citizen functions in a framework of equality and has an equal opportunity to participate in, and engage with, the society they live in" (Moreno, 2010, p. 64).

The continued oppression of marginalized groups poses a threat to democracy. Individuals who are marginalized tend to have lower self-efficacy and thus lack agency, and this puts many of them at a disadvantage when it comes to pursuing life goals (Gecas, 1989; Green, 2010). The reduced agency that marginalized peoples experience is also likely to hinder their participation in political matters. "[H]uman agency … is the power or ability and choice to act," and it is "crucial for participation in personal, cultural, economic, social and political life" (Ghosh, 2008, p. 109). Consequently, marginalized individuals are less able to exercise their democratic rights. Oppression is incongruent with the principles of moral equality and democracy, so it should be considered socially unsustainable.

As Paulo Freire (1993 [1970]) has suggested, *both* the oppressor and the oppressed are subject to the harmful effects of oppression. He states, "the oppressor … is himself dehumanized because he dehumanizes others" (Freire, 1993 [1970], p. 29). Empirical links between poverty and crime have also been established, which suggest the conditions of poverty marginalized groups often experience put all individuals and groups at risk of increased exposure to acts of violence and crime (Robertson, et al., 2007, p. xx; Sachs, 2005, p. 331; Wilkinson, 2011). Nations can also contribute to poverty abroad through the consumer choices of their citizens and, more importantly, their foreign policies. As such, oppression has the potential to increase the prevalence of violence and crime both domestically and abroad. Thich Nhat Hanh (1992) states, "The affluent society and the deprived society inter-are. The wealth of one society is made of the poverty of the other" (p. 98). As a result, it should be in the long-term interests of those responsible for marginalizing others to work with oppressed groups to eventually dismantle systems of oppression. It is assumed far too often that those who oppress others lack sufficient reason to abandon their oppressive behaviours. Oppressors are blinded by the advantages and materialistic benefits they receive from oppressing others, and this helps keep them from fully realizing the common benefit to minimizing oppression.

This has implications for reform in educational contexts considering the role education could play in helping individuals to understand *oppression is universally harmful*. For example, individuals could be taught about the links between oppression, poverty and crime in order to demonstrate why oppression is socially unsustainable. Furthermore, it has been suggested that certain segments of society often *use the education system itself* (unintentionally, or perhaps intentionally) to maintain their social and economic advantages. As a result, education officials and their agencies must carefully consider research on the links between education and oppression to better understand how public education contributes to oppression. Education systems in Canada and the US must first acknowledge their own contributions to oppression if they want to be effective in helping to minimize it in schools and eventually the broader society. Any proposed plan for integrating social sustainability outcomes into school curriculums must be anti-oppressive at its core.

Education's Contribution to Continued Oppression

The role public education plays in perpetuating systems of oppression in Canada and the US will be explored in this chapter in order to suggest how education may be reformed to:

1. Make educational opportunities more equal, and
2. Eventually help minimize oppression in the broader society

One aspect of public schooling in Canada and the US that is most problematic with respect to transcending systems of oppression is the tendency for educational content and instruction to be kept morally neutral. This is not surprising, as liberal educational theory generally tries to minimize inculcation as much as possible. However, remaining neutral on matters of oppression is inconsistent with a *true* liberal education. "Any system, which does not develop consciousness/awareness of one's condition, is not education in the real sense. To be educated is to question and act to change oppressed situations" (Ghosh, 2008, p. 109). Oppression clearly contradicts moral equality, poses a threat to democracy, and increases instances of violence and crime. Furthermore, these harmful effects are *universal*,

strengthening the argument that anti-oppression subject matter ought to be made explicit in public education in Canada and the US.

A central goal for an educational framework for sustainability, then, is to address oppression in schools from a moral standpoint. This would include teaching individuals that oppression is immoral and unsustainable for the reason that it is unfair and affects *everyone* adversely. Such an education would seek to teach individuals that, though they are free to some extent to pursue the life they desire, they also have good reasons to care for the welfare of others and to recognize the contribution diversity makes to quality of life. It is also important for individuals to understand that systemic oppression is pervasive in liberal-democratic nations, such as Canada and the US, despite their focus on individual rights. Due to their preoccupation with individual rights and justice, it becomes easy to overlook systems of oppression that continue to operate within Canada and the US as well as how these nations contribute to oppression abroad.

It is not enough to *encourage* schools and teacher training programs to address issues related to oppression in the classroom. The explicit teaching of anti-oppression content in primary, secondary and post-secondary schools must be *ensured*. The best way to do this would be to implement anti-oppression learning objectives into their curriculums. And, given the importance of protecting equal opportunity, classroom lessons that focus on anti-oppression should be received throughout one's educational program (as opposed to being packaged into a handful of disjointed units over one's educational career). Students should also be held accountable for learning anti-oppression content. In order to accomplish this, students could be assessed at the end of their schooling to ensure that acceptable standards have been met. For instance, those who fail to meet certain standards (with respect to anti-oppression learning outcomes) could have their educational merits withheld until acceptable standards are met. High schools in Canada and the US require students to write diploma exams for the purpose of ensuring that individuals leave school with the KSAs necessary to survive public life autonomously. The fact that school curriculums in Canada and the US do not similarly ensure that individuals learn how to counteract systemic oppression is a

deep contradiction existing within liberal educational and political realities. A healthy democracy requires its citizens to possess knowledge and skills pertaining to both traditional academic and moral content. However, education systems in Canada and the US continue to focus on teaching academic KSAs while shying away from teaching moral KSAs.

When it comes to post-secondary teacher training programs, it would be ideal to have students become (more) aware of their privileges as well as how privilege generally functions in school settings to benefit some and disadvantage others. The overarching goal related to integrating anti-oppression outcomes into teacher training programs would be to have future teachers leave post-secondary institutions with a *deep understanding* that social inequities are unacceptable if we are to take fairness and sustainability seriously. One implication of this goal would be to train teachers to *actively* prevent and dismantle instances of oppression within schools and their communities. Post-secondary lessons that focus on privilege could also be extended to the context of the broader society to demonstrate that unearned privilege results from systemic social inequities.

Given that post-secondary education is very expensive in Canada and the US, it is likely that the majority of individuals completing education degrees already come from relatively privileged families. This places extra importance on teaching education students about privilege as well as what they can do to help minimize the effect it has in schools. Pre-service teachers who have experienced inequities could also be encouraged to share their lived experiences with classmates in order to help bring greater meaning to more theoretical lessons and discussions related to oppression. Story telling of this sort could be used to generate classroom discussions on how systems of oppression operate in nations that value democracy and individual rights. In order to host such discussions, teachers would have to create and maintain a safe/caring classroom environment for students who want to share their experiences. Otherwise, students may feel uncomfortable disclosing personal information to their peers.

Unequal Origins of Public Education in Canada and the US. In the US, it is impossible to deny that public education was initially setup to benefit

some more than others based on past segregation of schools between Caucasian and African Americans. Moreover, despite formal desegregation, schools in the US continue to be segregated by race and class. In many large cities in the US, for example, where urban populations and public schools are predominantly black, urban schools receive fewer resources and are more likely to hire teachers who have teaching certificates (rather than teaching degrees). In the US, "[m]ost school districts depend largely on local property taxes, and since most Americans live in areas segregated by class as well as race, the disparities are acute" (Shipler, 2005, p. 293). Such educational inequities have encouraged African Americans to enroll in controversial Afro-centric schools that focus on black culture and histories. The desire of African American parents to send their children to Afro-centric schools brings attention to their desperation to obtain more equal educational opportunities for their children. It also signals the failure of the US government to rectify inequities. Primarily, the Afro-centric school movement acts as a reminder that racism is still pervasive in the US and that major school reforms are needed to sufficiently address these issues.

In Canada, where the quality of public education is relatively more consistent between geographical locations (perhaps excluding Aboriginal reserves), there is a tendency to assume that public education systems were setup to be more egalitarian. Kristen McLaren (2004) refers to this assumption as "the myth of British egalitarianism." In reality, African Canadians were initially forced into separate schools similar to African Americans. This was clearly unfair. Furthermore, the British egalitarian myth has been promulgating through the popular belief that African Canadians desired to be segregating into separate schools. However, qualitative evidence suggests this is untrue. African Canadians actually desired to be included in common schools, (partially for the reason that they still had to pay the common school tax), though they were intentionally barred from doing so (McLaren, 2004).

Canada and the US also have very poor records with respect to the treatment of Aboriginals. This poor track record has even prompted the Canadian government to formally apologize for its past oppressive actions. Continual poor

treatment of Aboriginal peoples in Canada has also lead to the recent "Idle No More Movement," which seeks to bring different Aboriginal groups together in solidarity with one another to collectively challenge oppressive social structures that still exist within Canada. Apologies will continue to mean nothing to Aboriginals in Canada without serious commitments to bring about greater equity, which includes closing the achievement gap between Aboriginal and non-Aboriginal groups. One of the first steps to finding a solution is to acknowledge that Canadians are still very racist towards Aboriginals. Once students have been brought to fully acknowledge their racism towards Aboriginals, they should be taught that such racist attitudes are morally unacceptable. Moreover, closing the achievement gap between Aboriginals and non-Aboriginals will likely be an enormous undertaking considering the oppressive legacy residential schools continue to leave behind.

The residential school program was a systematic attempt by the Canadian government to detach Aboriginals from their language and culture, which has distorted their personal and collective identities. Moreover, the official stance of the US government towards cultural assimilation has lead to similar effects for Aboriginals in the US. "As it should be, authentic identity is one of the most important possessions a person could have" (Ghosh, Abdi & Naseem, 2008, p. 59). Moreover, a "stable, authentic identity is essential for what Paulo Freire (2000 [1970]) has called critical self-awareness or *conscientization*, which is a pre-requisite for sustainable personal advancement and long-term community development" (Ghosh, et al., 2008, p. 62). Saying that residential schools and assimilation policies have negatively affected opportunities for Aboriginals is a serious understatement.

Similar to current trends in the US, continued oppression has motivated Aboriginal groups to attend charter and/or other alternative school programs, where Aboriginal histories, culture and languages are integrated into school settings and curriculums. For example, Mother Earth's Children's Charter School (MECCS) is a charter school in Alberta (the only Canadian province that allows charter schools) with an Aboriginal focus. The school's mission statement is to

"wholistically nurture, guide and challenge each child's spiritual, intellectual, physical and emotional self through traditional Indigenous teachings." Similarly, in the US, the Hawaiian Charter School Movement attempts to provide school options for Aboriginal Hawaiians to receive culturally sensitive education in an attempt to "advance Hawaiian culture for a sustainable Hawai'I."

Due to these initial, race-based exclusions, it is nearly impossible to suggest that public education was fashioned on egalitarian principles. Rather, systems of public education were fashioned by particular segments of society (i.e., white, able-bodied, heterosexual males) chiefly for the benefit of those segments. Whether this was done intentionally or not is of little significance. What is of most significance is the fact that these historically privileged segments of society have retained their advantages over time. This alone provides strong evidence to suggest that, although schools have become more equitable in certain ways, they continue to embody the culture of the dominant class, and this keeps non-privileged segments of society at a disadvantage.

Even though the institution of education is more often touted as a "the great equalizer," many sociological and educational theories suggest education plays a role in maintaining (or even strengthening) inequalities (Katz, 1976). For instance, it can be noticed that inequality continues to persist in both industrialized and non-industrialized nations even after the mass expansion of public schooling (Young, 1990). "Nor has social mobility increased appreciably over the last century in Canada, despite the massive increases in expenditures in education … Inequalities are by and large reproduced in the next generation by the educational system. The best predictor of determining who is most likely to make the greatest use of education and, consequently, be allocated to the highest positions in society is not the ability or motivation of the individual, but rather the position that his or her parents occupy" (Young, 1990, p. 165). "Indeed, if anything, the link between parental income and the education of children has strengthened" (Lauder, et al., 2006, p. 23). In the US, the "educational system operates in a way that it reproduces the existing structure of inequality in the larger society. It achieves this end, first of all, by promoting an ideology that

proclaims schooling to be the great equalizer and the main avenue for upward mobility. Second, inequality is perpetuated through a multi-tiered system of education made up of elite schools, average schools, and horrible schools" (Perrucci & Wysong, 2006 [1999], p. 889).

Social and educational theorists, such as Pierre Bourdieu and Michael Apple, suggest that middle class parents often use public education systems to maintain their social-class advantages over working-class families. Moreover, there are many ways middle class parents accomplish this. In particular, Bourdieu's ideas on capital and habitus help to make clear *how* these social advantages are maintained. Stakeholders in education that are concerned with educational inequities tend to focus on two forms of capital, which Bourdieu referred to as cultural and social capital. Much attention is paid to these two particular forms of capital, as they have been shown to influence and (to some extent) explain educational and occupational success and failure. In general, the middle class tends to have more social and cultural capital than the working class, and it is this difference that characterizes the "class habitus" of each class. "Bourdieu argues that a class habitus tends to reproduce the conditions of its own reproduction 'unconsciously'. It does this by producing a relatively coherent and systematically *characteristic* set of seemingly natural and unconscious strategies—in essence, ways of understanding and acting on the world that act as forms of cultural capital that can be and are employed to protect and enhance one's status in a social field of power" (Apple, 2006 [2001], p. 477).

The Role of Cultural Capital in Maintaining Advantages. Public education systems have been fashioned by the middle class in such a way that they have come to embody the culture of the middle class. Policies and processes that govern education also tend to reflect the views and interests of the middle class. This undoubtedly puts the working class at a disadvantage. "It is Bourdieu's thesis that educational institutions, rather than being socially neutral, are part of a larger universe of symbolic institutions that reproduce existing power relationships. The culture that is transmitted and rewarded by the education system reflects the culture of the dominant class" (Bellamy, 1994, p. 122). The

common thread to all forms of capital is the ability to generate income. Hence, cultural capital can be used to help generate income, which can be further used to help meet personal goals. However, in order for educational opportunities to be more equal, all individuals should start schooling with more or less an equal share of capital, and this suggests that students and their parents should be taught how to maximize their chances for success in primary and secondary educational settings. That is, schools should attempt to increase the cultural capital of individuals coming from working-class families any way they can.

Many of the strategies that middle class parents use to maximize their success in the education system have been identified, and this information could be shared with all students and parents to help make educational opportunities more equal. For example, there are a number of psychological traits associated with members of the working class that have been shown to put them at a disadvantage in school contexts. “The lower class family does not value education too highly because in part it is a privilege beyond their horizons of opportunity, and at the same time, lacking education themselves, they fail to appreciate its value and to encourage their children” (Porter, 1965, p.195). Moreover, “the essence of lower class position is the belief that one is at the mercy of forces and people beyond one’s control, often, beyond one’s understanding” (Kohn, 1969, p. 189). Sharing information of this sort with parents would be analogous to teaching students to learn test-taking skills in order to increase the likelihood that those who possess the skills intuitively do not have an advantage over other students. “Schools, however, do not teach the techniques required to receive and decode culture. For those students who already possess the requisite cultural resources, adjustment to school is facilitated, and academic achievement is enhanced; children who lack first-degree experiences are handicapped” (Bellamy, 1994, p. 122). Providing parents and students with this information surely would not eliminate disadvantages for individuals coming from working class families, but it would give parents and their children the opportunity to understand how they might be at a disadvantage relative to other families and their children.

Allowing for morals in public education makes teaching individuals to value learning easier and more effective due to the fact that pro-learning messages could be made explicit. This could be done through inculcation in earlier grades and by teaching students that those who value learning are more likely to have greater opportunities later in life. As Jencks (2007) suggests, "While it is impossible to ensure that all children value learning equally, the way in which we organize schools can surely *reduce* the gap between students whose parents have taught them to value learning and students whose parents have not" (p. 247). The quality of this kind of education could also be supplemented by drawing on research that deals with factors affecting self-efficacy in educational contexts in order to ensure that students gain sufficient confidence they need to succeed in education.

School systems should attempt to enhance students and parents' cultural capital in order to help make educational opportunities more equal, but it is also important to note that this deficit-strategy is more of the short-term solution. That is, taking efforts to enhance the cultural capital of traditionally marginalized groups may help these groups protect themselves against certain oppressive social structures (such as those in the public school system), but this accomplishes very little in terms of preparing individuals to challenge and eventually dismantle the oppressive structures themselves. Hence, trying to make cultural capital more equal among students is an important and worthwhile task *so long as these efforts are combined with those that prepare individuals to challenge oppressive social structures*. For example, students could learn about the history of public schooling in Canada and the US to better understand how it was set up to benefit some groups more than others. Furthermore, demonstrating the ways in which traditionally privileged groups have been able to maintain their advantages over time would help to expose the deeper oppressive structures that exist within our societies and how they operate. Learning about these deeper oppressive structures would entail teaching students more about the political nature of education.

While this thesis has not explored in detail the mechanisms by which knowledge is turned into action, educational practice should not stop at this point.

That is, educational practice must necessarily lead from thinking about oppressive social structures to actually challenging them. If an educational framework for sustainability did not motivate students to act on the knowledge they receive in schools (to bring about more sustainable circumstances), then the framework would have to be revised to bring about this reform-based goal. One way that the framework could motivate students to act on the knowledge they receive is by providing them numerous opportunities to practice what they learn.

Certainly, it does not take long for one to recognize that official educational policies implemented in Canada and the US are still highly controlled by appointed ministers and other non-elected officials in education (especially in curriculum development and standardized testing). The devolution of responsibilities to boards of education that reside closer to schools is deceiving in this way. For instance, when governance becomes decentralized (i.e. loosened), as is common in education in Canada and the US, there is often a corresponding tightening of accountability that follows. This phenomenon of "loose-tight coupling" is employed to achieve greater efficiencies, but tends to promote strict regiments of accountability and transparency at the same time (Vidovich, Yang & Currie, 2004). As a result, citizens are likely to believe that schools represent local interests (including those of the working class) more than they really do. Again, this exemplifies the tendency of government officials to promote certain ideals as if they are abstract and universal. But, upon closer inspection, such ideals are seen to more accurately reflect the interests and culture (i.e., the "habitus") of the middle class. "[I]t does appear clear from the record that school systems have reflected social class differences from their inception" (Katz, 1976, p. 403). The implications of this reality suggest that children from middle class families are likely to gain access to academic credentials more easily than peers who come from working class families.

The Role of Social Capital in Maintaining Advantages. Like cultural capital, individuals can use their social capital to help secure social advantages. Yet, unlike physical capital, it is hard to pinpoint instances where cultural and social forms of capital are at work. This is due to the fact that cultural and social

forms of capital are relatively intangible. “If physical capital is wholly tangible, being embodied in observable material form, and human capital is less tangible, being embodied in the skills and knowledge acquired by an individual, social capital is less tangible yet. For it exists in the *relations* among persons. Just as physical and human capital facilitate productive activity, social capital does as well” (Coleman, 1988, p. 100-101). Moreover, there are marked differences between the social capital of working and middle class parents. “In short, both the architecture of parental networks and their use vis-à-vis the school vary dramatically by class” (Horvat, Weininger & Lareau, 2006 [2003], p. 465). For example, Horvat, et al. (2006[2003]) show that middle class parents tend to form networks with parents of school friends and parents they meet through organized activities, whereas the support networks of working class families tend to remain limited to kinship. Furthermore, it has been shown that middle class families participate in organized activities much more frequently than working class families. This is problematic because such “network differences are clearly associated with differences in the way that problems with the school are handled” (Horvat, et al., 2006 [2003], p. 465).

Whereas issues at school are often dealt with individually by working class parents (and with little support from family members), middle class parents often act on school issues collectively with other parents. Moreover, middle class parental networks usually include more professionals, who may be utilized to help bring about preferred outcomes for middle class children (i.e., professionals may be utilized to challenge particular policies and decisions made by educational authorities). This is much different for working class parents who have often internalized particular attitudes toward authority that make them less likely to challenge authority (Gilbert, 2008). *If* working-class parents do attempt to challenge authority, such attempts are more likely to be unsuccessful due to their relative lack of access to information, expertise and authority.

What if anything could be done to rectify the advantage middle class parents receive from their social networks? While it may be helpful to educate parents on the differences that exist between working and middle class social

networks (and the way these differences affect how school matters are addressed), it is highly unlikely that working class parents would (or could) alter their social networks in light of this information. However, such information should still be shared so students and their parents have opportunities to learn how individuals gain unfair advantages over others in school settings.

Minimizing the advantages some gain from an uneven distribution of social capital may be most effectively addressed through what Anders Breidlid (2007) refers to as "state-generated social capital." Breidlid, who has spent much time learning about the education system in Cuba, noticed that cultural and social forms of capital tend to have less influence on the individual success and failure of Cuban citizens. In Cuba "the government's massive material, ideological and psychological investment in education, with free education for all, a ban on private schools (with the exception of international schools) and a conscious attempt (with at least partial success) at bridging the rural–urban educational gap are only a few of the factors that give credence to the theory that state-generated social capital (or collective social capital) seems to reduce the importance of what is traditionally perceived as cultural capital" (Breidlid, 2007, p. 631). And, "while Cubans are, indeed, strained by the economic crisis, virtually no children live or formally work on Cuban streets. This is because of the elaborate Cuban social welfare system that serves as a tightly woven safety net even during the continuing economic crisis. Consequently, few Cuban children suffer from the underlying grinding poverty endured by more than 60 percent of Brazilian children and 23 percent of U.S. children" (Michelson, 2000, p. 26). The governments of Canada and the US could help protect equal educational opportunities by enhancing the social safety net, which has been steadily corroded since the 80's when it became politically unpopular to support welfare state practices. However, enhancing the social safety net is also unlikely to happen considering that the Washington Consensus (which promotes privatization and deregulation) remains influential in Canada and the United States today.

Instead of strengthening the social safety net, schools could seek to enhance the collective social capital of its students and their families by

implementing a moral framework for sustainability in education. Such a framework would allow teachers to motivate their students to go beyond having mere respect for others by teaching them to value and care for others. As students, and eventually their parents, come to better understand their responsibilities and self-interest to help care for others, they should be less preoccupied with using their capital to gain an edge over others. Instead, individuals who are taught to cooperate with others (rather than compete with them) may be more concerned with social (rather than individual) gains. A less competitive and individualistic education system in Canada and the US would help minimize the effect social and cultural capital has on giving some an advantage over others, and this would in turn help make educational opportunities more equal.

Making Better Use of Equity-Based Measures and Evaluations

The purpose of integrating anti-oppression outcomes into school curricula is to ensure that individuals leave school with both academic and moral KSAs. The overarching purpose of ensuring that individuals learn certain moral KSAs is to help minimize inequities in education and eventually the broader society. However, without mechanisms for evaluation, there would be no way to tell if curricular reforms toward greater sustainability are fulfilling their intended purpose. Therefore, measures of equity in education must be developed and/or refined if education agencies are to take social sustainability seriously. For instance, research that helps to determine the strength of intergenerational transmission of poverty and prosperity could be furthered (e.g., studies that map-out correlations between the educational achievement of students and the income and/or educational level of their parents) in order to more accurately determine distributions of educational opportunity. The more accurate this information is, the more effective school policies can become in bringing about greater equity in educational contexts.

Once reliable measures have been developed, standards could be set and performances evaluated. Moreover, it would be ideal to have these measures gauge educational opportunities by race, gender, ability level, school, and geographical region. Similar to league tables, equity-based rankings could be

utilized by education agencies to help ensure the creation of more sustainable educational policies. If equity-based evaluations were followed closely, policy makers would be given insight into how educational opportunities differ between races, genders, ability levels, schools and regions. This would provide education officials and policy makers with the information needed to more accurately target their support for underprivileged groups, schools, etc. Equity-based evaluations and rankings could also be used by Canadian and US governments to assess the level of equity in the labour and housing markets. Without accurate, equity-based evaluations for the labour and housing markets, it would be extremely difficult to assess whether or not opportunities in the broader society are actually becoming more equal over time.

Lastly, poor results with respect to achieving greater equity (and thus sustainability) in education in Canada and the US should not deter public education agencies from trying to get it right. If good measures to evaluate equity in education existed and showed curricular and other structural reforms to have negligible effect (regarding the reduction of educational inequities), then educational agencies could seek to alter and/or strengthen anti-oppression messages in curriculums and schools until evaluations yielded signs of positive change within education and the broader society. In general, current measures of equity in education and the broader society could be further developed and better utilized to ensure greater social sustainability.

The public school curriculum is limiting the knowledge base of our children. They are being denied access to knowledge bases that they need to sustain themselves and the planet in the future.

-Marie Battiste (2000, p. 202)

[D]evelopment simply as an aggregate of economic growth cannot continue much longer—natural constraints prevent this, and there are abundant natural signs of approaching catastrophe.

-Richard Peet & Elaine Hartwick (2009, p. 275)

The myth that the body can be controlled is part of the general assumption of the modern Western scientific project that nature can be controlled.

-Susan Wendell (1996, p. 73)

Chapter Five: Environmental Sustainability and Public Education

Chapter five centres on the unsustainable rate of consumption in Canada and the US, the harmful effect of this consumption on the environment and society, and the role education can play in helping to address such issues. Public education continues to contribute to ignorance and apathy towards environmental issues by inadequately addressing them in schools. "Our children's future planet is not secure, and we have contributed to its insecurity by using the knowledge and skills that we received in public schools" (Battiste, 2000, p. 202). Environmental issues, such as global warming and loss of biodiversity, are some of the biggest issues currently facing humanity. Furthermore, the magnitude of these issues is increasing over time due to population growth, increased use of personal technologies, as well as other factors, such as deforestation. As a result, public education in Canada and the US should teach individuals more about environmental issues and what they can do to mitigate them.

Scientific evidence suggests that human behaviour is harming the natural environment. In the article *Extinction Rates Past and Present* (1989), Norman Myers mentions that, "although extinction has always been a fact of life since life started almost 4 billion years ago, during the last 600 million years the average background rate of extinction (i.e. the rate before the arrival of humans) has been no more than approximately one species per year. … Today's rate can be

estimated through various analytical techniques to be a minimum of 1000, and possibly several thousand, species per year" (p. 39). This poses serious consequences for humans considering that societies benefit from natural environments that are biologically diverse. Continued species extinction and declining biodiversity has spurred the United Nations Environmental Programme to name 2011 – 2020 the "Decade on Biodiversity" to encourage individual and collective action on issues surrounding biodiversity.

Climate change is also a major threat to Canadian and US societies. In 2007, the UN's Intergovernmental Panel on Climate Change (IPCC) was awarded the Nobel Peace Prize for their scientific investigations into the atmospheric greenhouse effect. The official Nobel Prize website states, "the first four main reports submitted by the Climate Panel between 1990 and 2007 were based on a coordinated program of research by several thousand experts in over a hundred countries. The reports stated that climate change is accelerating, that the changes are to a significant extent man-made, and that the need to adopt counter-measures is urgent if we are to prevent a global climate crisis from arising in the near future and threatening the basis of human life." This is problematic considering that atmospheric concentrations of greenhouse gases have "been continuously increasing since records began" (OECD, 2012, p. 10). Moreover, climate change will only ever exacerbate issues related to declining biodiversity, making it an even more urgent matter.

According to the IPCC, climate change is also likely to exacerbate human conflicts (both within and between nations), as already scarce resources become subject to increasing stress. The OECD states, "Inadequate attention to climate change could have significant social consequences for human well-being" (OECD, 2011, p. 5). Moreover, due to the fact that impacts of climate change tend to fall more heavily on the poor, the effects of climate change are likely to hinder progress on global poverty reduction (Skoufias, Rabassa, & Olivieri, 2011). This has lead multilateral organizations, such as the OECD, to suggest "public and private financing for climate action will need to be scaled up significantly in the coming years" (OECD, 2011, p. 1). This statement mirrors the position of many

environmental educators, such as Julie Johnston (2009), who argues that "we need to start offering the knowledge, skills, values, attitudes, and habits of mind and heart that students need in order to create the best possible future, NOW" (p. 156).

Whereas economic and social sustainability issues are widely interpreted by different people, organizations and segments of society, interpretations of what it means to be environmentally sustainable are more uniform across cultural and political lines. Information with respect to biological limits and human consumption rates has increased over time in both quantity and quality. Such reliable information has enabled the World Wide Fund for Nature (WWF) to more accurately measure humanity's "ecological footprint," which is a measure of ecological sustainability. The ecological footprint looks specifically at the balance between the earth's biocapacity (i.e., its production/recovery rate) and the rate of human consumption, and it is updated yearly in WWF's Living Planet Report. The WWF states, "The Living Planet Report is the world's leading, science-based analysis on the health of our only planet and the impact of human activity." The 2012 Living Planet Report focuses on the "tremendous pressure" humanity is putting on the planet. The dismal reality is that humans are using "50 per cent more resources than the Earth can provide. …By 2030, even two planets will not be enough." The report concludes, "Urgent action is needed to ensure that we can live in harmony with nature" (p. 28).

Given that WWF's Living Planet Report is the most accurate, comprehensive analysis of global ecosystem health, Canadian and US governments should take the recommendations found in the reports seriously by acting on them. Recommendations found in the Living Planet Reports could be used to help guide the integration of environmental education (EE) outcomes into school curriculums, or as it is suggested here, the implementation of an educational framework for sustainability. Additional public financing for climate action could be used to help implement such a framework that deals with climate change. An issue is that, while political leaders tend to give citizens the impression that they are genuinely concerned about curbing large-scale environmental issues, such talk rarely turns into effective action. Rather,

politicians continue to support endless growth strategies, which should be seen as unacceptable considering current biological and technological limits.

The governments of Canada and the US have not only been inactive with regard to tackling environmental problems, they have actually impeded progress by turning their backs on the Kyoto Protocol and by failing to fully cooperate in more recent international climate talks. For example, Canada received five consecutive "Fossil of the Year" awards from Climate Action Network-International (a global coalition of over 450 non-governmental organizations) for doing the most to obstruct international progress on climate change issues.

Similar to politicians, studies show that individuals often fail to act on their pro-environmental values and attitudes. "Despite evidence showing that a large proportion of the public in various regions of the world expresses commitment to the environment, participation in environmentally-supportive behaviour rarely mirrors the strength of this stated commitment" (Huddart-Kennedy, Beckly, McFarlane & Nadeau, 2009, p. 151). One reason for the gap between environmental values and environmentally-supportive behaviours (ESBs) is that "individuals still lack the specific, detailed facts that would enable them to make informed, environmentally supportive decisions" (Huddart-Kennedy, et al., 2009, p. 157). Wray-Lake, Flanagan and Osgood (2010) examined trends in adolescent environmental attitudes, beliefs, and behaviors across three decades and found that another reason for the gap was that "youth tended to assign responsibility for the environment to the government and consumers rather than accepting personal responsibility" (p. 61). "One implication of these findings might be that if government leaders step up to acknowledge the seriousness of environmental problems and offer genuine solutions of sustainability, perhaps young people will listen and follow their example by taking on greater responsibility" (p. 80).

Current school lessons that focus on environmental sustainability are mainly topical and represent only a small percentage of total learning outcomes. Some outcomes, such as teaching individuals how to conserve natural resources, are virtually non-existent in public school curriculums. This brings up an

important question: How are teachers expected to encourage students to be environmentally responsible without showing them how to actually perform ESBs? In Alberta's high school curriculum, grade ten and eleven general science courses both had 21% of their learning outcomes focus on environmental sustainability, which was the highest percentage out of all high school Science and Social Studies courses (excluding Biology). In Social Studies, the range of outcomes focusing on environmental sustainability was 3% - 14%. Furthermore, none of these outcomes actually seek to equip students with the skills needed to perform ESBs. Math and English Language Arts courses contained no outcomes on environmental sustainability (see Table 2 in Appendix).

Strong performances by Albertans on standardized assessments have encouraged other provinces and nations to borrow Albertan educational policies and practices. As a result, the Alberta curriculum has become somewhat of a standard of excellence. However, it should be noted that such a well-regarded school system does not require students to meet acceptable standards with respect to environmental knowledge and skills, as the bulk of exams continue to focus on assessing performances in traditional core subject areas (e.g., Math, Science, Language Arts and Social Studies). This is problematic considering the scale of damage that could result from climate change and declining biodiversity. For instance, social and economic systems are "nested" within environmental systems, meaning that society and the economy are likely to become unstable if ecological systems continue to become more unstable. Public education in Canada and the US thus needs a better measure for excellence—which should depend upon the ability of individuals to demonstrate adequate KSAs in both environmental and traditional subject areas—if it is to take environmental sustainability seriously.

The Need for *Effective* Environmental Education

In order for EE to be effective, it must be taught in such a way that individuals are motivated to adopt pro-environmental attitudes and behaviours, which can ultimately be used to lessen personal environmental impacts. Contrary to popular belief, merely giving individuals information is often not enough to

motivate them replace old behaviours with new environmentally-supportive ones (Huddart-Kennedy, et al., 2009; McKenzie-Mohr & Smith, 1999). Instead, environmental education must take a particular form for it to be effective. This includes teaching individuals detailed environmental knowledge *as well as skills* and outlining barriers and benefits to adopting new environmentally-supportive behaviours. For example, environmental psychologist Doug McKenzie-Mohr shows that individuals are often unaware of why they continue to engage in poor environmental practices and tend to underestimate their habits and the value they place on conveniences. When these individuals do attempt to adopt ESBs, they often do not know how to perform the behaviours and can become easily discouraged from continuing them (e.g., composting; McKenzie-Mohr & Smith, 1999). Most importantly, lessons focusing on environmental sustainability must teach individuals about social and economic structures that are responsible for creating and propagating environmental issues (e.g., state-sponsored continuous growth strategies).

Effective environmental education must be *meaningful* to students in order for such lessons to be fully internalized. Greater meaning could be given to EE lessons by helping individuals form better connections between their personal experiences and the natural environment. Otherwise, environmental concepts (including environmental issues) are likely to be seen as overly abstract and thus irrelevant by students. Seeing that environmental concepts are almost always fairly abstract and complex, outcomes that seek to enhance students' environmental KSAs must take different approaches for different age groups. For example, younger age groups are generally less able to comprehend abstract concepts and gain more meaning from "concrete" learning experiences. As a result, more rudimentary environmental concepts and skills (e.g. gardening) should be learnt in earlier grades. EE lessons taught to younger children could be made more concrete by conducting classes outside when possible so that students can directly observe environmental phenomena. In later grades, environmental education lessons could include discussions and debates that focus on more abstract environmental concepts and phenomena. Direct interaction with

ecological systems would likely benefit individuals in later grades as well. One of the most effective ways to enhance students' connection to nature is simply to increase their exposure to it by having them spend more time outside (Mayer, Frantz, Bruehlman-Senecal & Dolliver, 2009). "[W]e have evolved in a world of lions and bears; of plants and birds and rocks and things. We get pleasure from the natural world" (Bloom, 2010, p. 204).

Most importantly, effective environmental education must seek to build a moral climate (hegemony) in Canada and US where environmental responsibility is considered the norm. Without the creation of a pro-environmental social norm, the teaching of detailed environmental knowledge and resource conservation skills is likely to be ineffective. Given that the proper directives are in place, such a climate could be created relatively quickly within schools and eventually the broader society. For example, it could be suggested that pro-environmental attitudes be inculcated in earlier grades. After being exposed to a pro-environmental school climate over many years, individuals would be hesitant to engage in environmentally irresponsible behaviours for fear of being reprimanded by others. In this way, peer pressure could be used positively to discourage environmentally irresponsible behaviours.

The framework for sustainability presented here should ultimately contribute to a counter-hegemonic movement. The moral aspect of the framework in particular seeks to instill intolerance towards environmental destruction in an attempt to contribute towards a pro-environmental norm in schools and eventually the broader society. In the context of environmental sustainability, this could include moral educational lessons about the dangers of gross consumption and acquisitive attitudes. The understanding for students should be that there is no place for gross consumerism and acquisitive attitudes in a sustainable society.

Research focusing on happiness has shown that, although there does exist a positive correlation between income level and happiness, there are limitations to this relationship. For example, instead of being linear, the relationship between income level and happiness is said to be more logarithmic in the sense that once income reaches a critical (i.e., subsistence) level, it has diminishing influence on

happiness. This is referred to as the "Easterlin paradox" after Richard Easterlin, author of the widely cited study *Does Economic Growth Improve the Human Lot? Some Empirical Evidence* (1974).

Buddhist philosophy also gives reasons for limiting consumption. For instance, in Buddhism, happiness is something that comes from within. An important implication of this principle is that looking for happiness in other things and people is caused by lack of inner happiness. That is, if individuals possessed inner happiness, there would be no reason to look for happiness externally through consumerism and/or by seeking to control others. This is what is meant by "desire is suffering." Research on factors influencing happiness and the Buddhist principle of inner happiness are both useful, as they help explain *why* many individuals in Canada and the US (who enjoy a very high standard of living) still struggle with depression. Moreover, this knowledge could be explicitly taught to students in order for anti-consumerism and pro-environmental messages to be more meaningful.

"Technological Prometheanism" and the "Human Exemptionalist Paradigm"

If Canadian and US citizens see themselves as a part of nature *at all*, they are more likely to view humans as a *special* part of nature. This ontology of separateness, which has been largely associated with Western culture, is common in Canada and the US. Moreover, such a mindset is oppositional to more holistic mindsets that view individuals as relational beings. As a result, the Human Exemptionalist Paradigm (HEP) is likely keeping education systems from realizing the true value of environmental KSAs. The mindset that humans are somehow exempt from the laws of nature stems from the extent to which humans have historically learned to control the environment. Such a mindset is referred to as "human exemptionalism" (Dunlap, 1980), or more generally as "technological prometheanism" (Foster, 2000). Technological prometheanism makes reference to the Greek Titan, Prometheus, who stole the element of fire (a symbol of technology and progress) from the gods to give to humans. The myth seeks to explain humanity's special, god-like powers to control nature.

Indeed, humans are different to some degree from all other species given our ability to control nature, but humans are still subject to the forces of nature to a large extent. This reality is often downplayed (or ignored completely) by people with an exemptionalist mindset. For some, such as transhumanists who fully embrace the exemptionalist mindset, full control of nature represents a human inevitability; thus, partial control is only temporary. Moreover, this mindset generally believes that the more control humans have over nature, the better off humans will be. Nick Bostrom (2005), one of the founders of the World Transhumanist Association (now called Humanity+), sums up the transhumanist project when he says, the transhumanist vision, "in broad strokes, is to create the opportunity to live much longer and healthier lives, to enhance our memory and other intellectual faculties, to refine our emotional experiences and increase our subjective sense of well being, and *generally to achieve a greater degree of control over our own lives*" (p. 7, emphasis added).

Arcury, Johnson, & Scollay (1986) state that most individuals are socialized into the HEP, which is characterized by the "assumption of human separateness from and domination over nature," as well as "beliefs in the inevitability of human progress … in technology as the vehicle of that progress, as the key to human domination over nature and the mechanism of human salvation from natural catastrophes, even those catastrophes resulting from technology" (p. 36). The HEP sustains itself partially through what Susan Wendell (1996) calls the "myth of control," which is central to technological prometheanism. Technological prometheanism assumes that because humans have *some* control over the environment that we must inevitably be able to approach *total* control. In this type of thinking, nature is seen as something separate from humans—something to be dominated. "The essence of the myth of control is the belief that it is possible, by means of human actions, to have the bodies we want and to prevent illness, disability, and death. Like many myths, the myth of control contains a significant element of truth; we do have some control over the conditions of our bodies, for example through the physical risks we take or avoid and our care for our health. What makes it a myth is that people continue to cling

to it even where there is overwhelming evidence against it, and that most versions of it are formulated in such a way that they are invulnerable to evidence against them" (Wendell, 1996, p. 73).

The human exemptionalist mindset sees nature as something that *imposes* "solitary, poor, nasty, brutish" conditions (Hobbes, 2009 [1651], p. 179). In this context, imposition is analogous to coercion. Consequently, those with an exemptionalist mindset often seek to control nature to minimize undesirable experiences that undermine individual preferences and intentions. However, if Canadian and US citizens were able to understand their relationships to the environment and to one another better, they might not need to revert to systems of control. Instead of seeking greater control over nature, *individuals could learn how to act in greater harmony with nature*. Acting in greater harmony with nature (something the WWF's Living Plant Report recommends, see above) would not always guarantee an escape from traditional human limits and undesirable experiences, but these negatives would be greatly overshadowed by the numerous benefits citizens would experience from living more in tune with nature. Without a deep understanding of the dialectic between humans and nature, including how the natural environment is connected to quality of life, many individuals are likely to continue to see nature as an enemy of free choice.

The Ecological Mindset

Similar to the effect of oppression, environmental degradation and destruction has the potential to affect all humans in adverse ways. John Muir (1988 [1911]), founder of the Sierra Club, wrote, "When we try to pick out anything by itself, we find it hitched to everything else in the universe" (p. 110). The purpose of Muir's quote is to bring attention to the general interdependence of things. In the context of ecological sustainability, interdependence means that humans cannot fully escape the effects of their impacts on the environment, as social and ecological systems are intimately intertwined with each other. As Marx (2010 [1844]) was apt to observe, "Man *lives* on nature—means that nature is his *body*, with which he must remain in continuous intercourse if he is not to die.

That man's physical and spiritual life is linked to nature means simply that nature is linked to itself, for man is a part of nature" (p. 36).

A deep understanding of ecology first requires one to understand that they live in an interdependent world. Without such an understanding, personal actions may be perceived to have little to no influence on the well-being of others and the environment. If individuals saw themselves more fundamentally as relational beings (rather than discrete individuals), they would have a hard time exploiting others and the environment. That is, individuals with a more relational mindset know not to exploit others or the environment for fear of being adversely affected themselves. The fact that oppression and environmental destruction continues unabated in Canada and the US is thus a symptom of a ubiquitous mindset that fails to recognize the full implications of living in an interdependent world. This is not surprising considering the highly individualistic culture of Canadians and Americans, including many of their institutions (e.g., education and the "cult of individualism"). The legal system, which is fundamentally based on individual rights, only reinforces the idea that we are first and foremost individuals with separate existences. As a result, the proposed educational framework for sustainability must do as Giroux says and work to "connect the fate of each individual to the fate of others, the planet, and global democracy."

A Case Example. Some societies have had to become more aware of their relationship to the environment than others in order to sustain themselves. In his book *Collapse: How Societies Choose to Fail or Succeed* (2005), Jared Diamond lists a number of factors that have historically threatened the sustainability of societies—one of which directly pertains to how societies interact with their ecological surroundings. For example, Diamond cites changes to deforestation policies in Japan as a key reason why the Japanese were able to sustain a decent quality of life unto the present day. This was unlike the Polynesians of Easter Island whose society collapsed due to heavy deforestation as well as other factors (Diamond, 2005). Small island nations, such as those of Japan and Easter Island, give less isolated nations like Canada and the US insight into the consequences of living within rigid environmental limits.

Unlike the highly mobile, trade-oriented societies of today, the Japanese and people of Easter Island remained isolated for long periods of time, making them unable to secure large amounts of resources from societies overseas. Parallels can be drawn between the experiences of these societies and current environmental issues. For instance, the earth is somewhat analogous to an island in the universe at large. Seeing that there is currently no way to harvest resources from outer space, we should be focusing on understanding environmental limits better (similar to the Japanese). The poor effort Canada and the US place on getting citizens to understand environmental limits (or biological/ecological research in general) puts them closer to the situation of the Polynesians of Easter Island than it does to the Japanese, who altered their behaviour to sustain a decent quality of life. This should be a cause for concern for nations like Canada and the US, who continue to consume far in excess of what they need to live decently.

Environmental Knowledge. As it has been suggested above, a key factor in having individuals adopt and perform ESBs is their level of environmental knowledge. The environmental knowledge of high school students in Canada and the US continues to be very low. In the 80's, assessments of environmental knowledge showed high school environmental knowledge to be deficient, even though the environmental movement had been "highly publicized for over two decades" (Acury, 1987, p. 36; Blum, 1987). Studies conducted in the 90s (Arcury, 1990; Gambro & Switzky, 1996; Hausbeck, Milbrath & Enright, 1992) yielded similar results, leading Gambro & Switzky (1996) to conclude, "Environmental educators have to do a great deal to raise the level of environmental knowledge of high school students" (conclusions section). Unfortunately, since the 1996 Gambro & Switzky study, there have not been any other studies conducted that seek to describe the environmental knowledge of high school students in Canada and/or the US. In this regard, studies that assess the environmental knowledge of Canadian and US high school students should be repeated in order to determine if environmental knowledge in this key demographic has changed since the mid 90's.

Fortunately, Robelia and Murphy (2012) reviewed 15 little-publicized environmental knowledge (survey) studies, giving insight into the level of environmental knowledge of various age groups in the US from 1995 to 2008. Specifically, the review determined that US citizens showed knowledge deficits in many areas, including climate change and biodiversity (although knowledge on biodiversity appears to be increasing). More specifically, participants scored poorly on questions pertaining to the "greenhouse effect" (i.e., the central mechanism of climate change), where, for example, many were unsure of the ozone layer's role. Moreover, one of the studies reviewed found there was "declining agreement from the public that there is solid evidence that the climate is warming" (climate change section). The authors conclude that US citizens require a greater understanding of environmental topics, which is similar to recommendations found in other studies that have assessed environmental knowledge in Canada and the US. For example, Huddart-Kennedy, et al.'s study (2009; n=1664), which looked to determine why Canadians fail to act on their pro-environment values, yielded responses from Canadians that suggested they still lacked the detailed knowledge needed to perform ESBs.

Kaplowitz and Levine (2005) used the same questions in the surveys reviewed by Robelia and Murphy to determine the level of environmental knowledge of students from Michigan State University (MSU). While MSU students were shown to perform better on environmental knowledge items than the general public, only 66% of participants received a passing grade. "One interesting component of the reported results was the relatively low level of environmental knowledge among MSU students in the College of Education. … These results suggest that increasing the level of environmental knowledge of tomorrow's teachers may be both possible and fruitful. Doing so may be one way to help improve environmental education efforts at the K-12 levels" (conclusion section).

An important factor in successfully integrating an educational framework for sustainability is having teachers understand sustainability issues well. Without a deep understanding of sustainability issues as well as a commitment to personal

and collective actions that minimize such issues, students are likely to get inadequate support from their teachers. Moreover, the adoption of pro-environmental attitudes and actions by teachers is one of the easiest ways to facilitate the creation of a pro-environmental moral climate in schools. Teachers often become role models for their students and, consequently, they must be able to demonstrate the pro-environmental behaviours and attitudes they expect their students to adopt. This has many implications for integrating learning outcomes that focus on sustainability into pre-service teacher training programs.

Complexity Theory's Contribution to the Ecological Mindset. The overly individualistic nature of our education system has kept individuals from understanding things, including environmental issues, from a systems perspective. However, the world is fundamentally interdependent and, so, subject matter should be understood in terms of systems, rather than in isolation and abstraction. As such, public education in Canada and the US could make use of systems/complexity theory when it comes to integrating sustainability-related outcomes into school curriculums. Thomas Homer-Dixon (2000) makes use of systems/complexity theory to outline often-complex ecological and socio-political issues. According to Homer-Dixon, there are a number of important systems/complexity theory principles that people can draw on to help put sustainability issues into perspective. The principles are as follows:

1. "[S]ystems with more components are generally more complex than those with fewer parts" (p. 110).
2. "The more causal connections, in general, the greater the system's complexity. … [A] particularly important result of all this dense connectivity is causal *feedback*, in which a change in one component affects others in such a way that eventually loops back to affect the original component. … The important thing about positive feedbacks is that they are inherently unstable: they create self-reinforcing spirals of behavior, and can cause systems to become overextended or unbalanced" (p. 111).

3. "A third key feature of complex systems is the interdependence of their components. … Speaking generally, the larger the part that can be removed from a complex system without affecting the overall system's behavior, the more resilient the system" (pp. 112-113).
4. "The fourth feature of complex systems is their *openness* to their outside environments: they are not self-contained, but are affected, sometimes profoundly, by outside events" (p. 113).
5. "Complex systems normally show a high degree of synergy among their components—a fifth common feature. Synergy means, in everyday language, that the whole is more than the sum of its parts" (p. 113).
6. "Sixth and finally, complex systems exhibit nonlinear behavior—we can't count on things developing in tidy, straight lines" (p. 113).

While there is a lot of disagreement within the field of systems/complexity theory, there are general agreements—many of which are encompassed in the six principles above. This general knowledge should be taught to students in public education to increase the likelihood that ecological concepts (including environmental issues) are well understood, and that such concepts are seen as *connected* to one another in particular ways.

The six principles of systems/complexity theory are imperative to understanding ecological concepts, including environmental issues. For example, as the number of people and technologies increases, so does the complexity of social and economic systems (#1). As social and economic systems become more complex, their components (e.g., financial institutions) also tend to become more densely connected and coupled. As systems become more densely connected and coupled, they eventually start to become less resilient (#3; see Figure 2 in Appendix). This is important because, in the context of ecological sustainability, *resilience is essential*. This is similar for social and economic systems in many ways (e.g., the resilience of key social institutions during economic hardships, or the lack of resilience of global financial institutions that brought about the "Great Recession"). The central issue for humans is that, as social and economic systems

continue to increase in complexity, they require a greater supply of energy to support, and this is somewhat of a dilemma because we depend on a diverse biological environment to provide this energy and other important services (#3). As biodiversity declines, nature's ability to provide valuable services weakens and humans are left to fight off outside pressures (#4; e.g., infestations, or extreme weather events, such as droughts or hurricanes) with less and less assistance from other species. In general, declining biodiversity makes biological systems less resilient (#3).

The increasing frequency of extreme weather events is also a sign that the effects of global warming may be starting to form positive feedbacks (#2). Positive causal feedbacks have the potential to majorly destabilize the environment. For example, continuously burning fossil fuel releases carbon dioxide into the atmosphere, and this in turn drives the average global temperature up (#3). As a result, the arctic sea ice—which has traditionally reflected a significant amount of sunlight back into space—is melting at an alarming rate. As the sea ice melts, the ocean ends up absorbing a greater amount of the sun's energy and loses its ability to store carbon dioxide (#3). This poses a serious risk to humans, as oceans are one of the earth's largest carbon dioxide storages. Warmer ocean and atmospheric temperatures will also cause more water to evaporate into clouds, further contributing to the greenhouse effect (#3 & #2). What is more, as the Northern permafrost melts, large storages of methane (a very potent greenhouse gas) are likely to be released into the atmosphere. This would reinforce a cycle of warming that humans may or may not have the power to keep under control (#2). And, *if* humans are able to adapt to radical environmental changes, it is very likely this would happen amidst large-scale social and environmental damage. The tendency for environmental phenomena to unfold in non-linear and unpredictable ways also makes it hard to determine whether or not human ingenuity will be able to overcome self-reinforcing causal feedback loops (#5 & #6). It is particularly the fifth and sixth principles of systems/complexity theory that support arguments to follow the precautionary principle.

Global warming also introduces a large number of food security risks. Increasing atmospheric concentrations of carbon dioxide has lead to ocean acidification (#3), and this acidification has been a significant factor in the declining health of coral reefs around the world (#3). Coral reefs are used by a host of sea life for at least one stage of their life, and many societies, including those of Canada and the US, rely on marine health for subsistence (#2 & #3). Forests are also one of the earth's largest carbon dioxide storages. Deforestation thus destroys these carbon sinks while making the land more prone to erosion and desertification (#3). Increased erosion and desertification, combined with increasing pressure on oceans, has the potential to jeopardize food security in Canada and the US as well as abroad (#2 & #3).

The principles of systems/complexity theory are fairly abstract, but they can be made more digestible and concrete by placing them in contexts that suit the interests and abilities of different age groups. The examples above would be more suitable for high school students because they rely on numerous other environmental concepts. Younger children should be taught the more rudimentary environmental concepts from which these more abstract, complex environmental concepts are built. Seeing that high school students are quick to gain full citizenship upon leaving high school, an in-depth knowledge of systems/complexity theory principles and how they apply to sustainability issues will encourage them to make environmentally responsible consumer choices. However, given the limits of responsible consumer choices in mitigating large-scale, systematic environmental issues, such knowledge should also help individuals become more aware of social and economic structures that are environmentally problematic and why they are problematic. And, while it may be difficult to integrate knowledge related to systems/complexity theory principles across k-12 curriculums, what should be made clear is that *citizens need this crucial information in order to adequately understand their complex relationship to the environment as well as to know how to actually mitigate environmental issues*.

Moving Beyond Environmental Knowledge

Teaching the skills associated with environmentally-supportive behaviour is just as important as teaching environmental knowledge. Moreover, pro-environmental attitudes could be easily encouraged through lessons that focus on ESBs. This is because the act of performing ESBs in public places (e.g., schools) is likely to reinforce a pro-environmental moral climate. In order for students to practice specific ESBs, schools should strive to become "living laboratories," where students can learn about and physically practice such behaviours. This might entail large-scale renovations to schools to make them more ecologically sound. The following are a few examples of what schools could do to help students become more environmentally responsible:

- Gardens, greenhouses and composts could be used in conjunction with school lunch programs.
- Ensure adequate waste-related infrastructure to help students practice the "three R's of waste"
- It would be ideal to incorporate a lot of natural sunlight in schools, which could also be used to support a variety of vegetation.
- Rooftop collection units for flushing toilets as well as rain barrels for watering plants and the garden.
- Solar panels to heat water and provide electricity.
- Zero volatile organic compound (VOCs) materials (e.g., paints and finishes) for school buildings.
- Sensored lighting, faucets, and toilettes.
- Heat recovery systems

The Leadership in Energy and Environmental Design (LEED) certification program provides numerous other examples of ways that schools could become healthier and lessen their environmental impacts. The Canadian Green Building Council website states, "Leadership in Energy and Environmental Design (LEED) is a third-party certification program and an internationally accepted benchmark for the design, construction and operation of high performance green buildings."

With adequate backing from governments, schools could even become "net zero," where the amount of energy produced by schools could match their energy demands. Net zero schools would be an excellent and concrete example for students to learn from. With environmentally-supportive teaching staff, buildings and educational content, students are likely to gain the learning opportunities and support they need to form positive environmental attitudes and to learn ESBs.

Once students have been exposed to environmental knowledge and given numerous opportunities to practice ESBs, their knowledge and performances should be evaluated similar to how they are evaluated in other courses to ensure that students leave high school with an adequate set of environmental KSAs. Research that seeks to describe student and pre-service teacher attitudes toward the environment, as well as their level of environmental knowledge and ability to perform ESBs, could serve as a measure for how well environmental education outcomes are working over time. Such research could also be used to determine whether or not public schools should adopt more outcomes that focus on environmental sustainability and *where* to incorporate them. For example, such research might recommend incorporating more environmental outcomes into courses that traditionally do not deal with environmental concepts (e.g., English Language Arts and Mathematics). Currently, different school subjects are very insulated from one another and do not significantly attempt to encourage interdisciplinary learning. "Holistic education has two important meanings. In the first meaning, all human social issues are considered interrelated to each other and environmental conditions. The second meaning considers all arenas of human knowledge as a whole rather than separated into specific disciplines such as history, economics, physics, and biology" (Spring, 2009, p. 138).

The more accurate the research done in this area is, the more effective school policies can become with respect to enhancing individuals' environmental KSAs. WWF's ecological footprint is a standard that already exists that could be used in conjunction with descriptive studies that evaluate preparedness to mitigate environmental issues. Once more reliable measures, such as the "New Ecological Paradigm Scale," (which measures environmental beliefs and attitudes; Cardano,

Welcomer & Scherer, 2003; Dunlap, Van Liere, Mertig & Jones, 2000), have been developed, appropriate standards could be set and performances evaluated. Moreover, it would be ideal to have these measures gauge environmental KSAs for different cultures, genders, ability levels, individual schools, and geographical regions. Without such information, it would be extremely difficult to assess whether or not public education is adequately preparing *all* students to deal with and eventually overcome major environmental issues.

The question is whether we are left in the trap of two unacceptable alternatives. The first is the right-wing view that knowledge is essentially a given and that attempts to change the disciplinary structure of the curriculum are doomed to lead to dumbing down. The second, modernist view is that we have no alternative but to allow the curriculum to respond to market pressures for more choice, and more employment-related options, whatever the consequences for learners.

-Michael Young (2006 [2003], p. 737)

Why can we not opt for smaller schools, for teachers and students working together for three years rather than one, for teachers teaching more than one subject? We are limited in our thinking by too great a deference to what is, and what is today is not very attractive. Our alternative is to change the structure of schools and teaching so that caring can flourish, and the hope is that by doing this we may attain both a higher level of cognitive achievement and a more caring ethical society.

-Nel Noddings (2005 [1993], p. 375)

Chapter Six: Discussion and Conclusion

Without putting forward a particular interpretation of sustainability, the research questions of this thesis would have likely been impossible to investigate. Thus, An important task of this thesis was overcoming the ambiguity surrounding what economic, social and environmental sustainability entail. Considering that ecology is more of a natural science, this objective has been mainly concerned with providing normative accounts for economic and social sustainability. Both accounts of economic and social sustainability appeal to the contemporary liberal theory of Rawls, which holds fairness as the most important goal for society. In other words, it is argued that economic and social systems are sustainable insofar as they are fair. Economically, private property and the promotion of competition generate unfairness by advantaging those with an abundance of capital and those who are more competitive in society (e.g., capitalists). Socially, oppression continues to generate unfairness by disadvantaging traditionally marginalized populations. Questions regarding how to make education in Canada and the US more economically and socially sustainable are ultimately questions of how to challenge capitalism within schools as well as how to ensure greater equity in education over time.

Environmental sustainability is summed up well by the concept of ecological footprint, which looks at the relationship between consumption rates and the capacity of the earth to provide resources and absorb waste. Nations are thus environmentally sustainable only if the demand of citizens on the biosphere is less than the biosphere's productive supply. According to the WWF's Living Planet Report (2012), Canada and the US are not currently environmentally sustainable. When it comes to making education in Canada and the US more environmentally sustainable, more effective approaches to environmental education were explored.

The nature of the thesis is theoretical, yet empirically informed, allowing for the "ideal typification" of ethico-political norms, such as fairness, in economic and social contexts. Furthermore, such ideals/principles act as the basis for an educational framework for sustainability. Ideals/principles of sustainability, such as equal opportunity and self-determination, may never be fully realized, but they are still important because they are standards to which school and other political structures can be measured against. Moreover, the ideals/principles of sustainability represent absolute standards. Part of the problem with current education standards is that they are largely *relative*. That is, education systems in Canada and the US do not receive sufficient criticism because, compared to less privileged nations, they appear unproblematic. This has lead less privileged nations to look to education in Canada and the US for "best practices," which has in turn lead many of them to adopt human capital education policies. Moreover, such policies are adopted despite the fact that their contributions to sustainability are insufficient. Human capital models of education are so problematic in the context of sustainability that less privileged nations should be wary to associate human capital education policies with best practices.

Absolute standards regarding economic and social sustainability help uncover many flaws in education policy in Canada and the US. They also provide less privileged nations with other standards to measure their education systems against. Indeed, part of the reason human capital models of education are as popular as they are (besides the promise of economic growth) is that there are few

credible alternative models to choose from. Progressive education models promoted by UNESCO, for example, are largely associated with human capital education (Spring, 2009), meaning these models are incapable of creating spaces in schools where "students can imagine a different world outside of capitalism's law of value (i.e., social form of labour), where alternatives to capitalism and capitalist institutions can be discussed and debated" (McLaren, 2008, p. 50).

Another task of the thesis was to explore how such an interpretation of sustainability could be integrated into current educational structures in Canada and the US. On one hand, the task involved analyzing how current school structures generate social and economic advantages and disadvantages as well as how they promote competitive and acquisitive attitudes. On the other hand, the task involved analyzing the role education plays in society, including its influence on other institutions and social processes. Hence, the educational framework for sustainability seeks to:

1. Make educational policies and practices in Canada and the US more sustainable, and
2. Contribute to more sustainable circumstances in the broader society.

As mentioned in Chapter One, governments could draw on healthier forms of social tension to facilitate important changes in the broader society. Governments could introduce healthy tensions by implementing an educational framework for sustainability, which would instill intolerance towards social and economic unfairness and teach individuals to be environmentally responsible. Furthermore, by instilling intolerance towards unsustainable behaviour, an educational framework for sustainability is likely to result in pressure being put on other institutions to change towards greater sustainability. Making use of such a framework for education would require education agencies in Canada and the US to reconsider the entire purpose for education. For example, education should not just determine our economic role, as Loy (2008) contends; it should help us be more fully human. An educational framework for sustainability could help citizens become more fully human by ensuring greater sustainability in schools and eventually the broader society.

One of the largest implications of this more progressive goal for education is that instrumental and non-instrumental purposes of education should be more equally valued. For example, investments made in education could be increased beyond levels that produce stagnant economic returns. It is not a coincidence that G20 nations that spend the most on education are also amongst the healthiest and highest income earning nations in the world. This will entail making concerted efforts to minimize the influence corporations have on education systems and the individuals that make them up. Taking action to minimize negative influences originating from home environments (e.g. patriarchal and racist attitudes) is also consistent with an educational framework for sustainability. "[T]he school has the difficult task of facilitating autonomy of children … the task requires that the school have the ethos that is noticeably discontinuous with that of both the home and the mainstream culture" (Brighouse, 2007, pp. 214-215).

If the influence of powerful corporations in public education is left largely unchecked, public education systems and the individuals that make them up are likely to adopt capitalist values over time. There is already evidence of greater corporate influence in education, as standardized assessments and policies centred on lifelong learning are used in schools across Canada and the US. Both lifelong learning policy and standardized assessments encourage more competitive, egoistic attitudes among individuals, schools and also teachers. They assist in the creation of "the possessive individual, a vision of oneself that lies at the ideological heart of corporate economies" (Apple, 1995, p. 138).

Neoliberal governments in Canada and the US place employability as a top priority in education in order to help individuals respond quickly to rapidly changing cultural and occupational environments, and this further strengthens competitive and individualistic attitudes. More than three decades ago, David Hargreaves (1980) was alarmed at how individualistic the education system had become—so much so he asserted the social functions of education had become trivialized. Since the 80s (when social spending was systematically demonized) education has only become more individualistic. In particular, Hargreaves delineates between three different forms of individualism in education, which are

developmental, meritocratic and moral forms of individualism. It is mostly the moral form of individualism in education that is problematic for sustainability. For example, when influenced by moral individualism, the knowledge and skills acquired in education are used to help individuals fulfill their personal, subjective ends instead of being used to improve the whole community or society.

Giving moral individualism a place in education not only trivializes the social function of education, as Hargreaves suggests, it is also problematic when considering the integration of a framework for sustainability in education in Canada and the US. Instead of encouraging more competition and competitive attitudes, an educational framework for sustainability seeks to bring about a better balance between individual freedom and social and environmental responsibility. Given that liberalism prioritizes the individual and that liberal theory underpins education in Canada and the US, liberal theory in education needs to be supplemented with goals for sustainability, which rely heavily on concepts related to responsibility, community and the common good. Increasing students' exposure to these concepts through an educational framework for sustainability would be much different from progressive educational models promoted in UNESCO due to the framework's moral dimension, which, for example, challenges capitalism. Sustainability should be seen as a common good, and the purpose, aims, and policies of education should be based around such a good.

An educational framework for sustainability embodies a particular stance towards oppression. That stance assumes oppression to be unacceptable and seeks to minimize oppression by explicitly teaching anti-oppression content in schools from K-12. Such a framework also teaches individuals to value and care for all others, even those coming from radically different cultures. Teaching individuals to value others would help mitigate negative inter-cultural tensions and reinforce educational content related to non-violence.

Integrating a moral dimension into education would also help correct liberalism's tendency of being too neutral on important issues (e.g. tolerance as a remedy for racism). Moreover, liberal values, such as equal opportunity and self-determination, could stand to be more effective at reducing economic and social

inequalities if they were taught more *explicitly* in schools. However, liberal values are largely *implied* in school practices and processes instead. An implication for instruction is that unsustainable lifestyles should be devalued not only through the hidden curriculum, but also explicitly in classrooms. "Today it is essential that the moral purposes of schooling be restored" (Noddings, 2005 [1993], p. 65). Upon graduation from schools that are centred on goals for sustainability, students should leave with the understanding that *it is unacceptable to be unsustainable*.

Moving Towards a "Hegemony of Sustainability"

The educational framework for sustainability represents a counter-hegemonic movement that seeks to address sustainability issues within schools. And, while the framework is less focused on turning out "revolutionaries," it shares many similar goals to revolutionary critical pedagogy, such as dismantling the hegemony of capitalism and providing spaces to discuss alternatives. The framework ultimately seeks to establish a *norm of sustainability* in schools in Canada and the US wherein unsustainable attitudes and behaviours are not tolerated. A moral climate (i.e., hegemony or norm) geared towards sustainability could not be achieved without the following:

1. Formally recognizing sustainability as a common good.
2. Reducing the role moral individualism plays in education by helping individuals realize their shared fate with other humans and the environment.
3. Minimizing corporate influence on education (which encourages moral individualism as well as a greater economic role for education).
4. Teaching *against* oppression, private property and the blind promotion of competition—all issues endemic to the prevailing hegemony of capitalism.
5. Teaching individuals more *explicitly* about the importance of specific liberal principles, such as equal opportunity and self-determination, including how they help ensure greater social and economic fairness.
6. Making environmental education more meaningful and, thus, more effective.
7. Equipping pre-service teachers with the sustainability-related KSAs they

need to be good role models for students.

Furthermore, the growing influence and intrusion of corporations in education makes it likely that pro-sustainability messages learnt in schools will be undermined (e.g., advertising that promotes acquisitiveness). As such, *the moral aspect of the proposed framework for sustainability is the most important aspect*—the stronger the moral dimension of the framework is, the more effective it will be with respect to achieving goals for sustainability in education and the broader society.

Positive peer pressure can be utilized in a moral climate of sustainability to discourage unsustainable behaviour in schools without the need to rely so heavily on extrinsic reward and punishment schemes. Another goal for the proposed framework is to contribute towards a hegemony of sustainability in the broader society, where positive peer pressure is used to influence individuals and institutions beyond education. Education is not the institution with the greatest influence on society, but it is naïve to assume individuals will not exercise the KSAs they learn in schools in the broader society. For instance, after being exposed to moral education for sustainability in primary and secondary grades, graduates are likely to be dissatisfied upon realizing that all viable political parties in Canada and the US take current property laws as a given, including the left leaning New Democrats in the US and New Democratic Party (NDP) in Canada. The NDP, for example, has even recently voted to remove the word "socialism" from its constitution in order to make their policies more appealing to a greater number of citizens. In this case, an educational framework for sustainability could eventually help bring about greater diversity in progressive political parties in Canada and the US and help increase the popularity of traditionally non-viable progressive parties.

Teacher Training Programs. An educational framework for sustainability places extra importance on educating pre-service teachers about sustainability issues. For instance, pre-service teachers could be explicitly taught about privilege as well as how privilege functions in school settings to benefit some and disadvantage others. Post-secondary lessons that focus on privilege could also be

extended to the context of the broader society to demonstrate that, when distributions of unearned privileges follow lines of race, class, gender and disability, social inequities (in the labour market, for example) become inevitable.

Pre-service teachers who have experienced inequities could be encouraged to share their lived experiences with classmates in order to help solidify more theoretical lessons and discussions focusing on oppression. In order to host such discussions, teachers would have to create and maintain a safe (i.e., caring) classroom environment for students who want to share their experiences. Story telling of this sort could also be used to generate classroom discussions on how systems of oppression continue to operate in nations that value democracy and individual rights. Lessons such as this would also help individuals understand where others are coming from on particular matters. Being able to understand the experience of the others, especially those coming from different cultures, is likely to reinforce content and other messages related to peace and non-violence.

Pre-service teachers must learn to become sensitive to instances of oppression, and they must be trained to appropriately respond to such instances within schools and their communities. In general, pre-service teachers should leave post-secondary institutions with a deep understanding that environmental destruction and economic/social inequities are unacceptable if sustainability is to be taken seriously. This has many implications for integrating outcomes that focus on sustainability into pre-service teacher training programs. Similar to students, pre-service teachers should be held accountable for learning sustainability outcomes, and their educational merits should be withheld until sufficient mastery is achieved. This would help ensure teachers understand their responsibility to contribute to a pro-sustainability moral climate in schools and the broader society.

A study seeking to describe the environmental knowledge of students at Michigan State University (MSU) found there was a “low level of environmental knowledge among MSU students in the College of Education. … These results suggest that increasing the level of environmental knowledge of tomorrow's teachers may be both possible and fruitful. Doing so may be one way to help improve environmental education efforts at the K-12 levels” (Kaplowitz &

Levine, 2005, conclusions section). Without a deep understanding of sustainability issues as well as a personal commitment to behaviours that minimize such issues, students are likely to get inadequate support from their teachers. Moreover, the adoption of pro-environmental attitudes and actions by teachers is one of the easiest ways to contribute to a pro-sustainability moral climate in schools.

Schools could be renovated and built into living laboratories where environmentally-supportive behaviours are easily practiced. School buildings should also be renovated and built with the healthiest, most sustainable materials possible (e.g., Forest Stewardship Council certified wood and paper products). Given adequate funding from governments, schools could even become "net zero," where the amount of energy produced by schools matches their energy demands. Net zero schools would be an excellent and concrete example for teachers and students to learn from. Education agencies in Canada and the US can reference the Leadership in Energy and Environmental Design (LEED) certification program for ideas how to build healthier, more sustainable schools. With environmentally-supportive teaching staff, buildings and educational content, students are likely to gain the opportunities and support they need to form pro-environmental attitudes and learn behaviours that mitigate environmental issues. If the educational framework for sustainability works as it is intended, students should be intrinsically motivated to practice environmentally-supportive behaviours by the time they graduate, and they should be equipped to execute such behaviours independently of assistance from others.

Future Research Worth Considering

Various empirical studies could be conducted repeatedly over time to help determine how to make an educational framework for sustainability more effective. Given the general nature of the proposed framework, future studies will need to ask more particular research questions. These more particular questions should be derived from the general questions asked in this thesis, such as, "How sustainable are schools across Canada and the US," and "How does an educational framework for sustainability contribute to greater sustainability in the

broader society over time?"

An educational framework for sustainability stipulates that a greater number of learning outcomes focusing on sustainability must be incorporated into school curriculums. As a result, future studies should look to describe the performance of students on such outcomes. Descriptive studies such as this would best be conducted with sample populations of grade 12 students near the end of the school year (e.g., just before graduation) in order to determine students' cumulative knowledge, skills and attitudes regarding sustainability. Determining grade 12 students' knowledge, skills and attitudes associated with sustainability close to graduation would help clarify whether or not education systems in Canada and the US are adequately preparing students to mitigate sustainability issues. It has already been pointed out that there have not been any studies conducted in the last decade in Canada and the US looking to describe the environmental knowledge of grade 12 students, and this has kept education agencies from actually knowing what the environmental knowledge of their students is as well as how it may have changed over time.

Poor performances on sustainability outcomes could be used to provide evidence that school curriculums and policies are not adequately preparing individuals to mitigate sustainability issues. Poor performances on environmental knowledge items by students over the last few decades already suggest students are not being adequately prepared to address particular sustainability issues. Furthermore, such evidence could be used to argue for the integration of sustainability-focused learning outcomes into current educational frameworks. Studies that look to describe the performance of students on sustainability outcomes should also be conducted over time to determine if performances are changing and how they are changing. For example, longitudinal studies could be conducted to describe the performance of individuals on sustainability outcomes during primary and secondary grades, post-secondary education, and post-graduation. Descriptive studies of this sort should also be repeated for pre-service teachers as well as citizens not enrolled in educational programs in order to learn more about their knowledge, skills and attitudes pertaining to sustainability

matters, including sustainability issues.

Going into the future, different kinds of studies could be conducted for each pillar of sustainability. With respect to economic sustainability, studies could look to determine the attitudes of grade 12 students towards competition and current private property laws, including whether or not their attitudes change after exposure to a greater number of outcomes focusing on sustainability. Developing a reliable measure of corporate influence in education would also be helpful, for example, by studying the number of agreements made between particular schools and corporations, and by studying how much schools make use of standardized testing and league table results. Another question beyond the scope of research in this thesis (regarding economic sustainability) is, "How do different school-choice policies affect class size?"

With respect to social sustainability, government agencies could develop, refine, and make better use of measures of equity in school and work environments. For example, measures of social mobility and intergenerational transmission of poverty could be refined for greater reliability, and they could also be referenced more often by government agencies in order to ensure sounder educational policies. If governments used measures of equity similar to how they make use of league table results, they would be less able to ignore persistent educational issues related to sustainability. For example, schools could be ranked by the size of the achievement gap between aboriginal and non-aboriginal students. Future studies could also look to describe the attitudes of non-aboriginal Canadians and Americans towards aboriginals, and it would be helpful (in the US especially) to document how the popularity of Afro-centric schools changes over time.

With respect to environmental sustainability, governments could seek to better understand ecological footprint calculations and the methods used to make such calculations. Moreover, it would be ideal for the governments of Canada and the US to take actions to help improve the reliability of ecological footprint data in order to improve the validity of statements and claims made on behalf of environmental sustainability. Governments could accomplish this by conducting

their own ecological footprint studies. Governments must also gather more information with respect to the level of environmental knowledge of their citizens, including their ability to perform environmentally-supportive behaviours. Descriptive studies that seek to describe the environmental KSAs of individuals (whether students or non-students) should also be repeated over time to learn whether or not reform to curriculums and school environments toward greater sustainability are fulfilling their intended results.

Conclusion: A Moral Climate for Sustainability is a Caring Climate

"Care" is a suitable umbrella concept for an educational framework for sustainability for a number of reasons. In general, and on one hand, care embodies the essence of what is lacking from Canadian and US society today—care for others (including indifference to widespread unfairness) and care for the environment. On the other hand, Canadian and US societies must teach individuals to care more for others and the environment if they hope to one day achieve greater sustainability. In particular, care is also a suitable umbrella concept because it emphasizes relationality (as opposed to individualism), it is morally active (as opposed to being morally neutral), and care also has great potential for strengthening specific liberal principles of justice (e.g., equal opportunity). Consequently, another major goal for an educational framework for sustainability must be to create a more caring moral climate in schools.

Many of the ways schools can organize themselves to foster more caring and sustainable school environments have been outline above, as care is central to sustainability and thus implicit to an educational framework for sustainability. Moreover, many other suggestions pertaining to how to best create a caring climate in schools have been suggested by moral theorist, Nel Noddings (2005 [1993], 1988). Her book *The Challenge to Care in Schools: An Alternative Approach to Education* (2005 [1993]), for example, considers how to practically integrate care into schools in the US. Moreover, many of the suggestions Noddings makes in the book are easily transferrable to education systems in Canada. A section from the book is quoted at length below to show what a more caring/sustainable orientation to education might look like at the level of the

individual school.

> Suppose for illustrative purposes, that we consider an eight-period day. I have suggested that it be divided equally between the standard subjects and themes of care. One period designated to the latter would be lunch with conventional groupings. The rest of the time would be devoted to themes of care, and a team of teachers would be available to supervise various projects and discussions. Topics might include health management, sex, child rearing, household technology, driver education and safety, nutrition, drugs and substance abuse, environmental issues, and a host of others that arise in current life. The precise topics discussed in any year would be chosen by students and teachers together. Because students would be enrolled in a class like this for six years (grades 7-12), there would be time to cover a lot of topics. … Instead of analyzing canonical literature and studying chronological history, students might choose from a reasonable variety of important topics those which they would study with care. Possible topics would include childhood and aging, spirituality, moral life and obligation, oppression, and war and peace. Again, teachers would take responsibility for providing some whole-class discussion of essential topics, individual and group coaching on specific skills, and an appropriate sequence of topics for each student. The other half of the day would be spent on more traditional subjects, augmented by special subjects necessitated by our attention to multiple intelligences. These would consist of disciplinary knowledge modified by considerations of care. In this segment of the curriculum, we would rely on revision rather than revolution, and in fact such revision is well under way—much of it inspired by feminist, ethnic, and other critical studies. Eventually, after many years of successful practice, the disciplines might give way entirely to a new mode of curricular organization (p. 71).

For many people, the organizational scheme described above represents a radical departure from current educational policies and practices. Such attempts to make education significantly more progressive and sustainable are often met by criticisms that suggest such attempts are “doomed to lead to dumbing down” (Young, 2006 [2003], p. 737). However, if an educational framework for sustainability works as it is intended, academic achievements (as well as those achievements related to outcomes focusing on sustainability) should be even

higher than they are under a standard, liberal arts curriculum. Academic achievement would be higher in an educational framework for sustainability because content learned in education would be more balanced between academic and non-academic knowledge and skills, including much greater emphasis on personal/moral issues that individuals must deal with on a daily basis. An education that is properly balanced in this respect is likely to be more meaningful and less abstract.

Academic achievement under an educational framework for sustainability would also be higher due to the fact that sustainability is an interdisciplinary concept. Interdisciplinary concepts are more consistent with the reality of things beyond school classrooms (i.e., real world experiences are multifaceted and complex), and so concepts focusing on sustainability are also likely to be more meaningful to students. Moreover, meaningful content learned in schools is likely to reinforce individuals' innate predisposition towards learning. This is in contrast to the traditional content learned in most academic courses that leads many students to ask, "why do we have to learn this?" The siloed organizational structure of most traditional, academic disciplines has resulted in content becoming overly abstract and discontinuous with concepts in other disciplines, which in many cases are virtually inseparable from one another. This is what Noddings brings attention to when she says, "Educational research … has made the error of supposing that method can be substituted for individuals, and this attempt may well have increased the alienation of students" (Noddings, 2005, [1993], p. 8).

As Nel Noddings writes,

> Instead of promoting schooling as the road to higher economic status, we should promote it as the path to wisdom. Instead of painting a hierarchical picture of success in terms of money and power, we should discuss success in terms of loving relations, of growth in individual capacities, of lasting pleasure in various worthy occupations, of satisfying connections with living things and the earth itself. In the past few decades we have prostituted schooling, and it shows in everything from our overemphasis on achievement scores to our concentration on credentialing for 'good' jobs (2005 [1993], pp. 137-138).

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Appendix

Table 2: Percentage of Learning Outcomes in the Alberta High School Curriculum (2011) Focusing on Environmental Sustainability

Science (Alberta Education Curriculum, 2011)	**Percentage of learning outcomes containing the word "sustainab*," "environment*," "clima*," "emission*," or "greenhouse gas" (in the context of *environmental* sustainability), or that focus on biodiversity or biological systems**		**Social Studies** (Alberta Education Curriculum, 2011)	**Percentage of learning outcomes containing the word "sustainab*," "environment*," "clima*," "emission*," or "greenhouse gas" (in the context of environmental sustainability), or that focus on biodiversity or biological systems**
10	**21%**		10-1	**14%**
14	**26%**		10-2	**14%**
24	**10%**		20-1	**3%**
K&E 10-4	**10%**		20-2	**3%**
K&E 20-4	**8%**		30-1	**10%**
20	**21%**		30-2	**10%**
30	**18%**		K&E 10-4	**14%**
Biology 20	**Not included**		K&E 20-4	**4%**
Biology 30	**Not included**			
Chemistry 20	**9%**			
Chemistry 30	**9%**			
Physics 20	**6%**			
Physics 30	**5%**			

Figure 2: