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Teaching Restless Bodies: Teachers' Negotiations of ADHD in Sarnia, Ontario

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A thesis submitted in partial fulfillment of the requirements for the Master of Arts degree in Anthropology

TEACHING RESTLESS BODIES: TEACHERS' NEGOTIATIONS OF ADHD IN SARNIA, ONTARIO

(Monograph)

by

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Graduate Program in Anthropology

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Abstract

Attention-Deficit/Hyperactivity Disorder (ADHD) has come to be a way of being a person. In practical activities, concepts from various scientific paradigms come to be embodied. The categorical, yet historically transient, 'reality' of ADHD emerges from people's use of the classification to organize experiences of the behaviours, emotions and drugs associated with the category. This thesis explores how a group of teachers and principals from Sarnia, Ontario make sense of their role in the medicalization of childhood behaviours in relation to the classification ADHD. Previous studies have examined the perspectives of patients, parents, and physicians regarding ADHD, but despite depictions of teachers' role in identifying ADHD in their students, there is a relative lack of studies of teachers' practices and their perceptions of their role. ADHD is produced as people appeal to the classification in the practice of everyday life; this thesis explores how this occurs among schoolteachers in Sarnia.

Keywords

Attention Deficit Hyperactivity Disorder, ADHD, Teachers, Education, Embodiment, Biopolitics, Normativity.

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Contents

Preface

Attention deficit hyperactivity disorder (ADHD) seems to have a range of meanings for different people. ADHD has been studied, in quite diverse ways, by medical doctors, psychologists and anthropologists. The literatures about this classification are an exemplar of the epistemological problems involved in the nature/nurture or social/biological debates that are significant issues both within and between paradigms**.** The meaning of ADHD is contingent upon the paradigm or worldview of the scholar. Anthropology, pharmacology, and philosophy of science each offer unique ways of thinking about ADHD and although complete reconciliation may not be possible, a dialogue contributes a more flexible framework. Working towards a productive dialogue across paradigms became one of my principal goals in this project.

In the later part of my undergraduate degree at the University of Windsor I became interested in studying ADHD. While in Windsor, I double majored in cultural anthropology and psychology—which despite having common empirical roots (and common epistemological problems) are disciplines which conceptualize mental illnesses in rather different ways. Having recently been introduced to Michel Foucault's post-structuralism (reluctantly at first, and without any notion of how much these ideas would come to condition my thinking) I became uncomfortable with elements of psychological understandings of ADHD. Specifically, I had several psychology professors who were quick to geneticize mental illnesses while often using ADHD as a case in point.

In my anthropology classes, arguments about mental illness tended to occur on the other side of the nature/culture dichotomy. Ideas about governance, bio-politics, critical epidemiology, and culture-bound syndromes historicized and reduced some of the genetic determinism present

in psychological arguments. However, I felt that the physical, biological body seemed to get lost along the way. Human beings are from the beginning their bodies: without fleshed bodies there exists no discourse, no culture and no power. Discourse and culture and power change bodies, but the fleshed body is the first dimension of human being upon which experience is built.

My current work about ADHD is driven by my interest in integrating biological processes with sociological concerns in order to theorize how mental illness is always bio-cultural—never 70% *x* and 30% *y*—but always produced simultaneously from bio-social processes. In modern *Homo sapiens* biology and culture are so fundamentally entangled that to try to disaggregate them is not only futile, but unproductive. Throughout this thesis I am careful to represent the experience of ADHD as synthetically as possible. While at points, as a social anthropologist, I spend a good deal of time discussing experience and culture and history, I am always thinking about these concepts in relation to physical bodies.

Attention deficit/hyperactivity disorder (ADHD) manifests as a range of behaviours, and the category is widely accepted and relatively uncontested in both popular and scientific discourse. In everyday exchanges, for example, it is not uncommon for minor inattention (or boredom) to be framed in terms of an attentive disorder. This constellation encompasses behaviours which are all in many ways and at many times *normal.* Most children perform these behaviours to varying degrees and ADHD thus refers to 'abnormal' rates of certain otherwise *normal* behaviours. This variability makes the conditions under which the behaviours are diagnosed and treated important to consider. Beliefs about ADHD do not exist in a vacuum: these notions exist within a historical context which forms a matrix of ideas about ADHD. ADHD is an increasingly 'common sense' way to conceptualize, and subsequently manage, behaviour in Ontario classrooms.

This study is organized around the question of how teachers made sense of their role in the complex network of actors, institutions and processes which go into the making up of ADHD. Teachers and other non-medical school personnel have been represented as among the primary identifiers of ADHD in Canadian children (Malacrida 2004). While there is a lot of discussion about the role of various actors in contemporary medicalization processes, the voices of teachers have been absent in these discussions. This absence leads to a significant gap in our understanding of how, and for what reasons, certain labels are being applied to young people in our society. Working towards an understanding of how teachers conceptualize their role in the complex, multi-actor process of diagnosing ADHD was one of the principal ethnographic goals of this project. The research showed that the role teachers play in the diagnosis and labeling of children is highly complex. Teachers' practices cannot be productively represented as 'teachers always label students' or 'teachers never label students'.

The ethnographic data used in this analysis was gathered in Sarnia, Ontario during July and August 2014. Sarnia is a small Canadian border city with a population of about 73,000 people. Comprised of predominantly average income working families, Sarnia's primary economic activity is in chemical and petroleum refineries, in what is known as the 'Chemical Valley.' My interviews were conducted in an open-ended and unstructured manner in order to allow my analysis to build, as much as possible, from what teachers themselves highlighted in their experiences of ADHD. Borrowing from Dorothy Smith's institutional ethnography, my research with teachers works out from "the actualities of the lives of some of those involved in the institutional process and [focuses] on how those actualities were embedded in social relations, both those of ruling and those of the economy" (2006: 31).

During my research in the summer of 2014, I talked to 15 teachers and school administrators. I interviewed nine elementary school teachers, four high school teachers and two elementary school principals. The interviews ranged from 40 to 90 minutes in length and went quite smoothly. I digitally recorded roughly half the interviews because some teachers were uncomfortable being taped or felt that they would give me more detailed answers if they were not worried about being recorded. When representing teachers' speech in the body of the thesis I cleaned up the conversation while I was transcribing by omitting pauses, extra sounds or repeated words to make it more readable. I do not do any micro-political linguistic style analysis so this level of detail was the most useful for representing my data as text. My choice to use unstructured interviews as my key method was both an explicit and conscious theoretical position, which opened up my data in ways that would not have been possible in more structured kinds of data collection. However, my results are from a small group of people and do not comprise a representative sample. Instead, they offer insight into how a group of strategically-situated social actors are understanding and trying to manage certain kinds of behavioural problems in their classrooms, within the context of some of the possibilities and constraints they face in their everyday work lives.

As an extension of the nature of knowledges about ADHD, various kinds of people can be 'experts' about this disorder. This range includes medical practitioners, psychologists, teachers, parents, friends and patients (practically anyone). The expertise(s) of these actors can originate from a variety of sources. This includes formalized or 'privileged' knowledges like academic and medical literatures or curriculum or school board guidelines. Expertise about ADHD is also informed by other, more everyday knowledges. For example, understandings can be informed by popular magazines, social media discussions, portrayals in artistic media and

perhaps most significantly personal experience and relationships with people somehow affected by ADHD.

The Canadian sociologist Juanne Clarke's (2011) exploration of the depiction of ADHD in North American magazines between 1988 and 2008 shows how complicated these knowledges can be. She notes that there appears to be a general uncertainty in the media about what, exactly, ADHD means. Popular knowledges can be uncertain, fractured and contested. There is significant polarization and ambivalence about the diagnosis in media representations. At one extreme the labeling of boys' behaviour is seen as a type of sexism and abuse against little boys. In the material used for her discourse analysis, Clarke found that ADHD's existence as a diagnostic category is contested, and as such it is not always talked about as a mental illness. Furthermore, poor classroom organization/structure are seen as an alternative cause (an instance, I would argue, of teacher blaming). Some magazine stories presented ADHD as dangerous if untreated, assuming that unmedicated boys will become violent (Clarke 2011).

Likewise, Clarke notes that when magazines discuss ADHD etiology (or causes) they generally focus on biology/genetics:

> the reality of ADD and ADHD is sometimes emphasized by referencing legitimating experts and related organizations along with valuing the more objective world of biology and genetics. It must be real, these articles seem to say, if hard sciences are studying it. Here it is said to have 'a powerful genetic component' (2011: 628).

As in other areas of science journalism, there is a rush towards reductionist genetic explanations (Lancaster 2006) and potentially inaccurate references to scientific studies. Biological explanations are consistently appealed to, despite a considerable inconsistency in the medical literature with regards to the etiology of ADHD.

In bringing up the variety of epistemic systems that inform ADHD my purpose is not to argue that certain privileged knowledges are superior or inferior to other kinds of knowledge about ADHD. Rather, my point is that there are a myriad of ways of thinking about ADHD and that almost anyone can be an 'expert' with varying degrees of credibility. There is likely something about the everyday, and until recently largely contested, nature of ADHD that constitutes a range of experts about aspects of this disorder (including whether it is a disorder or not). A prominent element of both everyday and academic ADHD discourse is the negative representation of classroom teachers in relation to this constellation of behaviours. There is extensive commentary about the role teachers play in medicalising children by pushing or forcing ADHD treatment upon children. It is hard to bring up ADHD without the assumed role of teachers informing aspects of the conversation. My thesis probes the question of what, exactly *is* the role of teachers in ADHD identification in Ontario classrooms?

This thesis is divided into four chapters, each of which builds on my interest in embodiment and how teachers made sense of their role in the making up of ADHD. Chapter one looks at the production of ADHD as a salient thing. Drawing upon social anthropology, phenomenology and philosophy of science, the first chapter presents an overview of how phenomena are made real as they are appealed to in the practice of everyday life. My ethnographic data is discussed primarily in chapters two and three. Chapter two concerns how, from within their position in the school, teachers understand the medical and biological side of ADHD. There I present a discussion of how reconfigurations in expectations about mental illness have changed the way ADHD is stigmatized. Chapter three builds on these ideas by evaluating how teachers thought about the effects of behavioural interventions, the home environment, and parenting style on the expression of ADHD. Both of these chapters, in rather different ways, look

at how teachers use different kinds of discourses and categories to displace the responsibility for behaviours away from their students. The fourth chapter concludes my thesis by situating teachers' concerns with curriculum changes and standardized testing within a biopolitical analysis of numbers, governance and the changing contours of normativity.

Chapter One: The Production of ADHD as a Salient Thing

Making Sense of ADHD Bodies

The primary ethnographic goal of this project is to further our collective understanding of how some teachers made sense of their role in the medicalization of childhood behaviour. I am not claiming to speak for all teachers in all contexts, but rather I hope to outline how my participants made sense of their role in relation to ADHD. Specifically, this work was conducted with a mix of high school and primary school teachers in Sarnia, Ontario. Prior to a more detailed discussion of my participants' experiences of ADHD (chapters two and three) this first chapter will work towards an anthropological framework for ADHD in order to orient the reader theoretically.

This chapter is organized around the following question: how is ADHD produced as a thing? The meaning of this question and the subsequent answers are contingent upon the paradigm or worldview of the scholar (c.f., Kuhn 2012[1962]). In order to create as synthetic an analysis of ADHD as possible this chapter will draw upon ideas from phenomenological anthropology, political economy, pharmacology, psychology and philosophy of science. Each of these paradigms offers unique ways of thinking about the nature of ADHD and although complete reconciliation may not be possible across paradigms (Roseberry 1989), a dialogue contributes a more flexible framework for this analysis. In the spirit of synthesis, the remainder of this chapter is broken down into several sections. The first two sections are largely reviews of social science and biomedical or pharmacological ADHD paradigms. This is followed by a discussion of embodiment and phenomenological anthropological perspectives which can be applied as a kind of flexible bridge between the above literatures. And lastly, this chapter moves on to a discussion of the 'normal' body and some practical, bodily implications of ADHD.

ADHD has a long history. Mayes and Rafalovich (2007) point out that the cluster of symptoms that constitute ADHD are not exclusively modern phenomena, but rather that hyperactive, restless and inattentive children have been conceptualized medically since as early as 1902. Approximately 20 different diagnostic labels have been used to classify these children, however, contemporary ADHD has "essentially the same behavioural symptoms as those first identified in 1902" (Mayes and Rafalovich 2007: 436).

Attention and inattention are not separate objects: rather, they represent different ends of a continuum. Different levels of attention can be defined or experienced as normal or abnormal at different historical periods, as well as in different contemporary contexts. For example, in tasks where the ability to multi-task or manage lots of different kinds of information, some of the behaviours involved with ADHD could be seen as actually quite helpful. Early medicalization of ADHD began at the beginning of the 20th century, emerging largely from the work of the aptly named George Frederick Still. These processes involved the replacement of a moral model of deviance/morality with a medical model. Mayes and Rafalovich comment, “Still's work contributed to a new track of medical discourse, which argued that a lack of morality was not necessarily an individual shortcoming but a matter of biology” (2007: 438). In this instance, Still continued to associate behaviours, which are now experienced as ADHD, in moralistic terms, but began to interpret those behaviours in biological terms, as opposed to seeing them as individual choices. Today, a century later, there has been a more complete superimposition of physiological explanations onto behaviours formerly defined in moralistic terms. ADHD is not often directly associated with morality today, however immorality never completely disappears from discourse—but it has become displaced.

Other early researchers, such as Tredgold (writing in 1917), furthered this physiological hypothesis with the idea of minimal brain damage (with unknown etiologies): in his view "immorality was essentially a form of mental deficiency caused by some organic abnormality on the higher levels of the brain" (in Mayes and Rafalovich 2007: 439). These defects were thought to be associated with such factors as: lack of oxygen during birth, teratogenic factors, and early illness such as flu/encephalitis (Mayes and Rafalovich 2007). These explanations have been carried forward in some literature which maintains genetic models—which do not, independent of social processes, sufficiently explain whether or not (or in which ways) a person is normal.

Social Science Paradigms

The cultural-theoretical ADHD literature emerged along with the increasing attention to its clinical predecessor, hyperkinesis, in the 1970s. Conrad (1976) discusses how 'different' childhood behaviours were increasingly being defined as medical problems. Hyperkinesis was very similar to current ADHD, but was less broad and did not include inattention. Thinking of this constellation of behaviours in terms of formal diagnostic categories has a variety of consequences. Importantly, there was a significant amount of money to be made here. The owner of Ritalin, CIBA, made $13 million from Ritalin in 1971 (15% of their gross profit) (Conrad 1976). Some groups, such as the Association for Children with Learning Disabilities (ACLD), actively lobbied for hyperkinesis as a formal diagnostic label. ACLD promoted conferences, sponsored legislation and provided social support. This association also promoted a biomedical model of hyperactivity. As a function of these and other factors the medicalization of hyperactivity was widely accepted by the early 1970s (Conrad 1976).

The DSM-V (2013), the current American Psychological Association's diagnostic manual, now includes adult ADHD. When ADHD is diagnosed in adults it tends to be self-

diagnosed, and thus diagnosis-seeking behaviour has contributed to the emergence of adult ADHD (Conrad and Potter 2000). Additionally, as people with ADHD grow up and become adults the rates of adult ADHD will also increase. Many of the adults who present with ADHD are successful and well adjusted in life. For adults, the main issue seems to be underperformance, not bad behaviour. The label of ADHD puts an individual into the category of disabled and entitles them to certain rights and accommodations (Conrad and Potter 2000). Likewise, according to Michael Oldani's ethnographic work in Manitoba, ADHD remains:

> paradigmatic in terms of how easily multiple family members can end up being prescribed stimulants. I documented cases of fathers asking for prescriptions after they realized their ADHD-diagnosed sons were doing better on stimulants. These fathers later reported to their doctors that they were 'getting along better' with their children because of the medication (2009: 133).

In this instance medicalization is a historical process of collective action. Here, people such as educators, advocacy groups, social movements, health organizations, pharmaceutical companies, academics and clinicians are all involved in the production of ADHD, simply by bringing it into everyday discourse and practical activity.

Hart, Grand and Riley (2006) draw attention to the power dynamics of ADHD. They argue that ADHD can be used to single out, diagnose and treat disobedience. The lowering of the age of entry into elementary schools has potentially resulted in under-socialized children. It is possible that because girls develop social skills at a younger age than boys, boys are seen as uncivilized and hyperactive. In this environment, Ritalin is used as a substitute for internalized standards of self-discipline (Hart et al. 2006).

Indeed, ADHD is a gendered classification: it is predominantly a disorder of males, and around 80% of identified cases are males. Likewise, hyperkinesis was six times as prevalent in boys (Conrad 1976). This gendering is maintained in classrooms today, and the majority of

comments about ADHD in my study centered on boys. Commenting on Canadian classrooms, Ohan et al. note that:

> Boys are more likely to have ADHD than girls and boys with ADHD are more likely than girls with ADHD to receive assessment or diagnostic services and treatment services. For example, about 2-2.5 boys have ADHD for every 1 girl, but approximately 6 boys present to clinical services for ADHD for every 1 girl (2011: 84).

This gendering produces certain possibilities for boys, but the consequences for girls (who are generally *not* diagnosed) are less clear. Likely, this contributes to the structural inequality of boys and girls in classrooms by positioning boys as 'at risk'. This raises interesting questions about gender categories and expectations. For example, the medical treatment of the symptoms of ADHD points to an increasing intolerance of what would have been described 20 years ago as "boys being boys" (Hart et al., 2006).

Singh (2003) notes that ADHD studies that look at parent-child relations predominantly discuss mothers and sons, and he proposes that the lack of fathers' perspectives reflects a significant gender bias in the ADHD literature. Of the fathers interviewed in Singh's study, only 18% thought that their sons' behaviours were medical issues. Fathers recognized that their sons were behaving badly and that they were struggling in school. However, rather than defining the behaviours as symptoms of a medical disorder, they tended to define them as 'boys will be boys.' Furthermore, a significant number of the fathers in this study sympathized with the way their sons behaved because they identified with the boys through their own childhood experience (Singh 2003). The 'boys will be boys' rationale that fathers accepted was at odds with their wives' perspectives, as most of the latter accepted and advocated for the biomedical ADHD definition of their sons' behaviour (Singh 2003). However, despite their disagreements, fathers did not try to prevent medical intervention. This was often rationalized as an effort to preserve

marital harmony and respect the decisions of their wives. When fathers disagreed with the decision to medicate children, it was often a source of distress for mothers and marital problems (Singh 2003). Hence, Singh (2003) defined men as either reluctant believers or tolerant non-believers. Medical knowledges about ADHD tended to contradict fathers' understandings of themselves and the behaviour of their sons in Singh's study.

Biomedical/Pharmacological Paradigms

While aspects of this biomedical section are quite technical for social scientists, this information is included in order to demonstrate the quality and scope of this literature alongside that of the complementary social science. At the same time, readers coming from a biomedical background may be dissatisfied with the *lack* of technical depth in my presentation of this literature. Further, data from this literature, in a somewhat distilled form, can be (and is) convincingly invoked to inform educational practice. At the end of my research I attended a workshop for teachers about ADHD treatment with one of my participants. The kind of data presented here was presented to teachers in highly technical, biological terms. So while this section represents a kind of compromise, it is productive to include this information here.

Upwards of 5% of children in North America are currently prescribed Ritalin or other stimulants for ADHD. Medication is almost always the first choice or 'gold standard' for treatment: "ADHD is the most widely diagnosed clinical condition of childhood and its treatment is primarily pharmacological" (Mayes and Rafalovich 2007). One of the most important, as well as controversial, implications of the ADHD diagnostic category has been the subsequent treatment of children with stimulant drugs. The effectiveness of stimulants in treating hyperactivity was discovered by accident, about three decades following the earliest discussion of what is now ADHD. Initially, Mayes and Rafalovich (2007) note that both the lack of a

market, as well as the controversial nature of medicating children with amphetamines, resulted in little early research into their therapeutic application to hyperkinesis.

The political and public controversies surrounding the use and development of stimulant drugs emerged quickly following the introduction of Ritalin as a therapeutic agent. Social theorists in the 1970s, such as Conrad (1976), were highly critical of the explosion of Ritalin use. The significant public outcry and lobbying against recklessly medicating children, as well as fears of addiction, led Ritalin and related stimulants to be classified as Schedule II controlled substances (Mayes and Rafalovich 2007). Additionally, when 'normal' and ADHD children are given stimulant medication, both groups experience similar improvements in performance. A common question among the teachers in my study was, given that many children can benefit from taking stimulants, just how hyperactive must a child be to qualify for medication?

Amphetamine-class drugs, such as Ritalin, are indirect agonists of catecholaminergic, or the dopamine neurotransmitter systems in the brain. Amphetamines both block catecholamine reuptake and stimulate their release in nerve terminals (Meyer and Quenzer 2005: 294). More specifically, dopamine (DA) function is affected by amphetamines in two ways: by the release of DA from vesicles and by an increase in the DA in the synaptic cleft through the blockade of DAT, a protein which removes dopamine from synapses (Krause et al. 2003). Thus, the basic function of these drugs in the brain is to increase the amount of or prolong the effects of dopamine. There are a variety of therapeutic uses for amphetamine/stimulant drugs with the most often-cited usage being the treatment of ADHD.

Low to moderate doses of amphetamines produce significant calming effects in over half of the children affected by ADHD symptoms: dextroamphetamine, methylphenidate, and pemoline are the drugs of choice (Meyer and Quenzer 2005). Methylphenidate (Ritalin) is the

most commonly used ADHD medication. It is available in several different forms such as: the short-acting Ritalin, the longer-acting Ritalin SR and the ultra-long acting Ritalin LA and Concerta. The longer acting drugs were preferred by teachers in my study because they only need to be taken once a day in the morning as opposed to several times throughout the day while the child is at school. These drugs were also noted to moderate behaviour more consistently.

Physiologically, ADHD is likely related to dysfunction in the dopaminergic system of the brain, with increased DAT density in the striatum in adults with ADHD (Krause et al. 2003). Abnormalities in the dopamine system in brain areas such as the cerebellum, prefrontal cortex and striatum are likely central in the physiological etiology of ADHD—as well as other disorders, including depression, schizophrenia and Tourette's syndrome (Krause et al. 2003: 606). Neuroimaging studies are consistent with this hypothesis (Krause et al. 2003). Krause et al. (2003) estimated that individuals with a specific allele on the DAT1 gene have a markedly increased risk for developing ADHD and this DAT1 allele could increase risk by 20-40%. Krause et al. (2003) demonstrate that DAT is increased in ADHD patients, but that this increased density is not directly associated with specific symptomology. Furthermore, at this time it is not clear how the various forms of DAT1 alleles influence DAT density (Krause et al. 2003).

Environmental risk factors are a significant issue for public health and treatment because they are likely more readily mediated by preventative factors than genetic risk factors (Calarge et al. 2010). Calarge et al. (2010) argue that iron deficiency, the most common single nutrient condition in the world, is a potential environmental risk factor for inattention and externalizing disorders. Up to 7% of young children and 16% of female adolescents are iron deficient (Calarge et al. 2010). Both preclinical animal research and human research suggests that iron deficiency and associated impairment in DA signaling are linked to ADHD (Calarge et al. 2010). Iron is a

cofactor for many enzymes and is involved in structural and transport proteins in the brain. More specifically iron is: "a cofactor for tyrosine hydroxylase, the rate-limiting enzyme for catecholamine synthesis" (Calarge et al. 2010: 496). Furthermore, the basal ganglia and other brain areas associated with ADHD are rich in iron. And finally, patients with ADHD often show an inverse relationship between serum ferritin and the severity of their ADHD symptoms and sleep issues. There exists a correlation between serum ferritin levels and the patients' response to stimulants to the effect that those with lower iron require more amphetamine to achieve a therapeutic response (Calarge et al. 2010: 499). Food and nutrition is often referred to as a risk factor in the development of ADHD, yet finding a direct (biological) causal link has proven elusive. While the failure to have certain nutrients in the diet, such as iron, can contribute to physiological/mental health problems it is likely that factors outside of the individual body are also operative here.

The risks associated with the therapeutic use of psychostimulant class drugs include: abuse potential, physiological/psychological side effects and illicit performance-enhancing effects. There exists a significant ambiguity in the literature as to the level of risk in actual practice with these drugs. As medical practitioners and teachers are well aware, these drugs are fairly safe and effective, although they are not without risks. As such, other non-pharmacological and less invasive methods of treatment should always be considered. The use of stimulants in children requires both discretion and caution.

For instance, there is an association between ADHD, Ritalin and Tics/Tic disorders. Pidsosny and Virani (2006) note that about half of the children with Tourette's syndrome also have ADHD. Studies have shown that about 1% of children with no history of tics can develop tics while on Ritalin, and that in children with tic disorders 13% have their tics worsened by

Ritalin therapy (Pidsosny and Virani 2006). Furthermore, when medication is suspended, many of those children who developed tics have a reduction or elimination of tics. However, Pidsosny and Virani (2006) note that there has not yet been a definitive causal relationship between tics and stimulant use.

According to Coetzee et al. (2002) the most commonly used stimulant medication, methylphenidate, also has the highest potential for illicit use and abuse. Stimulants such as Ritalin inhibit the DA transporter, and the inhibition of this transporter mimics the reinforcing characteristics of cocaine (Coetzee et al. 2002: 166). Intravenous injection of methylphenidate is the most commonly discussed method of abuse. Intravenous injection of Ritalin has serious complications and elicits a subjective high similar to that of intravenous cocaine (Coetzee et al. 2002). Intranasal abuse also occurs and has similar complications.

However, it is important to note that although there is significant and rising abuse of methylphenidate, its abuse by ADHD patients themselves is relatively uncommon (Coetzee et al. 2002). When it is administered in the prescribed manner (orally), first pass metabolism by the liver and wide distribution results in slow onset and no subjective 'high'. The kinetic profile of the drug is changed with intravenous and intranasal administration because they eliminate the first pass metabolism in the liver; as a result, the high occurs in seconds (Coetzee et al. 2002). While acknowledging that these drugs are safe when used according to guidelines, Coetzee et al. (2002) note that physicians need to be aware of repeated requests for refills, excuses and manipulation that points to abuse by the patient or selling of their prescriptions.

Likewise, Svetlov et al. (2007) argue that there is a low abuse potential for Ritalin due to several factors. Ritalin has a different biochemical mechanism than cocaine, which makes it less desirable as a drug of abuse. For Ritalin, the high dissipates very rapidly, despite the presence of

drug still bound in the brain (Svetlov et al. 2007: 3). Despite the similarity in effects the rewarding and reinforcing properties of Ritalin are much lower than cocaine and methamphetamine (Svetlov et al. 2007). The first pass metabolism eliminates the subjective high when Ritalin is taken orally.

Because Ritalin helps improve concentration and learning performance regardless of the presence of ADHD or another disorder, Ritalin is often abused as a cognitive performance enhancer by post-secondary students taking exams, tests and writing papers. Methylphenidate is the drug of choice for studying, last minute cramming and avoiding distractions in college examination environments. As such, Svetlov et al. (2007) argue that Ritalin is most likely to be abused by poorly-performing, wealthy, white and predominantly male college students. However, even in these students the addiction potential of the drug remains quite low.

Phenomenological Anthropology and ADHD Bodies

When the social science and pharmacological perspectives are considered separately it is relatively easy to locate literature from each camp which is at odds with the work of the other. Borrowing from Roseberry's (1989: 32) comments about binary thinking in anthropological theory, "grand synthesis is neither promised nor possible. Yet mediation is possible if we reject the analogous positioning of the pairs." This section (briefly) outlines a partial reconciliation of the theoretical oppositions, or antinomies (c.f., Roseberry 1989), between the social and biomedical science approaches to ADHD via the body and embodiment. Speaking of the body (in archaeological work), Sofear comments:

> Historically the study of the human body was the province of scholars with medical backgrounds some of whom became interested in the past. This arrangement reinforced the divide between the study of physiology and sociality (2006: 6).

The incommensurability between paradigms can be oriented in terms of a dualistic post-Enlightenment Western metaphysics. This metaphysical duality can roughly be characterized in terms of materiality/ideality, which is manifest in a variety of forms—sometimes implicit, other times explicit—since Descartes.[1] Take, for example the dichotomies of: body/mind, body/soul, nature/culture, physical body/constructed body, and natural science/social science.

In the philosophy of Descartes the unity of materiality and immateriality was placed in God; in the philosophy of Hegel (1830) the reunification is located in Geist (Mind). Hegel and Descartes attempted to solve the material/immaterial problem via reunification through an externalized Other: Mind or God respectively. Here, the lived experience of materiality follows from the reunification of different metaphysical *things*. While these are interesting solutions to this problem, they are too idealistic and fail to consider material processes. It is more productive to argue the fleshed (or un-fleshed) body comes first. These *things* -- material/immaterial, body/mind, nature/culture -- are ways of thinking and talking about subjectivity, but they are not essential to it.

This dichotomy has long been recognized as an issue, but it remains a persistent metaphysical, and by extension epistemological, problem in anthropology. William Roseberry argues that "the history of anthropology can be written in terms of a series of theoretical oppositions, or antinomies—evolutionism and particularism, science and history, explanation and interpretation, materialism and idealism and so on" (1989: 30). How does this extend to ADHD? These dualisms, or antinomies, have been reproduced and reified in the intellectual void between the social and biomedical sciences. These epistemologies have subsequently been rendered incommensurable. This gets in the way of understanding the lived body, the fleshed

[1] This metaphysical duality is often located as having originated in antiquity, in the philosophies of ancient Greece. For our purposes and the sake of brevity, I will not extend this analysis farther back than Descartes.

body, the material body. Of the body Nietzsche writes, “'body am I, and soul' -- thus speaks the child. And why should one not speak like children? But the awakened and knowing say: body am I entirely, and nothing else; and soul is only a word for something about the body” (1956: 146). With his characteristic elegance, Nietzsche effectively solves an aspect of our metaphysical problem. Nietzsche gives us the material *body*, but he does not give us an account of embodiment. In general terms, embodiment refers to a unity of consciousness, body and practice (Turner 2012). According to Csordas, "embodiment has as a principal characteristic the collapse of dualities between mind and body, subject and object" (1988: 7).

Using contemporary phenomenological anthropology to build upon these ideas, the remainder of this section will look at the lived body, and potential applications to the subjectivity of ADHD. According to Desjarlais and Throop, "to examine experience from a phenomenological perspective is to recognize the necessary emplacement of modalities of human existence within ever-shifting horizons of temporality" (2007: 88). Human existence is always structured, and played out in *time*; elements of past experience are embedded in the present and continually remade as people navigate the world. Human experience of the world is always partial and there is always more to experience; various ways of being in the world potentiate some possibilities while "foreclosing others" (Desjarlais and Throop 2007: 90). While some pure philosophical phenomenology runs the risk of considering experience in highly individual—possibly a-political—terms, phenomenological anthropology allows for a consideration of the interplay between political economy, discourse and the body. Political economy and discourse are essential to theorizing the body because humans are necessarily active, cultural beings; however, it is because we are embodied and in the world that *culture* is

constructed and *reproduced*. This is in line with Heidegger's ideas, further developed by Olafson (1956):

> to say that something acts is to say that it makes a change in the world, and that is possible only for an entity that is itself in that world and in it in a way that permits acting on it. We know of no way in which that can be done in a world of material things like ours unless the entity in question is or, as we also say, has a body (cited in Turner, 2012: 62).

The body is what acts in the natural world, and therefore at the most basic level the body and *material* culture are not separable: "the body is in the world from the beginning" (Csordas 1988: 9)—the natural and the cultural are inseparable, constituted at the same experiential moment.

The phenomenology of Heidegger has been influential in the deconstruction of Cartesian conceptualizations of the body (Turner 2012). Of principal importance is Heidegger's overcoming of the dualistic metaphysics discussed above, and unlike Nietzsche, he does this systematically. His solution is the concept of Daesin, or 'there being'. For Bryan Turner:

> Heidegger's philosophy attempted to transform the abstract notion of being in conventional philosophy by focusing instead on the everyday world of being and practice which is characterized by a taken for granted understanding of being-in-the-world.... A human being has therefore to be understood within the context of time, as the temporal development or unfolding of the life-course towards death (2012: 64).

Daesin is a being in the world; it is a way of being bodily in the world and time. As such, theoretically, Daesin can be equated with embodiment; for Turner it represents Heidegger's "hidden theory of embodiment" (2012: 64). Heidegger understood history to be processual: "the life of an individual can only be understood in terms of the collective narrative of a community unfolding in history" (Turner 2012: 66).

A processual view of human history can also be seen in Foucault's social theory and his genealogical, historically-embedded body. The body in Foucault is embedded in, and according to Crossley (1996), *partially* inscribed by historical processes. Many theorists have argued that

the body in Foucault's theory is entirely overdetermined -- it is an inscribed body and not a lived body. Contra this, Crossley argues that "we do not need to choose between the lived body and the inscribed body" (1996: 99). Accordingly, he bridges the gap between Merleau-Ponty and Foucault's theorizing of the body and brings them into a productive dialogue:

> while they both accept a definition of the body as active and acted upon, [they] tend to emphasize a different pole within this duality. Merleau-Ponty tends to concentrate upon the active pole, while Foucault tends to stress the acted-upon pole (Crossley 1996: 106).

A dialogue allows for an understanding of how the material body is both lived and inscribed—not simply one or the other. Both Foucault and Merleau-Ponty "oppose the notion that the body is an object-like system... they each focus upon socio-historical conducts of behaviour. The body, each maintains, should be conceived of as a bearer of such conducts" (Crossley 1996: 100). Foucault's work conceptualizes the material body—fleshed, sexed, lived—as the intersection of historically-potentiated technologies of bodily power. According to Foucault, "it is in discourse that power and knowledge are joined together" (1978: 101). Because the body is the intersection of discourse, Foucault is centrally concerned with embodiment. The way discourses are inter-subjectively produced and experienced—fat, insanity, sex—demonstrates the inherently political nature of the body.

For Foucault, "the history of sexuality—that is, the history of what functioned in the nineteenth century as a specific field of truth—must first be written from the viewpoint of a history of discourses" (1978: 67). The history of sexuality is a history of the body, seen through the looking glass of sex. Because sexuality is a way of talking about the lived experience of the body this is theoretically transferable to the present discussion of ADHD. In this sense, ADHD needs to be located in the positive mechanisms of truth, power, and knowledge through which bodily experience *comes to be*.

Merleau-Ponty is also interested in the phenomenology of the body. Whereas Foucault's body is inscribed by knowledge-power, Merleau-Ponty's body is quite active (Crossley, 1996). Merleau-Ponty's phenomenology works against behaviourist and mentalist conceptions of human being, both of which unfortunately dominate a significant portion of North American clinical psychology. Merleau-Ponty argues that human mental phenomena are not derived from higher order mental 'acts' (Crossley 1996). For example, attention is not preceded by an abstract mental activity of paying attention. The body is:

> only of political significance because the body is our (active) way of being-in-the-world. It is because we exist by means of embodied action that it matters how our bodies are treated and how they perform. What would be the meaning of 'body-power' if the body were nothing but flesh and bone? (Crossley 1996: 114).

Following Butler, who asks "if everything is discourse, what happens to the body? If everything is a text, what about violence and bodily injury?" (2013: 164), we can add Crossley's (1996) question: *what is the meaning of body-power, if the body were nothing but discourse and language?* Attention, or lack thereof, is an embodied phenomenon and is not separable from the body, thus the problem with constructionist conceptualizations of ADHD which pay no attention to the materiality of the body.

A consequence of this theorizing is that the metaphysical-theoretical schism between the mind and body is not meaningful; similarly, the division of labour between the biological and social science ADHD literatures gets in the way of capturing a complete phenomenology of ADHD. The meaning of genetics, biology, discourse are theoretically unified in the engaged body subject; however, they are *pre-theoretically* inseparable. In social theory quite generally there is a tendency to emphasize the incompatibility of what come to be reified objects: nature/culture, active/passive, science/social science. Crossley (1996) demonstrates that we do not need to choose between the active body and the inscribed body; that we can use Foucault and

Merleau-Ponty productively together. Viewing the body as both acted upon and active—in a sort of tension—is more productive than either pole separately (Crossley 1996).

Csordas' discussion of embodiment also demonstrates that the body is not merely an extension or construction of culture, but rather that the body is the material point from which culture *comes to be*: "this approach to embodiment being from the methodological postulate that the body is not an object to be studied in relation to culture, but is to be considered as the subject of culture, or in other words as the existential ground of culture" (1988: 5). He draws a distinction between natural objects (those things that we encounter in the world) and culturally reified objects (such as God and demons) which are made real via experience.

These perspectives provide a useful position within which to orient our exploration of ADHD as a category in use in the daily life of classroom teachers, administrators, students and parents. This allows us to postulate the different ways in which bodily categories are the products of people using them, as well as an aspect of identity. ADHD as an experiential phenomenon is interesting because it exists in a dialectic as both a natural object (the biological and chemical makeup of the body that potentiates it) and at the same time it is a cultural object and historical product.

Rather than arguing that a phenomenon is the result of genetics/biology or social processes, it is more useful to argue that bodily phenomena are the result of genetics/biology-and-social processes—physical-and-constructed simultaneously. As such, the experience of the embodied subject is not reducible to an ontological moment prior to its constitution as an embodied subject. In other words, the experience-viz-reality of ADHD is not reducible to either physicality or discursive construction, but it is rather *both* and *more* than each of these concepts.

This permits theorizing of the body to move away from sterile debates about whose theory is better; this can be extended to our seemingly disparate ADHD literatures. Rather than taking them as incommensurable, our understanding of the *experience and meaning* of ADHD would be improved if these literatures are positioned dialectically. These literatures, quite the opposite of being disparate, are talking about the same thing—how the phenomenon of ADHD is embedded in the body.

ADHD and the drugs used to treat this disorder are historical products arising out of the material processes of everyday practices. These everyday practices can be as simple as talking about ADHD to as complex as the development of new drugs to treat this constellation of behaviours and practices. In this thesis we will see the development of classifications in the specific social situation of the Sarnia classroom and examine how this deployment both maintains and produces the thingness of ADHD and its treatment. Classifications have consequences for the *nature* of human bodies, and "while it is possible to say that man has a nature, it is more significant to say that man constructs his own nature, or more simply, that man produces himself" (Berger and Luckmann 1966: 67). This can also be conceptualized in terms of a "materialism that is active. People enter into definite relations with other and with nature, but as they enter into those relations they transform both nature and themselves. Nature and the social world, then, are always socially constructed, historical" (Roseberry 1989: 38). In terms of discourse, what does talking about ADHD do? It changes its nature. And this changes the nature of the people classified; social processes change our physical bodies and how we make sense of 'selves'.

The apparent inevitability of the things we know about phenomena, for our purposes ADHD, involves the solidification of historically-variable processes at specific moments in time.

In the case of the bio-medical making-up of bodies, human biology is continually reconfigured through social processes, yet some of these processes appear to fit solely on the side of biology, as is the case with the nature/nurture debate in psychology and elsewhere. This is a significant fallacy about the nature of both the body and science/bio-medicine. It is too often assumed that because biomedical interventions like Ritalin or Concerta act upon biological aspects of the body, these exist outside of the social. Rather, the social-biological is inseparable, "*Homo sapiens* is always, and in the same measure, *homo socius*" (Berger and Luckmann 1966: 69).

Cultural processes of science and medicine modify the biological processes occurring in the human organism: synthetic pharmacological agents are produced via embodied-material action (Latour and Woolgar 1986) not in the kind of acultural world within which scientific activity is assumed to exist. It is impossible (and theoretically redundant!) to try to separate where the biological stops and the social begins. This reminds us of the unproductive character of the nature/nurture dichotomy we often encounter in discussions about ADHD. In addition to being theoretically awkward it is also theoretically flawed in the sense that the concepts 'nature' and 'culture' are based on category mistakes—they are from the beginning in a dialectic to the point that they are not empirically separate objects. Nature and culture do not exist in exteriority to each other.

Ways of Being a Person

During the preliminary stages of this project I believed that attention deficit hyperactivity disorder (ADHD) was not 'real' but was rather 'socially constructed'. In doing so I placed myself on one side of an ancient dichotomy. It eventually became clear that framing ADHD as either socially constructed or biological [genetic/evolutionary] could result in a rather limited understanding of the phenomenon and its politics. Because the variety of literatures about ADHD

includes productive elements, bringing them into dialogue can be constructive. The current reality of ADHD is undeniable; however as is the case with most phenomena its reality is quite malleable. The nature of ADHD is an extension of people's use of the classification to organize the experience of the behaviours, emotions and drugs associated with the category. The reality of ADHD is produced as people appeal to the classification in the practice of everyday life.

ADHD is socially constructed; this statement is not wrong, but it does not tell us very much either. This statement may, for some groups, be politically useful, but theoretically it is not very interesting. Following the work of de Certeau (2011) and his student Foucault (e.g., 1978) it is already well understood that phenomena are not inevitable; phenomena are socially constructed, yet solely analyzing the product in its current state (itself always a moving target) can only tell us so much. In this sense, the statement "X is a social construct" is a dead metaphor:

> Anything worth calling a construction was or is constructed in quite definite stages, where the later stages are built upon, or out of, the product of earlier stages. Anything worth calling a construction has a history. But not just any history. It has to be a history of building. There is no harm in one person stretching a metaphor, but when many do, they kill it (Hacking 2000: 50).

Social constructionism as a theoretical tool originates from a desire to demonstrate that *things* -- ideas, categories, people -- have a history and are continually re-made in light of historical processes (Berger and Luckmann 1966). Hence, in order to understand how ADHD 'works' in the education sector in Sarnia, Ontario we need to explore the 'making up' of ADHD. In order to give a balanced history, I have drawn upon both social science and pharmacological literatures, indeed both sides simultaneously contribute to the production of the *thingness* of ADHD.

There is a deep historical link between the overturning of sovereignty, the emergence of government, the processes which allowed population to emerge as a datum, as a field of intervention, and as the objective of governmental techniques (Foucault 2003). As such, the

constitution of knowledge of bodily governance is inseparable from knowledge of the process related to population; biomedicine is currently one of the most significant manifestations of this kind of knowledge-power. Lock and Nguyen situate biomedicine as:

> the product of particular historical circumstances in which systematic efforts began to be made to understand nature, making use of the techniques designed to produce an objective description of the material world. Knowledge produced about the body and its management in health and illness was firmly situated in the domain of objectified nature (2010: 32).

Following Foucault, Lock and Nguyen (2010) argue that a crucial change in the conceptualization of the normal body arose when bodies and bodily attributes came to be talked about in terms of statistical norms or averages, i.e., the normal curve. They argue that: "individual bodies were 'normalized' both biologically and statistically" (Lock and Nguyen 2010: 32). As bodily normativity came to be conflated with statistical normativity, *normal* was understood as deviation from 'the statistical-normal.' Hence, normal came to be defined via the bell curves of statistical surveys of populations.

Lock and Nguyen (2010) argue that the standardization of diseases in the 19th century was also important in the emergence of today's concept of normal. They cite Georges Canguilhem who argued that normativity can only be understood in terms of its historical context. He commented, "strictly speaking there is no biological science of the normal. There is a science of biological situations and conditions called normal" (cited in Lock and Nguyen 2010: 44). As such, normal is often seen as a lack of difference, an absence of pathology, the avoidance of disease.

This discursive orientation puts individuals at perpetual risk of becoming abnormal. Besides ADHD, obesity offers another salient example of this perpetual risk. Biomedical discourses of normal and abnormal have come to dominate cultural discourses of fat subjectivity

and fat embodiment. In other words, biomedical discourses of obesity have become a 'common sense' of fatness -- and this common sense leads to the constitution of 'fat subjectivity'. Boero (2007) argues that obesity came to be increasingly medicalized following World War II. There was a pre-existing aesthetic of thinness and scientific discourses came to replace a formerly moral model of fatness. The current scientific model, with its emphasis on BMI, is quite problematic. Like those of mental illness so often are, definitions of obesity are quite abstract and highly contextual: in 1998, the BMI for obese persons was lowered from 27 to 25, with the result that overnight 50 million Americans became *defined* obese (Boero 2007). However, in both of these cases, there is always more than simply discourse.

As such, while normal has a benign ring to it, it is one of the most powerful ideological apparatuses of our time. This leads Lock and Nguyen to position normal as a kind of knowledge-power: "normal for what?" and "normal for whom?" (2010: 46), they ask. Lock and Nguyen comment further:

> For the majority of practitioners and the public alike, there is no denying that the present frontiers of biomedical knowledge represent the fruits of a long history of progress and scientific discovery, but... biomedical knowledge and practice are culturally embedded, so that the effects of their global dissemination are by no means straightforward (2010: 54).

The benefits of biomedical science to the overall health of the population cannot be understated, however, like all science, biomedicine is a human activity and is therefore not outside of politics and power. Similarly, Hacking (2007) notes that we always need to consider the power-effects of taken for granted and seemingly innocent or natural scientific categories. I appreciate Lock and Nguyen (2010) because they criticize some of the problems and contradictions involved in biomedical epistemology while acknowledging that it is indeed very useful. Science criticism

does not need to equal science hate -- and the former is also more likely to be taken seriously by both scientists and the public.

The philosopher of science Ian Hacking contributes excellent material to the theorizing of bodily and medical normativity. Hacking (2007) examines classifications of people, how the classifications change the people classified, and how these effects end up changing the classifications. He argues that classifications create new ways to be a person: "'making up people' referred to the ways in which a new scientific classification may bring into being a new kind of person, conceived of and experienced as a way to be a person" (2007: 285). Simple changes to the classification affect those classified. For example, when symptoms of both inattention and hyperactivity were included in the DSM-III there was over a 50% increase in the prevalence of the disorder (Conrad and Potter 2000).

Hacking also argues that people's embodiment of classifications interacts with and actively changes/reproduces the classification: "the 'looping effect' referred to the way in which a classification may interact with the people classified" (Hacking 2007: 286). In this way, the social, medical and biological sciences can create new classifications of people and new types of knowledge, which these schools subsequently study (and perhaps reify).

These new knowledge-power apparatuses potentiate the existence of new types of subjective embodiment, ADHD being a case in point. ADHD has *come to be* a way to be a person. ADHD was not always a way to be a person, nor will it always be a way to be a person: its existence as a category is embedded in historical/temporal forces which are always coming-to-be. By extension, normativity more generally is always embedded in historical context and as such normal is always coming-to-be: "we make ourselves in our own scientific image of the kinds of people it is possible to be" (Hacking 2007: 305).

Chapter Two: Teachers' Experiences with ADHD Students

Introduction

This second chapter is the first of two largely ethnographic portions of my thesis. This chapter carries forward the biocultural approach of the previous chapter by working out from the experiences of the teachers I interviewed towards a presentation of teachers' work knowledges about ADHD, medication and behaviour problems. Following theorists like Michel Foucault and Ian Hacking, I make a case for ADHD being, for the most part, a *productive* classification, as opposed to being disabling or restrictive. Likewise, ADHD is not the kind of classification which *represses* or constrains identities, but rather potentiates certain kinds of embodiment and corresponding identities. Rather than naming *a priori* facts about bodies, the classification (naming) and use (practice) of ADHD is deeply entangled in the production of particular shared—social-and-biological— experiences of bodies. Carrying forward an analysis rooted in the phenomenology of the previous chapter, I begin with an exploration of the meanings ADHD has for teachers in Sarnia. This leads toward a re-configuration of how stigma operates in relation to ADHD. This moves into several sections which explore how teachers conceptualize the effectiveness of medication and how they perceive their role in the diagnosis of students.

Stigma and ADHD

Among the teachers I interviewed there is a persistent belief in the medical, not moral, nature of the problems of the students with ADHD and its related behaviours. However, this does not fully dissolve the stigma[2] of the disorder—rather the location of the stigma's origin is

[2] My discussion of stigma throughout the thesis is indebted to Erving Goffman's (1963) work on stigma.

displaced from individual moral failings to biological or social failings. Hence, for these teachers, the moral qualities of the behaviours associated with ADHD are sublated as they become solidified into a medical object, the formal classification ADHD. This reflects the necessarily historical process through which facts are negotiated and configured around bodies in the classroom. Through historical processes, behaviours with a formerly stigmatized or moral quality have come to be thought of in medical terms as illnesses and in doing so lose their earlier strictly moral qualities—yet elements of moral evaluations are retained in this process, and the medical categories are anything but neutral. The effect of this process is neither 'good' nor 'bad', but rather enables certain things and simultaneously disables other *things* for the actors entangled in the processes which make ADHD a way of 'being a person'.

On a related note, once I began my analysis I noticed that in my interviews there was a subtle tendency among my participants to translate my interest in ADHD into an interest in behaviour problems as opposed to intellectual or learning disabilities. Questions about ADHD initiated responses which reflected concerns about both learning disabilities and behaviour problems, yet the majority of talk focused on the latter. From this kind of talk it is apparent that the teachers in my study experienced ADHD most saliently as a behavioural problem. Even when the intellectual and learning problems associated with ADHD were explicitly discussed, the associated frustration and boredom were generally understood to translate into some kind of externalizing behaviour such as: hitting, kicking, fidgeting, acting out or talking/shouting. Christine, an elementary school teacher for over a decade commented:

> Talking about behaviour problems, what is the cause? Is it because a student is feeling frustrated? Is it because a student is feeling bored? So I guess trying to meet their learning needs will help make them successful, this will help prevent some unwanted behaviour. What is unwanted behaviour, we talked about swearing, but sometimes if someone is chatting or off topic, it is harmless. Socializing with friends is something everyone does. We talked about the rigidity

> of the curriculum, so sometimes you feel like you need to learn every second of the day. Is it okay if you talked about a movie that you saw last night? Nobody is hurt. It is not the same as physical conflict or a verbal conflict where there is actual injury to someone's feelings or physical injury. That is a serious behaviour. I have had very little experience with anything 'serious'.

Yet, as opposed to other behaviour problems, which may be assumed to be the child's choice or fault, it became clear that ADHD was understood to be outside of the individual child's control. The concept of removing responsibility from the individual student and displacing it onto other objects or actors is an important theme throughout both chapters two and three. The medical nature of the behaviour opens up a space for teachers to consider the structural aspects of 'behaviours' (medicine, parents, home life, income, etc.).

I approached this research with the intention of studying how teachers made sense of ADHD in their daily work lives, or in other terms, the role teachers' work knowledges play in the production of ADHD. The teachers I worked with were aware beforehand that this particular aspect of classroom life was what brought me to them, yet conversations quickly revealed that ADHD was one aspect of a much broader knowledge about behaviours in the classroom. As such, the majority of talk focused on classroom behaviour problems (usually referred to in the educational jargon of 'behaviours'), curriculum changes, structure of the classroom, and the effect of standardized testing on educational practice (discussed at length in chapter four).

Quite the opposite of this being a problem for my research, the broad range of talk created an open space for the discussion of those practices which concerned teachers most in relation to behaviour problems—some of which are caused by ADHD—and the corresponding effect on student success. The openness of this data is useful for several reasons. Firstly, it permitted talk about ADHD without coming to or using a specific or 'official' definition of ADHD, which allows for an analysis of how the classification acts as a 'category in use'.

Likewise, it made it clear that there is not really an agreed-upon definition of ADHD which teachers use. For example, ADD and ADHD tend to be used interchangeably and the preferred language to talk about this cluster of behaviours is 'behaviours' in an effort to avoid formal labeling. It is in medical diagnostics and treatment that formal labeling is a necessity; a formal diagnosis of ADHD is required for medical intervention. Importantly, formal diagnosis was seen as useful for severe cases, but this is quite universally seen as the domain of medical professionals. Furthermore, it was widely agreed that in most cases medication is effective—although some 'effects' were not totally understood by the teachers I interviewed.

ADHD was highly salient for the teachers in my study: for them it made sense, produced consequences, and hence produced certain ways of being both a teacher and a student. Because I interviewed a range of teachers from almost brand new to retired, I was able to look at how shifts in the salience of the classification changed the way in which teachers think about ADHD. In the late 1980s and early 1990s, when there was a rapid expansion of drug treatment for ADD, Ritalin was seen as a magic answer among many parents, doctors and teachers. For participants teaching at that time, diagnosis was seen as out of control. Speaking of that time period, Donna told me,

> There were kids on Ritalin to speed them up, and kids on Ritalin to slow them down, and kids on Ritalin because—in my opinion—they were not being parented, they were being left alone to their own devices. There was a period of time in which the medication was highly overprescribed, in my opinion. I don't think as many people needed it as were given it, and I guess there was just a time period in there where it just seemed to be the magic answer. When you were dealing with some of the parents in that area, 'little Susie is not doing what I tell her to, she must be hyperactive: put her on drugs.' Or, 'little Johnny is acting out too often when we go out to restaurants and we need to medicate him so that he can go out in public' and those aren't really the kinds of behaviours that need to be targeted for medication. It is the kind of behaviour that you need to sit down around the dinner table and treat each other like human beings and talk to each other. Then perhaps your kids will catch on that this is the way you behave when you sit at a table, this is the way you behave when you are out in public, they have never done it, so they don't get it. If you don't teach them, they don't know. There

> were many kids that were medicated for the wrong reasons, in my opinion. *I am not a doctor*.

She felt that during that time period medication was possibly being overprescribed, and also added that she did not feel that as many people needed the medication as were prescribed and treated with it in the early 1990s. Emma, another experienced teacher added,

> I do recall one year, oh it would be about nineteen years ago, I had a class that had about six kids in it that were ADHD. That was really my first time that I had ever even heard of it. Well I mean I had heard of it, but I had never really dealt with any kids with it. There were a huge number. So I did a lot of reading at the time. Tended to, even at that time, the more you read you think oh my: that kid has it, that kid has it, because of all the generalizations right? I mean looking at my own daughter I remember thinking, oh my she can't even sit at her desk—she was in grade one—she can't sit at her desk maybe she has it! So there were all those generalizations that I think we sometimes over diagnose what it is. But that was that time [speaking of around 1995].

Interestingly, the rates of ADHD and medical treatment were higher towards the end of this time period: there was a 500% increase in the use of Ritalin from 1990 to 1998 in North America (Widener 1998). Based on my interview data, by the end of the 1990s ADHD was so much a part of teachers' expectations of how bodies can or should be 'abnormal' that it was not seen as out of control by teachers. This was especially true of the younger teachers who had never experienced other kinds of bodily management in relation to this cluster of behaviour. The normalization of ADHD as a way to conceive of abnormality raises interesting questions about the changing contours of normativity, which will be addressed later in this chapter.

For example, a powerful, recurrent metaphor used by teachers in my study is the equation of ADHD support and treatment with eyeglasses (for poor eyesight), or with insulin for the treatment of diabetes. The discursive equation of poor eyesight or diabetes with ADHD is important, because it gets at the dissolution of the moral quality of the disorder as teachers practically approach it. Eye problems are a *normal* way of being *abnormal*, currently poor

eyesight has no (or very little) moral quality and can be called a 'normal' disorder. Likewise, Jane compared the way ADHD students should be accommodated to students with diabetes:

> [ADHD children] because of the way they interact in the classroom, they tend to get a lot of individualized attention. I don't have a problem with that. I think that if we can do anything for a kid we should do it. I think that the onus is on us to understand that for many of these kids it is simply an illness, and it is out of their control. They shouldn't be treated any differently than a kid who comes into our building with diabetes. We make concessions for those kids, so you have to make concessions for those kids that are coming in who have these other disorders that are diagnosable and treatable—in many different ways, not necessarily with medication.

Orienting ADHD as a medical problem similar to poor eyesight or diabetes demonstrates that the medical nature of this category is naturalized in this context. The validity of the category goes, for the most part, unquestioned and the focus is on how to help the child cope with and make sense of this disorder.

Some of the first things teachers notice about students who may have ADHD are restlessness, inability to focus, or actions that begin to distract other students. ADHD is a historically transient classification and can be productive and enabling for a variety of actors. The constellations of meanings of ADHD are transient both historically (the meaning of the disorder is negotiated over time and across spaces) and in the bodies of the individuals who embody this category in the practice of everyday life (they learn to manage it). ADHD is malleable and the meaning(s) and people associated with the disorder are always *changing*. The experience of the category can produce a variety of benefits, subjectivities and discourses throughout time. Just as more people come to embody this classification, the nature of the stigmas/meanings of this classification are continually re-negotiated.

The transience of a category such as ADHD can be contrasted with certain mental disorders which are more fixed or permanent, such as retardation and to *some* extent disorders of

the autism spectrum. Permanent mental disorders are often genetic or teratogenic issues, such as fetal alcohol syndrome (FASD). In permanent mental disorders the individuals associated with the condition do not have significant play with how the behaviours manifest. Intervention in fixed disorders is more about treatment/care than it is about enabling success or higher performance in school. A 'permanent' condition of this nature does not have the same enabling qualities of ADHD. According to Oldani, who worked with aboriginal groups in Manitoba:

> ADHD and FASD diagnoses led to radically different medical outcomes and life destinies for children—one disorder, ADHD, is treatable (i.e., fixable with medications that adjust the neurochemical imbalance), normalizing an abnormality of modern childhood. The other disorder, FASD, signifies a 'life sentence' of learning disorders and/or mental retardation, which is viewed as immutable, though pharmaceutically manageable in its milder forms. Drugs, such as Ritalin, took on very different meanings in the contexts of these two diagnoses (2009: 136).

So while the stigma dissolves, or at the very least can *change* for a transient disorder like ADHD over time, the stigma and negative qualities of permanent disorders are more likely to be maintained. This is not to say that the meaning of more permanent mental disorders is wholly static—these meanings change historically as well, but people who suffer from these conditions are more consistently responded to as Others: feared and ridiculed, or medicalized as fragile and unable to care for themselves.

There are, of course, limits to my theorization of how stigma operates in relation to ADHD in Canada. Oldani demonstrates that in Winnipeg the processes of diagnosing ADHD tends to follow a racialized script:

> during clinical observations at both a specialized FASD clinic and a child behavioural clinic, as well as during follow-up interviews with nurses, it became clear that 'white' mainstream Canadian children presenting with ADHD-like symptoms fell into the clinical discourse of ADHD. However, Aboriginal children presenting with ADHD-like symptoms in any social domain (e.g., the [foster] home, the school, the clinic, etc.), were likely to be discussed in terms of the

> discourse (and clinical infrastructure) of FASD diagnosis and treatment (2009: 135).

In the above case, ADHD seems to have the same enabling and productive qualities I found in my study—for the white children. This dissolution of stigma did not occur among the aboriginal people in Oldani's (2009) study who were more likely to be identified and interpreted in terms of FASD. FASD diagnosis occurred despite a diagnosis of ADHD having the similar degrees of clinical validity—because in many of these cases there is considerable leakage between the two categories. Commenting on the experience of one of his participants, Oldani adds: "in Dorothy's pharmaceutaical narrative, one can clearly see how Ritalin prescriptions conjured up a familiar, yet uncanny, and ever-present Aboriginal fear: losing one's children to the state—a very old colonial script" (2009: 147). Although significant numbers of aboriginal students attend the schools from which I interviewed teachers, I did not find this racialized diagnostic script in my study. Rather, there was almost no discussion of race or FASD by my participants, although given the statistical rates of this disorder there would undoubtedly have been students with FASD in their classrooms. This points to variances in the meanings of mental illnesses in different cultural contexts, especially in cases where racialized-colonial violence (especially experiences in residential schools) remains directly operative.

ADHD enables access to the range of medical interventions discussed above, as well as access to accommodations and modified teaching practices. Generally, the teachers in my study noted that there is a tendency towards an increase in behaviour issues in general in their classrooms. The kinds of behaviours discussed varied across participants. Importantly, several of my participants pointed out that they felt at risk of painting an overly negative picture of their work experiences because of my interest in behaviours that tend to be associated with underperformance and disruptions. So while 'behaviours' and ADHD specifically were present in

all the teachers' experience, these were not necessarily seen as highly problematic, but rather something that could be managed and dealt with if addressed correctly. I would expect that, had I sought to emphasize the numbers of positive behaviours or successes of their students, our conversations would have emphasized those elements (which came out regardless). The increase in number of children *diagnosed* with ADHD is necessarily related to the fact that more children are *diagnosable* as this classification is appealed to in the practice of everyday life.

Perceptions of the Effectiveness of Medication

Stimulant medication usually increases the child's ability to get along with others, focus on work and feel successful. Medication was seen by my research participants to be effective when properly prescribed and administered. Likewise, as discussed in the first chapter, stimulant medications have improved since the 1990s. According to older teachers, in the past the regulatory effects of medication were quite variable throughout the day. Earlier stimulants would wear off before lunch, resulting in a period of restlessness until the children got another dose. Donna, a now retired teacher who worked in special education/regular classrooms for over 30 years, offered these thoughts:

> Some kids who really need the medication, you can set your watch by when it wears off. I had one little guy who took his meds early in the morning, this was before balanced day,[3] so we are talking lunch at 11:55 a.m. to 1:00 p.m. At about 11:30 a.m. he could spin a chair on one leg. He would start, he just couldn't sit still, he just couldn't focus on anything. He just couldn't—there was no way. You knew it was time for medication. And he walked home for lunch, we did not have any medication. We sent him home for lunch hoping he would make it because he was all over the place. He would come back in the afternoon and he would be just fine. The medication would last until the end of school. So afternoons were fine, it was just the half hour before lunch the medication had worn off and there wasn't a thing you could do to help this kid. Nothing at all.

[3] The balanced day refers to having two 40 minute breaks (late morning and early afternoon) instead of having 2 short recesses and an hour for lunch.

New longer-acting drugs like Concerta are timed release which more consistently control the levels of drug throughout the day.

Teachers I talked to noticed significant changes in medicated students. Some comments from different teachers are included here to illustrate the range in the way teachers were thinking about ADHD. Emma commented:

> I notice an ability to sit. An ability to focus is a huge one. Some of them [students] will come in and be all over the place, they don't know what to attend to—focusing is a big thing, the hugest part of it. The medication is definitely helpful, but I am not a big proponent for medication actually. I think as a parent, if I was asked, I would try everything outside of medication first. But there are a ton of kids who do better on it. I also think there are a lot of kids on medication who may not need to be on it, but there are also a lot of kids who cannot focus at all without it. And the thing is they are great, a couple of the ones I am thinking of are quite bright, but without it they are just scattered. And then the key from there, once you have them focused, is to teach them some compensatory skills: how to stay organized, how to do those kinds of things. This is someplace I think we probably could do more.

In terms of negative effects of medication explicitly, Emma remarked,

> I don't think we notice them [negative effects] at school. I think parents notice it—definitely eating. They eat less, so they are often quite thin... they lose their appetite. I think sometimes, parents don't want them on them, they do the slow release through school and then at the end of the day they don't. So coping at home can be more difficult for them.

Christine describes a student in one of her classes who had ADHD, noting that allowing him to move around as opposed to forcing him to sit still was a new 'best practice':

> I had a student two years ago and he was bouncy, he was like a ball. He was pleasant, very pleasant, and kind of like attention seeking. Someone with a smiley face, but bouncy and very twirly. He could not stay still. And now the new best practice is to not require students to sit still for long periods of time. We are encouraged to let them move around, to encourage kinesthetic learning, to encourage—of course we have to sit down and write essays or sit down and work on a math equation—but to balance this out with activities where there is lots of moving or engaging with the whole body.

Jane offered some interesting comments about the difficulty of noticing when a student may be suffering from ADHD, but without the hyperactivity (inattentive-type ADHD). It is interesting to note that this is the way the disorder tends to present in girls, according to the diagnostic literature. However, Jane does not mention that this kind of behaviour is more prominent in girls—and this absence is significant. Girls tend to occupy a space outside discursive expectations of what ADHD is. Subsequently, female behaviours are less likely to be defined or experienced as resulting from with ADHD. Jane observed:

> Then we have the kids that have not the ADHD, but ADD (referencing inattentive-type ADHD) and it is so much harder to recognize that in a child because when you have a child that's got behaviour issues—now we just call it a *behaviour*—and when you have a kid that just can't attend, but they are not a behaviour. It is really hard to differentiate. You are not sure if it is personality with those ADD kids, are they a quiet and reserved personality, or is it really something that you need to investigate further. It is much, much harder to diagnose. I would say that those are the kids who fall through the cracks, who don't get what they need more often than the kid who is a behaviour. We go to great lengths to deal with behaviour kids, we give them one on one support, we make sure we have sensory rooms for them, we make sure that everybody in the building is aware of who they are, so that if there is a problem they can help deal with that student. Yet behaviour kids, I think sometimes, if there was more consistency in their programming, if we changed our programming a little bit more and if we worked more closely with the home, then perhaps those behaviour kids would not be so much of an attention seeking part of your classroom. Then those kids who tend to be the quiet maybe ADD, maybe just shy and quiet kids, you would be able to spend more time with them and help bring them more out of their shell.

Inattentive-type ADHD is much harder to notice and tends to go un-diagnosed, which possibly accounts for some of the significant gendering present in this disorder. It is possible that *some* girls could benefit from an ADHD diagnosis/treatment, but may not be identified because they appear to be focused the majority of the time—or at least are not disruptive.

Parents do not always tell the school about their children's medication. Conversations between parents and teachers about medication tended to be casual and not official. Teachers

also noted poor communication between the health care system and schools because parents need to sign consent forms (something they were not always willing to do) before health care providers can disclose information to schools. In this case, there is not much the school can do to gain access to information about the child's medication. In some ways, this may be changing as people are becoming more open with regards to medication in general. Emma noted:

> [in the past] you might not know who is on medication, now that is changing. That is something that has definitely changed over the last few years. And it has changed for me personally, because I am now a resource teacher, for the last four years. So every kid that I deal with is on some sort of medication, so I am well versed in the amounts, as well as what they are on. As for a classroom teacher, they can be privy to that information. But I know as a classroom teacher it was not something I ever went looking for, unless I saw a change in behaviour. And then at a school team meeting, that is where we would talk about it. We would review and see 'Johnny has had a med change.' That is something that is changing as well. Now, because I am aware of it, I have a form—this just started in the last four years—that when a student goes on a med change, I give it to the teacher so that the teacher can write down what is going on. This gives us better information for the pediatrician, because of course they are being monitored by a doctor.

Emma felt that this increased communication was useful. The board office form Emma mentioned is still new (it has been in use for two to four years in her estimation). Teachers often filled out forms or communicated information back to parents about what was going on in the classroom, as well as any changes they may have noticed. In the end, the choice to medicate is ultimately up to the parents and the doctor, it is a conversation they need to have together. Other participants felt that parents may not want to tell them/the school about medication in order to avoid labeling, and for this reason they were afraid to divulge too much information. However, as discussed previously, the classification of a student as ADHD does not seem to be damaging or negative in the majority of cases.

Until recently, as noted above, there has not been a definite way of knowing whether or not a child is taking medication while at school, unless the parents or child tell the teacher. The

consensus among the teachers in my study was that while there is not a clear way of knowing how many students are medicated, it is likely that not as many students "as we might think" are medicated. Christine, teaching at a fairly affluent 'north end' school, felt that the ADHD cases were "the extreme cases" and in those cases the medication seemed to work quite well to support the children, especially by helping them focus on work. Emma, teaching at a much less affluent 'south end' school, noted,

> I see a fair amount [of medication], we dispense at school now. Parents will often give it to them in the morning if it is a slow release. We have a lot of kids that in the morning the parents can't get it into them, for whatever reason so we do it right when they get to school. You can tell they haven't had their meds and they are sent to the office to get the ones kept there. They take their meds and it takes twenty to forty minutes for it to kick in most of the time. And they are like different kids.

Additionally, teachers in my study pointed out that once the child is medicated and able to focus and succeed, this success can enhance the child's self-confidence which improves many areas of life, both academically and socially.

In some cases, some children go to the office to get their pills (a shorter acting medication like Ritalin) sometime during the day—usually late morning. Emma remarked:

> The parents, they try and get it done [administer the medication] first thing in the morning because a lot of the medications are slow release. So if for whatever reason the kid comes into class really amped up you can tell. You can buzz the office and tell them and he will go down and they will make a call. And then they have permission to give it to the student. Then the student will often stay outside the class or in another area until the meds can kick in. Then they will go back to class.

When medications are regularly administered at the office, a medication plan can be set up and different times to administer the drugs can be experimented with (along with doctors and parents) to find the best solution for the child. It was rare for teachers to know exactly what type of medication students were taking. This being said, via PA (Professional Activity) days and

informational workshops (one of which I attended with a participant) teachers are actively working to become informed about the medical nature and treatment of ADHD.

Being consistent with medication was seen as a critical component with regard to its effectiveness in the management of behaviours and the subsequent improvement in school performance. Teachers observed that being inconsistent with medication can cause a myriad of problems for the child's ability to focus and health more generally. For example, this affects the child's ability to feel regulated. Stopping medication all summer, during vacations or on weekends in some cases was considered to have a negative effect on children's performance. My participants felt that being as consistent as possible was an important factor in the health of children and their overall success in school.

All of the teachers I interviewed in some way articulated that they could easily notice when the medication was not being used properly or was not working. The most frequent issues noticed were that the medication was not given consistently by parents; the constant adjustment to the drug causes problems. For example, parents often take the child off the drug over holidays or on weekends. Jane described some of the things she noticed about medication in her students:

> The story you will get from the parent is what the child is like at home. And the child is totally different from the child you see at school. So you never really have any idea of what that child might be like in your classroom without meds. Because the parents say, well at home he screams at me, he swears at me, he throws things around, he can be very physically aggressive. So we have to make sure he has his meds before he comes to school. And then there have been cases where, because I teach an older grade (grade seven and eight), there have been cases where sometimes the child is allowed to give themselves the medication. Either they don't take it. So then you see a kid who is a little more active that day. Or you see a kid that has taken the wrong medication that day. A lot of the drugs that they take to be able to sit still and attend in class, they can't sleep at night. So they take sleeping pills. So I have had students who have taken their sleeping pill in the morning when they thought they were taking something else. So then you have to call the parent to come get the kid because the kid can't stay awake in your class. So it is not necessarily a good thing. Then you find out these kids who are twelve, thirteen, fourteen years old and they are taking so many different

> medications and you think, well what kind of message are we sending them. How do they know what they would be like without the medications?

Sleep problems, specifically alterations in sleep architecture resulting in decreased time in REM sleep and insomnia, could very well contribute to long-term deficits in learning and retention (Frankenberger and Cannon 1999). Sleep problems are one of the most common side effects of stimulant medications. Sleeping pills or melatonin are often used for children adapting to the stimulant medication. The drugs need to be carefully administered to the students, as many teachers pointed out students who were falling asleep during class. As mentioned, these students had accidently taken sleeping pills instead of the Concerta.

Teachers noted that children were better off when parents took a careful and active role in the administration of medication, as this is not the teacher's job. Likewise, several teachers discussed cases in which the child appeared to be 'not quite themselves' (lethargic, slow, restless) and when asked the child would say something along the lines of 'I didn't take my medicine today, my parents wanted to see if you would notice.' ADHD medication is the most effective medication for any psychological disorder. The effectiveness of the medication was emphasized at the ADHD workshop I went to with Jane in the fall of 2014. The pharmacist presenting at this workshop noted that stimulant medications are effective in about 75 percent of cases, further pointing out that no other pharmacological interventions (for other conditions) come close to being this effective. However, teachers clearly recognized that medication is not a substitute for good teaching or good parenting. In teaching practice, self-reinforcement and other behavioural interventions have been found to be more effective treatments for ADHD in the classroom than Ritalin alone. Furthermore, combined behaviour therapy and medication have been found to be more effective than either intervention on its own (Noland and Clement 1985). As such, combined-type interventions seem to be preferable to medication alone.

Karol and Jane, who both felt medication was effective most of the time, noted that sometimes students on medications did not seem like 'kids' anymore. The student may be sluggish or "out of it" and this was sometimes interpreted as a loss of self. Jane felt that sometimes medicating students resulted in a suppression of the child's individuality, "But I feel bad for him because... I had a kid once who actually said: "when I take my pills I know I feel better in class because I can do my work, but I don't feel like me". Jane went on to say, "do you really want to lose me? I don't like that."

Likewise, another participant felt that teachers are in general much more knowledgeable about ADHD and other mental conditions than they were in the early 1990s. This is not surprising given that ADHD and mental illness more generally are an increasingly salient category around which people make sense of their experiences. For example, Carrie, a high school teacher with close to three decades of experience, noted:

> [there are] greater demands on mental health. In the last part of my career, obviously there has been a lot at [the high school she taught at] and across the country really, and North America. So it [mental illness] is not just a Sarnia problem. More and more we are being asked to deal with mental health and increasing social problems that we weren't trained to deal with in teachers college. Sometimes this can be overwhelming. Some of them have so many problems, and again, not their fault but how do you address all of them?

We now accept that children are or can be mentally ill; this shift in classifications of expectations about bodies constitutes a more open space for mental illness to be talked about and focused upon.

I use the term “mental illness” to refer to classifications which are transient both within individual bodies as well as historically—think ADHD or multiple personality disorder (c.f., Hacking 2000). The idea of transient mental illnesses is borrowed from Hacking's (2000) discussion of the historical production of multiple personality disorder, and how peoples'

embodiment of the classification produced it and changed it over time. For my purposes, “mental disorder” refers to fixed or permanent conditions, which are *less* contextually constituted, and have a mix of enabling and disabling qualities—think autism spectrum, for example. And finally, “mental diseases” can be used to refer to conditions which have permanent, more uniformly disabling qualities both within the individual and structurally, here things classically referred to as 'retardation', fetal alcohol syndrome and Down’s syndrome may serve as examples. Distinguishing roughly between mental illnesses, mental disorders and mental diseases allows for us to draw a distinction between how a range of behaviours may be made sense of in practice. Learning disabilities and 'exceptionalities' occupy an interesting position here because they can be highly specific (a reading problem like dyslexia or problems with specific kinds of mathematical tasks) and co-morbid (or co-exist) with each of the above. For example, both ADHD and Autism-spectrum disorders can have a co-morbid learning disability, co-morbid giftedness or some combination of these. This demonstrates the porous nature of the range of classifications I distinguish between, and reminds us that while we can use archetypes to think about experiences, individual cases can be highly variable between and within classifications.

There has been a significant push towards open discussion/exploration of mental illnesses as 'kinds of people' in everyday life, to the point that *not* having a mental illness at some point may be abnormal. This is not to say that the experience of all mental illnesses is the same, nor is it to say that all mental illnesses enable things in the same way. For example, in the context of my study, depression is not a highly salient category for making sense of the behaviour of children. By extension, when compared to ADHD, a diagnosis of depression is more likely to produce stigma, more likely to be contested and less likely to be seen as a normal aspect of childhood embodiment. Unlike ADHD, depression is not a normal way of expressing

abnormality. For example, Tammy, a young elementary school teacher who has been working for about ten years, speculated that parents may be more comfortable dealing with ADHD than exploring whether the child is depressed or anxious. Perhaps the widespread understanding that ADHD has a biological basis allows parents to accept it as not their fault, when they might question whether they have contributed in some way to depression or anxiety in their children. This intensification of both interest in, and frequency of, ADHD is tied to the category becoming a "way of being a person" (Hacking 2007).

Teachers' (Perception of Their) Role in Diagnosing

Among my participants, ADHD was considered a natural category for labeling behaviours and was highly salient with the teachers whom I interviewed. However, my participants' acceptance of ADHD as a useful category *did not* translate into a desire to actively diagnose their students. Rather, every one of my participants explicitly stated that they did not feel it was their role to diagnose medical conditions in their students—this was understood to be the job of medical doctors and school board psychologists. It is interesting to note that while the teachers in my study were against schools pushing diagnosis on the children in their classrooms, this may not be true in other Canadian contexts. For example, in Oldani's Manitoba study, he found that schools were highly directive in the diagnosing and labeling students as ADHD:

> She went on to explain to the circle [an indigenous mother speaking at a healing circle] that schools in Winnipeg were always trying to 'get her to give the drug to her son,' threatening his expulsion if she did not comply, and that she consequently moved him from school to school to circumvent drug therapy (2009: 144).

The preceding comments highlight how regional and contextual variation affects how mental illnesses are thought about and experienced. One of my participants, Michelle, said that if teachers notice trouble in the classroom they might suggest to the parents to take the child to see

an expert on that constellation of problems, such as a medical doctor. Michelle would be careful to just describe the symptoms or behaviours she was seeing in the student to the parent, and hope that the parent would seek help. Likewise, Karen stated that, "I don't want to see kids over-diagnosed, but you see a big difference in how they act." She was careful, however, to distinguish between her role and the role of a medical professional by maintaining that "teachers are not the ones who give out the prescriptions."

Once the parents consult a physician, the doctor will often send a form or checklist to school for the teacher to fill out to help them make sense of what is going on while the student is in class. The doctor can then compare the results of the parents' assessment, the teachers' assessment and their own. More data is always useful in the diagnoses of ADHD, but it is the doctor's role to make the final diagnosis and prescribe any needed medications. The final decision to medicate a child belongs to the parents.

In Malacrida's (2004) study, she found that teachers tended to be directive in the suggestions they gave to parents in relation to ADHD treatment: they often told parents that they should consider ADHD as a diagnosis and seek Ritalin as a treatment. Additionally, teachers put a lot of pressure on parents by calling them frequently, sending children into the hallway, and in some cases humiliating the children in front of peers (Malacrida 2004). Perhaps predictably, given that I focused on the perspective of teachers, practices of this kind did not appear in my study. My participants were, however, critical of some practices of their colleagues: specifically, they noted that teachers and other school personnel sometimes—but not always—'diagnosed' students via consensus. Jane said:

> When you have kids who have consistent behaviours, because a lot of kids could have a bad day or a good day, whatever. When you have kids that have consistent behaviours, I think that is when teachers start to talk to one another. And by talking to one another they get this encouragement from one another. Then they

> decide there is something wrong with the kid and we should probably go to the parent and tell them to go to the doctor. I don't know if that is always the case—that there is something wrong with the kid, and I think we are very quick to look for something else rather than look at our own teaching practices. Because if you are not changing your teaching practices from year to year and you are getting a new group of kids every year, it may well be that it is your teaching practices. It is not necessarily the kid. It is hard to change and I think teachers are hesitant to change. Especially teachers who have a lot going on in their lives outside of school. You don't always have time to make changes, it takes so much time and energy and work to make changes outside of the classroom.

Jane also felt that some teachers were said to be very quick to look for other factors to locate underperformance in other than their own teaching practice; this would sometimes be up for discussion in the staff room or during other informal conversations. Jane, an elementary school teacher felt that teachers in her building loved to discuss problems with other teachers, but she felt that students should not be up for "public consumption."

Participants had problems with teachers who would sit down as a group and discuss the behaviours of various children in each other's classrooms. Additionally, Jane told me, "I don't want to know what other teachers think about a kid from previous years." Jane felt that it was not fair for her understanding of a student to be prejudiced based on other teachers' opinions of a student, feeling that it was better to find out about a student herself and then decide how to respond to the student. Jane noted that this is especially important in younger grades where students tend to change dramatically over time. Jane said that ADHD and other sensitive issues should not be talked about in the staff room, that teachers probably *do* talk about these issues more than they should. At the same time, these discussions probably represent a way for teachers to discuss the challenges they face at work, while seeking advice from their colleagues. Here it can be seen that teachers *can* play a role in medicalization, but they are not comfortable with that role, and voiced disagreement with this practice.

Likewise, all of my informants asserted that they were not medical professionals and diagnosing was not an appropriate activity for them. For a teacher to say to a parent that their child has ADHD (or anything else for that matter) was universally seen as wrong. Rita said:

> number one, as teachers, we have to be very careful that we never diagnose a child. I remember my principal saying to me [when she was a classroom teacher] 'never diagnose: you are not a doctor, you are a teacher, leave the diagnosing for the professionals.' So for a teacher to say to a parent I think your child has ADHD is wrong. That teacher should never say that to the parent. The teacher should give the symptoms and get the parent to go to the doctor and let the doctor deal with that. Sometimes the way this has been communicated to parents has been wrong.

When problems arise, teachers felt that it was important to quickly communicate issues to the parents. Emma added:

> First thing you do is have an interview with a parent and tell them your concerns. Quite frankly, it would usually be early because you would notice it academically first—they are struggling here in this, they are having trouble focusing. Then you'd have that frank talk about whether there are things going on at home. Where I am now [south end school] people are very forthright about telling you, 'we are going through a divorce' or there is this at home or whatever. And after that you try to come up with a plan of what we can do. If there was a family issue, I would say let's look into St. Clair Child and Youth, let's use all the resources we have. The problem being there's waiting lists of eight to ten months, things like that are difficult. But we would look outside to other agencies first, do those kinds of things, try and support the family, mom and I would work together. And then we have school based team meetings two or three times a year, and if there is a kid in your class that you are really concerned about you sit down with the principal and you have those big meetings. If it is continuous then you look into psych assessments through our board, but they are few and far between. You get about eight a year, per school. I was in a class where I thought I needed eleven in my classroom. So it is like a triage, but personally I have never been one, in 31 years, to say I think your child needs to be put on medication. *That is not my call*.

Good practice in relation to the identification of students involves the communication of issues a student seems to be having to parents in a non-directive, informative manner. Accordingly, teachers felt that problems need to be communicated with the parents in an active, back and forth dialogue. Parents want to hear from the student but they also want to hear from the school. The effectiveness of communication and support from home is dependent upon parents' background

and their own experiences in school. Communication can involve notes home, phone calls home and meetings at parent/teacher nights.

In this first ethnographic chapter of the thesis I worked towards a presentation of how a group of teachers negotiated the meaning of ADHD in their teaching practice as well as how they understood their role(s) in processes of diagnosis. As actors appeal to ADHD in everyday practice they maintain and change the nature of the classification. As ADHD historically comes to be increasingly salient, the moral or stigmatic quality of the category is continually re-configured. Accordingly, teachers experienced the category primarily as an enabling or productive category for the students in their classrooms. This is connected with the more general increasing acceptance of mental health problems as a way to order experience, although not all mental health problems are evenly enabling (and some continue to be rather restrictive). As an extension of this re-configuration teachers generally felt that pharmacological interventions were effective, although they maintained that it was not their role to actively diagnose children with ADHD. An important theme in this chapter is teachers' use of the classification ADHD to displace individual responsibility away from the children, especially as teachers compared stimulant medication to eyeglasses or insulin. The displacement of responsibility remains an important theme in the next chapter, where I explore how the teachers in my study navigated student achievement and various kinds of inequality. The location of responsibility has some interesting, and not necessarily straightforward, consequences in my discussion of how the teachers in my study thought about economic inequality, family structure and parenting style.

Chapter Three: Navigating Student Success and Ideas about Inequality

Introduction

While chapter two was centered around how teachers related to changes in stigma and their role(s) in the bio-medical treatment of ADHD, this chapter presents a discussion of strategies for helping ADHD and behaviour students succeed academically. There is, of course, some considerable intersection between the content in these chapters, because in practice they are not separate processes. In the previous chapter, I showed how individual responsibility and stigma was displaced onto the biomedical classification ADHD. Similar displacement of responsibility occurred in relation to other concepts, especially when teachers thought about the home environment and family structure. The second half of this chapter is concerned with how teachers thought about how inequality affected student success. Inequality was thought of in several ways. Teachers in my study felt that students' home environments may be related to ADHD and learning achievement in their classrooms. Teachers framed the home environment as being conditioned partly by economic background and partly by family structure/parenting style. Additionally, teachers discussed uneven access to certain resources between schools (such as access to technology). I begin with their understandings of how classroom structuring and supports affected their students.

Interventions in the Classroom

According to my participants, one of the most effective ways to manage the classroom was to have clear goals and expectations, as well as clear consequences for when expectations are not met. Teachers in my study felt that good teachers would inform students that they need to be responsible for their own grades and behaviour. Likewise, some students require quiet in the

classroom during periods of time they need to work independently. Of all the improvements and modifications recommended or discussed by teachers with regards to ADHD and other behaviours, consistency was probably the most important to them. Participants felt that master teachers had very organized classrooms.

Strategies used to improve consistency included what one informant called a homework book, also called a planner. Donna described how this worked in her experience, mainly as a tool to communicate what is going on at school to parents:

> I am afraid that more often than not I had a talk with parents about consistency. Medication was not something that I recommended ever. Like I said, sometimes they didn't even tell me they had it. I can't speak for other teachers, I don't know. I am a strong enough personality that I can say, between parents, this is what I am seeing and something needs to be done. I am doing this, this and this, and I would appreciate it if you would follow up at home and do this, this and this. We have a homework book, we have a journal—whatever the case may be—so that we can converse back and forth. So that we can keep this kid on track. So that we can make sure that everybody is good. I remember a parent coming in and asking me who this report card is about, who is the kid on this report? I said I don't understand the question. Well he doesn't behave like this at home, he jumps on the furniture. I said why? If you allow it, it will happen. If you guide it in another direction, the energy is used in other ways.

With regards to homework, if students were allowed not to complete it and there were no consequences, the student would be much less likely to do their homework. The homework book as a strategy is about responsibility, consistency and accountability. Quite simply, every day the child would get a signature in their homework book (a simple journal) and if the student missed a certain number of days a note or phone call would be made home to the parents. For most of the children, the desire to avoid missing signatures in the book helped encourage them to complete homework on time. This tool allowed the teacher to communicate information to parents about what was occurring in the classroom, while having documented instances of a child completing or not completing homework.

Unstructured periods of time, like transitions between class and recess, or lunchtime and class, tended to be among the hardest times of the day for hyperactive students. It is important for the students to go outside and have time to play, but students with ADHD may have a harder time calming down after these transitional periods. Tammy, an elementary school teacher for about a decade, remarked:

> The major area where kids struggle, this student particularly [speaking of a male student with ADHD] but I can say a lot of kids really struggle with this, is unstructured socializing time: recess. And he does not do well with recess, his group of friends they don't know how to properly socialize with each other so they just make each other mad. This is where the drama happens. This is where the behind the back fighting happens with the girls and the too-aggressive soccer games happen with the boys. And those awkward moments of 'I don't want to be friends with you' or 'I don't want to hang out with you.' This particular student was always looking for ways to sabotage the game. Which is really unfortunate because I can see, and all the kids can see that he is such a likeable kid, he really is. But when he gets in that almost... he is like a werewolf, he gets into that personality [...] people around him shut down. To have him medicated and socialize, it is confusing to be 12 years old and to have a friend who you can be around in the morning, but last recess 'don't you dare' because he is going to try to whip a ball at you or start screaming and yelling. It is very difficult.

Here we can see the significant difference Tammy noticed between this student's behaviour during the morning recess, when his behaviour was moderated by his medication, and the last recess where he acted "like a werewolf." Likewise, this also gets at just how difficult transitional periods and social time can be for some students with ADHD. Mary, a retired principal, felt that maintaining as much structure as possible during transitional periods was an excellent way to pre-emptively manage issues. While it seems quite simple, Mary felt that keeping the students walking in a quiet line whenever they move between areas, as opposed to being allowed to walk in a disorderly fashion, helped to keep them focused and calm.

Another simple behaviour management strategy involved seating structure. Teachers could sit students alone, in groups, with or away from certain other students. Likewise, the

layout, decoration, things posted on the walls were all things that teachers consider and actively manipulated in behaviour management. In some cases, however, there was little even a really great teacher can do to manage ADHD, and it is in these cases that medication can be beneficial to the student.

Behavioural Supports, Technology and Administration

The school board devotes significant resources to provide non-medical, behaviourally-based supports for students. Formal alternatives or additions to medical support for students include behaviour support plans and IEPs (Individualized Education Plans), which are given to students with exceptionalities ranging from below grade-level achievement to giftedness. Less 'formal' supports include providing short breaks to students, play toys called manipulatives, and sensory rooms (rooms with objects the students can play with/manipulate to give them a break). Christine described some of the available, kinesthetic teaching aids:

> The resource teacher has, have you seen the pillows? The rubber inflatable pillows that a student can sit on, it looks like a whoopee cushion, but it is just that squirming, that movement satisfies whatever it is that student needs. And there are things called fidget toys that the resource teachers and the parents often have so there is something that the child can play with. I mean that is the new idea to, not to sit in your desk, stay still, hands still, because that is not realistic for some students—students that need to move, need to fiddle. If they are not looking at you or fidgeting maybe they are listening but just not looking at you, or maybe if they are not listening, perhaps it is because they are someone that is unable to.

This is evidence of attention to, and investment in, a range of non-medical interventions and supports to help students succeed. Public school support for children with 'behaviours' or conditions like ADHD was said to be quite good, but the quality of these interventions can (unfortunately) be highly variable on a case to case, and school to school, basis. Teachers may also have a variety of different issues to deal with in their classrooms.

When commenting on the quality of educational support people tend to remember and embellish negative experiences over positive ones. The failures of any given system have a tendency to be emphasized over the successes. Public school support includes some special classrooms, access to resource teacher time, educational assistants for 'behaviours,' and extra time on tests. While current levels of support are beneficial in many cases, participants noted that the system was far from perfect. Oftentimes, until students severely act out, or severely underperform in the classroom, they are unable to get support which could benefit them. When children are diagnosed with ADHD they would generally be granted accommodations in the classroom, such as preferred seating. Accommodation is often simply good teaching practice, and the people I interviewed felt that good teachers would not have to change much of what they were doing in order to help a student with ADHD succeed. Good teaching practice was said to involve differentiating instruction, and setting up their approach to covering the curriculum in ways that meet the needs of their particular classes. Likewise, assessment and testing can be differentiated to meet the needs of students with special needs. Accommodations are supposed to be given to all children, whether or not the child has an IEP, whereas modifications are formally defined in an IEP.

An IEP is a legally-mandated document which is intended to ensure modifications for children with a range of 'exceptionalities', ranging from whether they cannot meet grade-level expectations or are defined as gifted. IEPs are reviewed every three years. IEPs intensify the 'positive' governance of the body, meaning that they tend to play an enabling, as opposed to restrictive role. IEPs represent a highly individualized and detailed approach to the auditing and assessment of the body in order to *improve* aspects of students' subjectivities. The school principal has a legal responsibility to ensure that the IEP is carried out by the classroom teachers.

ADHD will not necessarily elicit an IEP, but both gifted and below average students can have ADHD, so it is a possibility. In some cases, especially when a principal is not supportive, the classroom teacher cannot always accommodate the IEPs for all the students when up to ten students in a given classroom have highly individualized needs mandated on IEPs.

Rita, who recently became a principal, felt that new teachers were not adequately prepared for dealing with special education and IEPs following teachers college. Rita questioned the usefulness of extending teachers' college to two years if this involved an increase in the amount of time spent being taught in a university classroom. She felt that the only valuable part of teachers' college was the time spent practicing in the classroom, and that currently the practicum time is much too short. Furthermore, Rita felt that the second year of teachers' college should involve an internship in a classroom with an experienced teacher, so that by the time they come out of the classroom they would be better prepared to work with special needs and IEP students. Hard-working teacher candidates would also be able to help the regular teacher engage with more students in the classroom, since they would be there for an extended period of time.

In addition to using IEPs, schools also use behaviour support plans for 'behaviour' students. John, an elementary school teacher with over two decades of experience, noted that these are used most often for students who are extremely disruptive, put other students at risk, or are prone to violence or threats. Violence includes such things as kicking, hitting, swearing, threats, spitting, death threats or anything that is meant to harm. As such, some but most certainly not all students classified as ADHD may have a behaviour support plan. Behaviour support plans are a formal, team-based process, which is taken all the way up to the board level. This process involves documentation, meetings, and defining the behaviour problem; students with a history of violence get first priority for intervention via a formal behaviour plan.

Physical Space, Split Classes and Numbers of Students

There tend to be around 25-28 students in Sarnia elementary classrooms and it would be rare, but not unheard of, to have classes smaller than 25 students in grades above grades one through three (which are capped at 20). It is often assumed that classes split by grades (i.e., grade 1 and grade 2 students in the same class) are a problem. However, teachers felt that split classes could have both benefits and costs. No two split classes are exactly the same, and the level of maturity and co-operation of the students in the classroom can significantly impact the quality of the environment. Split classes can be really good for students with no problems, but can negatively impact the students who have difficulty focusing because there tends to be more going on. Jane pointed out that split classes can be a problem academically in some cases, especially for a student who struggles with ADHD:

> Next year the curriculum demands are going to be even greater because now these poor kids who already are in a classroom overwhelmed by sensory overload are going to be in a split class. The teacher has to teach, if you are a teacher in a seven/eight split the teacher has to teach grade seven history, geography, science, and grade eight history, geography, science. So if you are a child who can't focus and you are trying to learn your grade seven curriculum you are also going to be hearing the grade eight curriculum in your classroom, which is just going to, for some kids, cause huge problems. The onus is on the teacher, how am I going to make this work so that I can meet the needs of all my students and meet the needs of the Ministry of Education's curriculum. Really tough for those kids that are just absolutely overwhelmed. Split classes are a necessary evil. They are great for some people, not great for others. It depends on who you are.

In other cases, in large schools split classes can be utilized to separate groups of children with social issues (certain students simply do not get along with certain other students and splitting them up can be useful). These classes can also be used to disperse IEP students, to make the interventions more manageable for the teachers and EAs.

Split grades can provide a good mix of ages and personalities, and they also give older students a chance to interact with the younger students. When teaching a split class, a teacher can

structure the day so that the beginning of a lesson is addressed to the whole class, and then move on to address the curriculum required for the higher grade, and then be free to work with people after teaching directively. Donna described how she felt about split classes:

> A split class is not a big deal if you know what you are doing. I don't think I would give a split class to somebody who is in their first year right out of teachers college. Now when I was teaching, I am talking about, you could structure your day so that your math lesson (the beginning of the math lesson) took in the grade fours and the grade fives. The grade fours started their work, and then you continued with the grade fives and they took it the extra step. Then they did their work and then you were free to work with people. The curriculum, I don't know if you can do that now. I know that you teach this on this day, this on this day, this on this day and if they don't get it that's okay maybe they will get it next year when they spend a day on it. Or maybe they will get it the year after when they spend a day on it. There is no, you know, nobody really caught the value of *x,* trying to find the value of *x,* so we are going to go back over it again. And we are going to try it from another angle, and we are going to spend an extra day on it. You can't do that now. You have to teach the prescribed, it is all laid out, there is no room for wiggle. And I disagree with that. I couldn't teach like that, personally. I like to feel that everybody was at least with me before I went on.

This kind of teaching practice also allows the stronger students from the lower grade to engage with the more complex material and get more out of the grade five lesson than they would in a class of only grade fours, for example.

Sometimes classes can have as many as 36 students (this was the highest number cited by my participants). While the number of students is not *necessarily* a problem, many schools were not built to *physically* accommodate classes of this size. Christine told me:

> Our school, the building it has got to be 50, 60, over 60 years old now. And it feels to me like the physical structure, we have outgrown it in our needs. In a perfect world with unlimited money we would have more space to do all the best practices that are encouraged. The highest [number of students] I had was 33. This year and last year there were 24 which is so low, because I have had 30 to 33. There is a cap for primary under grade three can't be higher than twenty. So when that first came in I felt like it just sort of pushed the numbers up in grade four to eight to hovering around thirty. But the last couple of years it has been 24, 25, which I would really look forward to that because I feel like there is just so much more space. I sometimes feel like there are just so many desks to trip over. Students who, because of their learning needs, require assistive technology have a

> big table with a laptop, a scanner, a printer. Like it is a table honestly about this size [gestures to the kitchen table we are sitting at] in addition to their desk. This is a wonderful way to help them learn, but it takes up so much space. When you are encouraged to do daily physical activity and it is the middle of winter; when you are encouraged to do dance and visual arts and science experiments—all the things you want to do in the classroom, it just feels kind of claustrophobic sometimes with all the desks and all the tables and things. Space. I wish we had more space, but we don't.

Some schools tend to have smaller classrooms and less physical space. The result is that there is not much space for the students to sit, move around, do activities, etc. Students need some personal space, they cannot sit really close to someone all day and be expected to not have some kind of problem. This was widely noted to be an issue by teachers who experienced larger class sizes in smaller rooms.

Access to Technology

Technology in the classroom, such as iPads, smart boards and laptop computers, was seen as an effective way to engage students with *and* without attention problems. Teachers understood that contemporary students desire fast-paced learning and they want to be able to access things quickly. Technological aids in the classroom open up this kind of learning for students and allow them to avoid distractions and boredom. Emma, who worked in special education in a 'south end' school noted that there were computers available for children to dictate writing assignments,

> In my room [special education room] I sometimes work with kids on my spec-ed list that need to be doing writing or using a computer for whatever reason. I have five computers in my room, and they can use dragon [a speech dictation program] and they can dictate their work. And I can help them in my room.

My participants felt that teachers do not always teach in a way that corresponds to the students' way of doing things, for example, the over reliance on overheads and textbooks. Technology can be effective in fostering engagement in both behaviour students and students with no specific problems. Jane cited a creative example from a biology lesson:

> Some of them had no interest in it whatsoever. I wanted them to understand the parts of the cell, because that was a curriculum expectation for a grade eight student who may have no interest whatsoever in biology. I had one student, who was quite a behaviour problem, and I thought how am I going to engage this student to be able to do the task that I want him to do with the cell he has no interest in and has not really done a whole lot of work? I wanted them to create a city that would replicate the parts of the cell and how they all function together. So I said to him, 'so do you think you could create a city on Minecraft [a popular computer game] that would represent a cell?' He said, 'oh yeah I can do that!' All of a sudden I had half my class doing a Minecraft cell city because that is what they were interested in and it made sense to them. For grade eight it was a perfect way to engage them.

For Jane, this represented a great way to adapt, and to get both reluctant learners and identified ADHD children to be more engaged in the classroom.

Technology in the classroom is expensive. Rita commented on the importance of technology and the role parent councils play in fundraising:

> If you give a child who is distracted an iPad, quite often they will become more engaged in learning. In terms of the haves and the have-nots, it really depends on the parent council and how much money they have to fundraise. The interesting thing about that is, I have seen parent councils raise huge amounts of money in some of the lower social economic income brackets. Like I can think of one school, even though the families weren't wealthy they really were committed to the school. Whenever there was a fundraiser they had a really strong parent council and they had really good activities that brought in lots of money. The other thing is the board sometimes will do iPad projects and different things. They have dropped some of these iPads into some schools in the area to help engage the students. If you talk to anyone that is in those schools, it has had a really good benefit.

While there can sometimes be an unequal distribution of technological interventions, highly involved parents can improve access to these tools regardless of income. Teachers from Sarnia's lower class schools—lower class itself always a relative concept—note that parents at these schools can be very supportive and involved, which is perhaps contrary to stereotypical expectations about class and quality of parenting.

Language Ideologies and Symbolic Capital

Language ideologies conditioned how teachers ordered the linguistic style and reading ability of students in their classrooms, and students' home life was something teachers in my study felt was tied to school performance. Teachers felt that low social class, poor environments and lack of access to rich/stimulating materials at home drastically affected a child's ability to do well in school. So while teachers were talking about kinds of language (rich/complex vs. poor/simple), this talk ends up expressing ideas or expectations about kinds of people. Language ideologies:

> involve metalinguistics—language about language—and they may be either explicitly articulated or implicitly enacted. Language ideologies are central to the construction of identity because they are not in fact primarily about language. Rather, they are in the service of other, more basic, ideologies about social groups, which they cloak in linguistic terms. Beliefs that certain linguistic forms are the property of specific racialized groups, for example, are used to reinforce social divisions by means of linguistic divisions (Bucholtz 2011: 9).

The kinds of language which students encounter while at home, in school and during time outside of school formulate language repertoires which are differentially valued within the ruling relations of society. Language styles may play a role in how well some students perform in school, because different ways of speaking and writing have various amounts of symbolic capital (Bourdieu 1991). According to Bourdieu:

> The definition of acceptability is found not in the situation but in the relationship between a market and a habitus, which itself is the product of the whole history of its relations with markets. The habitus is, indeed, linked to the market no less through its condition of acquisition than through its conditions of use. We have not learned to speak simply by hearing certain kinds of speech spoken but also by speaking, thus by offering a determinate form of speech on a determinate market. This occurs through exchanges within a family occupying a particular position in the social space and thus presenting the child's imitative propensity with models and sanctions that diverge more or less from legitimate usage. And we have learned the value that the products offered on this primary market, together with the authority which it provides, receive on other markets (like that of the school).

> The system of successive reinforcements or refutations has thus constituted in each one of us a certain sense of the social value of linguistic usages (1991: 485).

The public school is an important space within which certain styles of language are rendered legitimate or illegitimate in relation to dominant or correct forms of language. I noticed that teachers devalued certain kinds of linguistic forms, seeing them as illegitimate and viewing them a kind of disadvantage. The idea that certain linguistic products are illegitimate is reproduced in the following excerpt from my interview with Jane, who felt that some students from disadvantaged backgrounds never heard certain kinds of language:

> I was teaching at a school where a lot of our kids came from very impoverished environments. Families where their parents had not been school successful and really didn't enjoy coming into school for anything. So we got the exemplars, this is what a level four piece of writing should look like. I looked at this level four piece of writing and the language in it was incredible, absolutely incredible. And I thought, my students would not ever hear this language because of the environment in which they live, because of the things they choose to do as extra-curriculars, because their only extra-curriculars are only going to be what is available to them right in their neighborhoods. Their parents didn't have the funds for them to be involved in organized sport as they would in some other school areas. I thought, if you send out these exemplars, it would be really nice to have, sort of, this idea of who is the student and what would be the socio-economic background of a student who would be able to produce that piece of writing? I am not saying that just because you come from an impoverished environment that you can't be academically successful, because you absolutely can be. What I am saying is, those students who come from those impoverished environments don't have access the same way as a student who has both parents who are in the medical profession or both parents are teachers, whatever the case may be. So they really do have a leg up because they are getting an environment, consistently, that is more at that level of what a four[4] would look like.

Teachers in my study articulated the idea that a significant number of children do not regularly encounter richer language—being read to, reading books, hearing certain kinds of speaking—at home. This discourse of differential access to 'rich' language, and its relationship with success, is tied to historically produced, hegemonic notions that define certain ways of speaking and writing

[4] In current grading schemes a level four grade is the relative equivalent of the letter grade 'A'.

as correct, and the "sense of value of one's own linguistic products is a fundamental dimension of the sense of knowing the place which one occupies in the social space" (Bourdieu 1991: 486).

The privileging of certain kinds of language over others emerges from the social realities within which discourse is produced. It is recognized in linguistic anthropology that "language is not simply a transparent reflection of speakers' inner states but a sociopolitical tool of ideological representation" (Bucholtz 2011: 14). Differences in the symbolic capital of dialects are racialized in the case of Standard English and African American English (AAE) in the United States (Bucholtz 2011). According to William Labov's work in the 1970s, "the preference of one dialect over another is one based on social, political, or economic factors—it cannot be based on linguistic factors because all dialects are equally logical and grammatical" (cited in Ahearn 2012: 225). In Sarnia's public schools, differences in the symbolic capital of various ways of speaking was more likely to be associated with variances in income, however, the notion that all styles of language are equally logical and grammatically correct applies.

In the context of my work, teachers used variance in the richness of language—both in terms of the kinds of language children hear spoken and the types of written language they have access to—at home as a way to remove the responsibility from the child. Similarly to how teachers used ADHD and 'behaviours' to negate moral evaluations of children's behaviour, the location of the stigmatized practice (not being able to read) was displaced from personal failings towards social inadequacies—in this case inadequacies of parents or impoverished people more generally. This kind of—probably unintentionally—patronizing language ends up maintaining certain kinds of language (which are continually re-configured as discourses change over time) as privileged objects in the education system, while construing other ways of speaking as inferior.

Moving away from this discussion of symbolic capital, having access to food, sleep and safety are all factors that affect a student's ability to do well in the classroom. Donna articulated some of these themes:

> I saw boredom because they weren't used to using their minds. I saw behaviours because of what happened at home last night. I saw behaviours because of what happened on the bus two weeks ago last Thursday, but today was the day they decided to deal with it. Kids at school have a whole myriad of stuff raining down on them on a daily basis. You kind of have to work through all that and sort it out and do the best you can with what you have got. They come to school tired and cranky because they have not had any sleep, they have not had any breakfast. I was speaking to a teacher friend, not long ago, and a little fella came to school and she looked at him and said 'you don't look very good are you okay?' and he said 'I spend the night in the park last night, my house was just a disaster, there were police and there were all kinds of things and I felt safer in the park.' This is a nine year old child who felt safer in a city park in downtown Sarnia then he does going home. Those kinds of things, absent parents, I don't want to say working parents, I was a working parent, but I think I was able to have some balance. Mine weren't very often left to their own devices and they will tell you that: they didn't have much freedom. But I think something like that is just a sad commentary on our time, when a nine year old child feels safer in a park in the south end of the city. I wouldn't go into a park down there at night, they're not nice places after dark.

Given this situation, it is not surprising that this child would struggle while at school. While this case is exceptional, it highlights the impact that a traumatic home life, violence and absent parents can have on a child's wellbeing. Likewise, this emphasizes that a child's experiences go well beyond the classroom and this should be taken into account when assessing mental health issues and behaviours.

The teachers in my study were quite aware of some of the structural forces that informed their positionalities as well as the positionalities of different students, while at the same time being unaware of other processes (like language ideologies). Karol, an elementary school teacher for two decades, and Margaret, a retired teacher who had worked in northern Ontario until 2011, both offered interesting insights into regional variance in educational resources. Education in

northern Ontario has not necessarily been tailored to address specific, regional factors, which reflects the centralization of power and control over educational practices and curriculum in the Ministry of Education (Martino and Rezai-Rashti 2011). In Ontario, standardization and centralization of educational governance do not necessarily translate to every board having the same resources, especially in regards to access to quick diagnoses of ADHD or developmental disorders. Margaret notes:

> And if you go into the rural areas, or up North, you know... sometimes the parents don't have the transportation, or the money, or the time to get their kids (to the doctor). Up North, like in Elliot Lake, they start at the Sault or Sudbury and then they end up on Toronto and not every parent can do that.

When she states that "not every parent can do that," she refers to differences in access to timely medical treatment that result from different economic situations. Margaret was concerned that northerners, who may be more likely to be impoverished than southerners, were expected to bring their children south for treatment—something many of those people could not afford because of missed work and travel expenses.

Economic class and income also emerged as important to some of the teachers in my study. Jane, for example, questioned the stability and quality of brand name versus generic medications. On the ability of a parent to consistently acquire medicine, Jane said:

> And I had someone [a parent] recently say they only buy them [ADHD medications] every week. And sometimes they can't afford to buy them monthly because they don't always have the money. So they are buying them a week at a time. And sometimes they are late getting the script or they don't have the money. So if you give a week of ADHD pills, skip a week, imagine what that is doing to the child.

This narrative highlights how a child who is not consistently medicated would be, in Jane's words, "all over the place" or "just messed up." This offers a glimpse into some of the kinds of fears held by teachers about the uncertainties of medication doses. A recurrent theme among

several informants was: are the students taking the medication every day? While teachers were unsure as to what the *exact* effects of inconsistent dosing were on children, they did note that there were significant behavioural differences as the children came on and off the drugs (such as before and after the Christmas holiday), from which they inferred that there can be health effects from uneven dosing.

Likewise, the generic forms of stimulant medications *could be* less effective than the brand name drugs. I say *could* because there is no literature discussing the differences in effectiveness of brand name vs. generic stimulants; however, issues have been reported in similar situations with many other classes of drugs. Medications used to treat ADHD were cited by the participants as being exorbitantly expensive and thus not available to every child—not everyone has extended drug plans/health benefits—they could cost anywhere from $150 to $300 per month depending upon the brand name and the strength of the dose. While no absolute conclusions can be drawn about class and medication access, the high price of these drugs brings issues of social class into focus.

Rita, a principal, noted that the rates of ADHD, oppositional defiant disorder (ODD) and other conditions were unevenly distributed throughout the schools in the city of Sarnia. Schools in the 'south end' tend to be less affluent when compared to schools in the 'north end' of Sarnia. After teaching for ten years in a 'north end' school Emma moved to a 'south end' school, putting her in a good position to offer insights about variations between these schools. Emma said that she thoroughly enjoys working with the south end, less affluent students and finds this very rewarding. Furthermore, Emma offered some very interesting comments about how parents made sense of their role in supporting a student:

> I really like those kids [south end kids], they don't have as much and can be quite appreciative. I remember thinking, the first time, this would be ten or eleven years

> ago, doing interviews at report card time. And you know, you have a kid struggling, getting C's and D's and the parents are talking to the student. *And it is not the teacher's fault, it is the student's fault*. 'You gotta pull up your socks,' or you 'gotta get working here.' Not that they were able to help them more, it was my job as the teacher to help them more because they couldn't. But they did not blame the teacher, it was the kid's fault. Whereas sometimes in a more affluent area it can be—it could be—[considered to be] the teacher's fault if there wasn't a good report.

Emma added later that many of these students did not have the same sense of entitlement which some of the more affluent students she previously taught displayed. Interestingly, Emma noticed that when the south end students did not do well in school parents were more likely to place the responsibility on the student. This was in opposition to her experience in the north end school, where issues with the students' behaviours were more likely to be blamed on the teacher.

Relationships and Communication with Parents

Teachers understand good parents as willing to help manage the child, as well as helping the teacher to find out what works for the child at home so that elements of this can be incorporated into the classroom. For example, teachers felt that it was important to find ways to gently suggest that parents try to incorporate more consistency and responsibility into a child's daily life outside of the classroom, such as having them consistently do homework or small chores before they do things they enjoy. Jane felt that because everyone went to school, people all have certain pre-existing notions of what school is or should be.

Sometimes parents did not want to listen to what teachers had to say. Dismissive statements from parents such as "my child is not like this at home" bothered teachers and were not generally seen as constructive. In some cases parents unfairly put all the blame on the teacher and failed to recognize that the home environment is different from the school environment. Children will often act differently at home than they do while they are in school. Participants contrasted highly involved, supportive parents and what they described as indulgent and entitled

parents. Most parents would follow through at home, and a call home was viewed as usually very helpful. Likewise, the vast majority of parents were perceived to want their children to do well, and many are quite knowledgeable, so it was seen as important to keep parents informed about issues as soon as arose. Commenting on her perception of parent support, Emma said,

> You could always count on support. That being said though, you better have all your cookies in line, you better be doing a really good job... because in an area like this [Sarnia] parents are very knowledgeable. So you better have everything... you just better know what you are doing. Have things documented—things like that, and a big thing is keeping in touch with parents from the very beginning. Don't just call the first time something happens. Have things documented and keep in touch with them on a regular basis. Make them feel part of a process right? It is their kids, the last thing you want is a call out of the blue when you think things are going well, and all of a sudden teacher calls and says this has been happening for a couple months. That is just not good communication. It is like anything, having a relationship. You have to have a relationship with parents. You have to have a relationship with parents as well.

Informing parents about what is going on with their children while they are at school can be a useful tool, but teachers agreed that it is important to avoid being directive.

Mothering Discourses and Single Mothers

According to Emma, parents in the south end were less likely to be able to support their children as 'students' (for example, they might not be able to help out with homework). Emma remarked:

> But I have noticed a change over the last six, seven, or eight years where teachers will complain and say 'well the parents aren't doing anything about it' or whatever. But I think they [parents] have a mindset that I send my kids to school, it is the teacher's job to teach them. If they have problems let me know about it, but you better teach them, I can't. I think that is a big difference. For the most part I think parents are quite supportive. I will listen to people a little more now saying 'those parents are not supportive' and I am thinking I don't think you really understand. I think they are supporting you as a teacher. You want them to support their kids as students and they cannot do that. If you want to keep them after school every night and work with them, they are all for that.

When I spoke to Emma and other teachers who voiced similar sentiments, they were negotiating discursive expectations about what parents are expected to do outside of school to support their children's education, while trying to acknowledge that parents may not be able to do the school work for a number of reasons. Expectations were informed by, and ended up reproducing, what Dorothy Smith describes as *the mothering discourse*:

> [the mothering discourse] was established in North America in the early years of the twentieth century by educational professionals and academics and promoted by a movement among white middle class women concerned with reorganizing the practice of mothering in relation to the new public school system. The discourse mobilized women to take responsibility for the health and socialization of their children and more recently the supplementary educational work in the home that would contribute to their children's success in school.... The mothering discourse, continually renewed, modified, and sometimes radically rewritten by the educational intelligentsia, has been a jet regulator coordinating mothers' work in the home with the work of teachers in schools (2006: 34).

Speaking of Canadian mothers with ADHD children, Malacrida adds: "One set of risks women faced was that of being perceived as less than good mothers. Mothers understood perfectly that they were judged, scrutinized and examined in the public and professional gaze when their children behaved in ways that were not perceived as 'normal'" (2001: 161). In my study, the most salient element of this discourse was the idea of supplementary school work, and teachers' concerns about this supplementary work not being completed outside of school, especially in poorer areas or at risk (in this context meaning single parent, usually single mother) homes.

In order to help make up for a perceived lack of supplementary work at home, Emma used homework clubs during lunch and after school times to help the students with their homework, offering an opportunity for them to receive extra help. The case of instituting extra help to make up for a lack of support is another instance where the mobilization of discourses of mothering and specific language ideologies ends up producing a range of practices (some of them helpful to the students). The balanced day now established in many Ontario elementary

schools brought changes to the structure in the school day, replacing the hour and a half lunch period with two 40-minute breaks. These smaller blocks of time were not as useful for providing extra help, so starting about seven years ago in Emma's case, most extra help was now offered after school as opposed to at lunch. Emma felt that teachers should not have to teach in the same way at every school. "The way I taught at [a north end school] was very different from the way I teach [at a south end school]". Furthermore, she said:

> It should be different. I don't think it should be the exact same way. I gave morning eye openers every day, I started with a problem. When I was out here, I had very bright kids, with good skill base. They would come in with good skill base. So I could put a problem up on the board and not everybody would get it. Some would, some wouldn't—the ones that got it could go around and teach the others. I did that same thing at [south end], did it work the exact same way? No. Some kids got it, fewer got it. But I also worked harder on giving them the basics than I had to here [north end]. We got in an era there where we seemed to have to do everything exactly the same. Every teacher teaching exactly the same way. It has been like six or seven years and it doesn't work that well, but I think people are starting to see that.

As in the previously discussed case of linguistic styles and symbolic capital, teachers tended to displace responsibility for a student's poor academic performance away from the student. There is a kind of discursive entanglement operating here as the mothering discourse (Smith 2006) is employed in teachers' evaluations and expectations of students, in which responsibility and blame for ability and achievement shift points but do not disappear. The responsibility of the student (or school) in fostering academic success is transferred onto the parents, and ends up operating in some cases in a somewhat patronizing way.

Furthermore, teachers seemed to appeal to a discursive archetype of an inadequate 'single' parent—read mother—which is tied up in old assumptions about the role of women and proper or normal family structures, again in many ways related to Smith's mothering discourse. People have an unfair tendency to be critical of the parenting styles of single mothers. Smith states:

> In our research, Alison and I discovered why, being single parents, we were defective as families in the eyes of the school. We were the kinds of family that did not have the resources needed to free women's time for the unpaid educational work that should be, from the point of view of the school, done in the home. We came to see that the educational work of middle-class parents in helping to reproduce their own employment status in their children is a piece of how class is organized intergenerationally through the public school system. Teachers' work in schools that cannot rely on substantial unpaid educational work on the part of parents have to put more classroom time into making up for what has not been done at home. Women's supplementary educational work done in the home contributes to the ability of schools in middle class communities to maintain high standards of schooling without increasing staffing levels. As single parents, Alison and I were seen as unable to make those contributions (2006: 37).

These ideas are reflected in Emma's previous comments about south end students not being as well prepared for school as north end students: "I also worked harder on giving them the basics than I had to here [north end]." While participants' ideas were entangled with discursive notions of proper mothering, Emma's previous comments demonstrate that perhaps the school expects too much, "I think they [parents] are supporting you as a teacher. You want them to support their kids as students and they cannot do that." Likewise, Christine pointed out that the use of homework is currently debated, commenting that there are some parents who would say that they want their children to be given more homework, and others who say that they cannot handle the homework currently being given. According to Christine, some students have parents who are unwilling or unable to help with homework. This gives some students, whose parents are able and willing to help with homework, an advantage over others.

In conclusion, while the second chapter of the thesis dealt primarily with how teachers made sense of bio-medical aspects of ADHD (diagnosis and medication) this second ethnographic section of the thesis builds upon this by exploring how teachers navigate ideas about inequality and various behavioural type interventions for students with ADHD. There are a wide variety of non-pharmacological interventions teachers implement in their classrooms which

have a positive impact on the success of both ADHD and non-ADHD students. Consistency throughout the day, maintaining order during transitional periods and the use of manipulatives were just some of the ways in which teachers modified their classrooms to improve achievement. This chapter also explores the various ways in which teachers used certain categories or discursive archetypes to displace responsibility away from the students in their classrooms. Teachers tended to focus on parenting style, family structure and the kinds of language the students encountered at home as ways of framing perceived disadvantage. While there is no doubt that teachers intended to avoid placing blame on the students, teachers' attempts to navigate ideas about inequality ended up being (to some extent) simultaneously positive and patronizing. For example, in my study the hegemony of the mothering discourse was maintained in teachers' talk, even as they try to open up a space outside of this concept— their dissatisfaction ends up being expressed within, and maintaining, existing power structures. In the next chapter, I work back out from my ethnographic data towards a discussion of some of the ways in which teachers flexibly interpreted curriculum and education policy in their daily practice. This fourth and final chapter incorporates teachers' ideas about standardized testing, inquiry based learning, and student engagement and connects these concepts up with a bio-political analysis of how of governance by numbers and auditing produce certain kinds of bodies in Ontario education.

Chapter Four: Governance and Interpretations of Policy

Curriculum and Engagement

This fourth and final chapter orients my ethnographic data within a biopolitics of numbers. My first chapter evaluated how bio-social processes make up classifications (ADHD) as they are continually appealed to in everyday practices. The second and third chapters focused on how teachers made sense of and participated in the production of ADHD bodies in the classroom. In this final chapter we arrive at a discussion of governmentality and auditing, both of which concern how bodies are ordered. Governance links up quite well with my earlier discussion of embodiment largely because governmentality and bio-politics originate in bodies and an intensification of interest in population statistics. Contemporary Ontario education policies have been informed, directly or indirectly, by the increased salience of ADHD and related 'behaviours'. Appealing to these categories to order experiences of everyday practices maintains a discursive field which makes certain bodily realities, and ways of being governed, possible.

Auditing and governance by numbers play an important role in education policy and practice. Aspects of Ontario Ministry of Education policy, such as inquiry based learning and standardized testing, will be discussed and integrated with the ways in which teachers interpret policies in their work activities. While I was talking with my participants, several policy-related themes emerged; teachers worried about how Ministry of Education policies may impact both ADHD and other students in the classroom. Changes like inquiry based learning and rigid standardized testing were both significant concerns for the teachers I interviewed. As discussed at length in chapter one, ADHD represents a constellation of contextually contingent biopolitical subjectivities. Biopolitics allows for contemporary Ontario education policy to be oriented within

century-long historical processes which have produced understandings about health within a framework of numbers about health.

Ideas about ADHD inform curriculum and education policy through increased emphasis on encouraging engagement and interest in classroom activities. When I asked Christine how she would approach managing the kind of off task, chatting, or distracted behaviours that an ADHD child may display, she brought up the issue of engagement:

> Ideally, if the students are engaged, we try to think of interesting learning activities. We don't always achieve this, not everything is interesting, not everything is interesting in real life, in your job or in your studies. It is not always fun. Engagement is maybe the biggest buzzword right now in the school board. Student engagement.

Engagement and ways to keep students interested in the curriculum were important topics for my informants, a reflection of engagement's importance at the school board and Ministry level. Student engagement is highly dependent upon teaching style, materials, and various kinds of special programming (several people brought up the idea of specialized music or art programs). When teachers rely solely on textbooks and overheads students will be more likely to be bored and act out, whether they have ADHD or not. Teachers in my study noted that oftentimes it could be hard to tell whether a child was bored, had ADHD, was hungry, daydreaming, or upset from something that happened at recess or the night before at home.

Teachers felt that they needed to take a serious look at how they engaged students in their own classrooms, for example, investigating what the best elements of their teaching practice were and asking the students what they needed to be successful. Several teachers felt that generally teachers do not listen to children enough or give them enough of a voice in their own education. Some teachers felt that seemingly every time there is a new provincial government, there is a substantial change to the curriculum. One argued that the government cannot leave the

curriculum alone because that would admit that the previous government had it right. And while changes to the curriculum are not in and of themselves problematic, my informants felt that instead of relying upon a group of teachers to choose curriculum it is instead handed down from outside 'experts' and is too verbose and inaccessible—a function of the rationalization of education and increased attention to auditing and governance by numbers.

Inquiry based learning is another new buzzword in contemporary Ontario education. It is a kind of modified whole language program with an emphasis on activities which lead students towards discovering knowledge. The idea is to take a topic and engage the students so that they can help come up with questions about a topic and then find novel answers to these questions. The students can solve problems in a more dynamic, group-based environment. In theory, this creates a more engaging environment for the students and helps keep students with difficulty focusing on task. Inquiry based learning also emphasizes embracing new ways of solving a problem.

The inquiry based curriculum involves a significant learning curve for teachers, Emma commented:

> Maybe teachers are the stumbling block a bit because we do a ton of that in math. Where the idea is you just give a big math problem and kids work in groups and they try to solve it. And then you all come back and everybody shares and that is what we do. I think as teachers we are the stumbling blocks somewhat in that we give these problems, yet the kids don't have the skills to solve them. We look at it and think the half dozen that do have the skills, they do all the work and the other kids sit around and don't do it. So I am not sure we think it is working. I get the idea. It is a great idea. That is how society is, it is all problem based. But in our area it is really a struggle to get everybody to buy into it—to get the teachers to buy into it. It is probably one of those things we will just have to see. The problem arises though, if we take that wait and see, we could lose a whole generation.

My participants noted that a sizable number of teachers are *married to manuals,* or heavily reliant upon pre-made slides and textbook pages. My participants felt that this kind of teaching

was not good teaching, and encouraging more engaged and flexible teaching practice is a possible benefit of inquiry based learning. The school board allots 1500 set learning minutes, half of which are assigned to the teaching of critical literacy skills. This is core, direct teaching of basic literacy and math skills. In Ontario, the Education Quality and Accountability Office (EQAO) conducts standardized tests in the third and sixth grade in areas including reading, writing and mathematics. There has been a significant Ministry push to improve core literacy and math skills in order for students to do well on the EQAO tests.

The effectiveness and usefulness of inquiry based learning was not something my participants agreed upon—some teachers (especially younger teachers) thought that this was a superior way of teaching, while others (especially older teachers) were less convinced that this was the best way to approach teaching. There were mixed feelings about the emphasis on understanding and application versus the learning of certain core skills. Older teachers and retired teachers did not tend to think that inquiry based learning was effective, and were in favor of teaching phonics, spelling, multiplication, addition and other basic skills. The basic position of these teachers is that you cannot solve complex problems if you do not understand the basics. For example, in math you cannot solve a long division problem if you cannot multiply. Mike, a high school math teacher for close to three decades, added:

> I think their [math] skills aren't [as good now]—because the curriculum has changed—15-20 years ago there was more 'drill and kill' they would call it in math. They got tons of questions so they got really good at algebra, really good at integers, they were really good at those things because they did tons of it and drilled it. Now in math there is more emphasis on learning how to problem solve, which is good stuff. You want to learn how to communicate your answers, that's good stuff too. I hear complaints from fellow math teachers who are also parents of elementary school kids. The kid knows how to add—we don't have to *discover* 20 different ways to add numbers together. They know how to do it, let's get them to develop some other skills. Sometimes that inquiry, investigative approach goes too far.

Younger teachers, and teachers of younger students, were in favor of incorporating inquiry based learning into their lessons. The younger teachers viewed inquiry based learning as a positive change to the curriculum. Christine said the following about the some of the positive and negative elements of inquiry based and group learning:

> I was at a math workshop Wednesday, all day long, with other teachers doing problems using math manipulatives. Using physical, plastic pieces to solve problems. I felt like I was getting the experience of being a student working in a group. I worked with a teacher who is a good friend of mine and, it is the same challenge—I think it is wonderful—there are so many great opportunities to work together. There are some kids who love to work together, there are some kids who excel working together. But of course, there are some students who prefer working alone. I wonder if some students might get lost in the group. My friend did two of the problems ahead of time and I didn't understand one of them because it was something I had never seen before, but she did it and I saw myself looking at her sheet to see how she did it, without learning it myself. Talking about inquiry learning, I think it is wonderful for some students. I think it is a great life skill, collaborative working. But based on everybody's strengths and what works for everybody, there is not one system that works for everyone, and with anything [inquiry based learning] has some challenges.

Older teachers also pointed out that education policy can be circular, and that in the early 1970s educational policy advocated for a similar kind of teaching practice to inquiry based learning, known as discovery based learning, which later fell out of favor. According to Donna:

> The discovery method, it was also around in the late sixties, early seventies. The education pendulum swings back and forth. I forget what, it had a name, it has escaped me 'the something' project. They decided that they needed open classroom space, like Rosedale school, High Park school were built with areas called pods. In the pod there would be four, maybe five classrooms all set up. So everybody was all teaching at the same time, and working at the same time in the same room. It was supposed to, if the grade fours were finished or needed extra stimulation, they could listen to the grade five teacher and maybe pick up a few extra clues there. It was a wonderfully funded system--that I was very happy my children did not get into. My personal children. I don't think they'd have wanted me in a pod. My voice is just, my speaking voice is just way too big for something like that. They no longer have them [pods] they closed them down, they put up walls. They rebuilt, they did all kinds of things. What seemed like a good idea at the time crashed. I think that's what will happen with the inquiry based method, they are reinventing whatever this project was called, I forget... I wish I could remember that. I think it will come to the same end. We will wind up

> with a group of kids that, if their parents have not sat down and said, 'you need to learn the two times table, you need to learn how to spell, how to conjugate this verb, you need to whatever, we will have a lot of kids that are standing there—because you can't fail them, but they won't have anything to base anything on. They will have picked up very little. I teach art in the schools. I volunteer, I usually do landscape painting, but if they have a theme I will do a theme with them. I was in a grade four/five class and we were making cartouches, they were studying ancient Egypt, I had them—the paper was already cut—but they had to round the corners and they had to measure a border and divide the length by the number of letters in their name: they could not divide by the number of letters in their name. This is a grade four/five class.

Some teachers were unhappy with the lack of knowledge being taught to children in this system. Teachers felt that there were too many students unable to do basic multiplication and other simple mental math without the use of a calculator. Being unable to do basic multiplication and division severely limits a student's ability to do relatively complex math required in the high school curriculum, such as factoring and quadratic equations. Additionally, handwriting is no longer something that is taught on its own, but rather it is taught in conjunction with other elements of language. These previously discussed factors can be a source of frustration among teachers and make it harder for them to find a good fit at a school or at a particular grade level.

While this curriculum discourse places significant emphasis on being open and engaging, other elements of policy are highly constraining on teachers. Current education policy is weakened by contradictions across the policy-scape: the most significant of these for teachers is the misalignment between inquiry based learning and EQAO standardized tests (one being an open, adaptive teaching strategy, the other being closed and rigid). These two elements of policy, along with their related mandates, practices and rules produce friction because they require teachers to work toward conflicting goals. Further, no teachers thought that standardized testing was useful for the students in their classes.

The curriculum itself was viewed as rigid and constraining by many of the teachers in my study. Unlike in the past, current policy does not allow much room for a teacher to spend extra days on things a group may be struggling with because they need to teach the prescribed lesson/information on each day. There is not much room for adjusting plans, and several of the older and retired teachers in my study said that they would not be able to teach like that, because they preferred to make sure everyone understood a certain element before moving on.

For example, math builds on itself and you cannot learn division if you cannot multiply. So moving on to division before everyone has time to learn to multiply tended to be seen as counterproductive. Unfortunately, when a child falls behind in an area and the teacher has to move on it is left to the parents to teach the students these skills. In this way, if parents are unwilling or unable (for a variety of reasons) to help the student learn certain things, the student will invariably fall behind and get frustrated. Emma noticed that a lot of parents cannot do the math homework, for example, and many 'south end' parents cannot afford to pay for tutors, so the students end up being left behind:

> The curriculum is demanding, I am not saying too demanding. But it is demanding more so where I teach now [the south end]. I mean up here [north end] if kids don't do well in something you can afford to get a tutor, not a big deal, you get them a tutor. In my area if the kids can't do something, the curriculum is compressed and flows quickly. We are sending home math to do that the kids aren't getting because we go through it too quickly. We don't put enough emphasis on the basics. And when you are going through it that quickly, teachers will send homework home that the parents can't do. So the kids get deemed 'they aren't doing their homework, that's why they are not doing well'. That is not really the case, there is nobody really there to help them with it.

It is concerning to think that there is potentially a group of children who, if their parents did not teach them certain skills, will not understand basic skills required to succeed later in life, both academically and in some everyday tasks such as balancing expenses.

On a related note, participants felt that special education in Ontario has changed drastically since the early 1970s, into the 1990s, and on to today. Donna recalled that in the 1970s special education classrooms were segregated by gender and level of the student, as opposed to the more 'mainstreamed' classes of today. Also reflecting on changes to special education, Emma said:

> That is a role that has changed. When I started 31 years ago I would take kids out of the classroom and work with the ones who were struggling. I would do phonics work with them to help them read. In grade eight, I pre-taught their math lesson, so if they struggled in math I would take a little group (four to five) and pre-teach the lesson to them. Then they knew exactly what was going on. And I think back to the amount of work they did. They did work for me, plus work for their teacher. It was amazing the amount of extra work. I would give them pre-tests and they would have a test two. And here I am 25 years later in the role again. It is huge, huge paperwork. But because I am at the end of my career I kind of fight that. I am able to do paper work at home and see kids as much as I possibly can. But on average I would say teachers see kids maybe half the day and the rest is filled with paperwork. But in that role I do numerous things. I support a classroom. So I may go into a grade eight classroom and I will have my spec-ed kids in there and they are doing a modified program. So they may be in a grade eight classroom and doing grade five work. I will work with the teacher to set up their program, to set up their expectations and then it is up to the teacher to find the work that is comparable to that. Now I usually will find worksheets and things with them. These kids are usually working on their stuff at the back. So when I am in the classroom I will usually go around the room because you don't want to make these kids feel like they are centered out right? In another class I may go in and support their writing, sit down with a kid and write with them if they are doing their writing at that time. I still withdraw kids, which I know we are not supposed to do a lot of the time. But I have kids that are in grade four/five that can't sound out a word or make the 'a' sound. For me it doesn't make sense to have them sit in the classroom doing a writing assignment if they cannot read. So I will do phonics with them to help them read.

The role of the special education teacher is highly diverse and the teachers tended to work around policy in order to help children learn, such as removing a student to teach them phonics to help them read, a skill that will be useful throughout life. When possible, special education teachers would work with students who performed well below grade level to help them succeed in basic, everyday tasks which they would need in order to live independently. These skills

included reading the labels on food or being able to do basic math to balance expenses or pay rent.

Reflecting on her earlier experiences as a special education teacher in the early 1990s, and her recent return to the role, Jane noticed that the curriculum has changed such that the demands are higher on the students:

> The curriculum has changed so that the demands on our kids are much greater as well. So I think that having done it [taught special education] and then going back to it after all these years, and having classroom experience—the only grade I never really taught is grade two, and now you go into resource and you know what the demands are. I think it is going to be different for me. I want to spend more time with the kids that need support, rather than doing paperwork. I don't think that paperwork really helps the kid. They don't even know the paper exists. All they know is that they are sitting in a classroom and they can't do it. That's all they know, and then sometimes they act out. And that is when you get the behaviours.

These factors can translate into higher demands on classroom teachers. Additionally, the age when certain information is taught to students has been pushed down, for example various aspects of cell biology formerly taught in high school are now taught starting in grade 8. The demands of the curriculum have been especially impactful for the students who used to get by with C's—for these students expectations can be totally unmanageable, and this puts them at increased risk for behaviour problems.

What is written in policy tells us one thing, what people do tells us something quite different. Teachers can, and do, choose which aspects of policy and curriculum they take up in their work. The most rigid, and thus the most constraining elements of policy—especially standardized testing—are seen as the most problematic. However, teachers cannot choose to avoid the EQAO test. The test happens at a set point in time and a certain body of knowledge needs to be taught by this point. When teachers are being told to allow children to learn through inquiry, but these same children are being evaluated in a rigid manner, this creates tension in the

classroom, especially for the students with IEPs. Perhaps the most poignant statement made concerning how we should think about curriculum was John's statement, "I don't want to teach curriculum, I want to teach children."

Governance, Statistics and the Power of Numbers

In chapter one, I discussed the ways in which ADHD comes to be made real as a product of people continually appealing to the classification. This chapter adds increased historical depth to this genealogy by taking into account state attention to population health concerns, which is deeply entangled in the emergence of statistical sciences and modern medicine. Over the course of several centuries bio-medical classifications became the primary way in which we 'order' bodily phenomena, including mental illness. Foucault's (2003) conceptualization of governmentality emphasizes the importance of numbers in the definition of biopolitical classifications. Oftentimes this refers to the technicalization or rationalization of state *population* concerns such as health and education (within which ADHD has come to occupy an interesting place).

Foucault (2003) locates the emergence of state interest in population in the eighteenth century. The fields of power in which governance is invested have been shifting for centuries as new 'kinds' of people and populations come into being through classification: "population is not an observable object, but a way of organizing social observations" (Curtis 2002: 24). In this sense, population is not an object 'out there' but rather a kind of 'artifact' created through the practical effects of prosaic state processes (Painter 2006); fundamentally *population* is "both an artifact and a field of the exercise of state authority" (Curtis 2002: 25).

The concept of governmentality allows for a discussion of how population emerged as the target of so-called 'modern' state (and often non-state or quasi-state) governance. The science

of government, or political economy, allows for the governance of specific problems of 'the population' (Foucault 2003). Attention to the population as an aggregate object results in the emergence of new 'relevant kinds' as various population level problems, formerly the domain of sovereigns or the family, came to be targets of state power: "prior to the emergence of population, it was impossible to conceive the art of government except on the model of the family, in terms of economy conceived as the management of the family" (Foucault 2003: 240). Hacking's (2000) discussion of kinds adds another dimension to this conceptualization of population and categories. Hacking insightfully defines what he means by 'relevant kinds':

> there can probably be no general theory about selecting kinds. There are many types of kinds, and no one has done more than Goodman to remind us of this. Yet although he regularly writes of 'motley entities,' even he tends to put all kinds into one basket, precisely to de-emphasize absolute priorities and to emphasize that artificial kinds are as important to us as the kinds of things we find in nature. There is no harm in using one big basket tagged 'relevant kinds.' A basket is not a food processor that annuls difference (2000: 129).

Population is an 'artificial kind' as opposed to a 'natural kind'. Furthermore, relevant kinds are habitual or purposeful classifications, or in the case of 'the population', purposeful (it renders 'things' on an intelligible grid, creates governable bodies) and habitual (the realness of 'the population' is made via its practical effects).

The emergence of ADHD as a salient classification in contemporary education was made possible by early processes of state formation which first produced population (and its health) as an object of governance. Related to the emergence of the science of probability, also a historical process (Hacking 1975), population was historically produced as both a datum and a target of intervention. According to Foucault:

> population comes to appear above all else as the ultimate end of government. In contrast to sovereignty, government has as its purpose not the act of government itself, but the welfare of the population, the improvement of its condition, the increase of its wealth, longevity, health, and so on; and the means the government

> uses to attain these ends are themselves all, in some sense, immanent to the population; it is the population itself on which government will act either directly, through large scale campaigns, or indirectly, through techniques that will make possible, without full awareness of the people, the stimulation of birth rates, the directing of the flow of population into certain regions or activities, and so on (2003: 241).

The application of the science of numbers and statistics in the 'art of government' (c.f., Scott 1999)[5] allowed for the use of censuses which have been central in the reification of the population into an object assumed to have intrinsic, aggregate effects. For Curtis, "censuses are not 'taken,' they are *made*. They are made though practices that do not simply reflect but that also discipline and organize social relations" (2002: 34).

As discussed in chapter one, as bodily normativity came to be conflated with statistical normativity, *normal* was understood as a function of the mathematical normal curve. Normal came to be defined via the bell curves of statistical surveys of populations, in which normal is often seen as a lack of difference, an absence of pathology. In the same way that people's use of ADHD in everyday life produces and changes ADHD, statistics about ADHD operate in a similar (and equally complex) manner. Facts and numbers about ADHD are produced by people: as they identify as ADHD, talk about ADHD, statistically study ADHD, work on the development of a new drug to treat ADHD, and so on.

Governance and policy are always historical and cultural processes (Corrigan and Sayer 1985); the kinds of numbers used in the production of historically transient mental illnesses like ADHD are categorically similar to those used in censuses—they differ in scale, not form. As such it can be argued that the production of medical categories, like

> census making is itself a practice of state formation, an assertion of sovereign authority over people and social relations. It seeks to tie people as state subjects

[5] Alternatively, see Scott 2009 for a case study in how this kind of governance has been avoided through various kinds of 'friction' and the avoidance of formal state intervention.

> and citizens to official identities within a determinate territory in order to rule them. It does so through the disciplining of social relations and the centralization of knowledge (Curtis 2002: 36).

With the emergence and use of formalized statistical measures and censuses the scope of educational/bio-medical governance continues to create new relevant kinds of people as older kinds of people cease to be relevant objects (Hacking 2000). This is reflected in the way in which the teachers in my study conceptualized boys as at risk of certain problems, such as reading issues, ADHD and behaviours. There was an important silence with regards to girls having these kinds of issues.

The way in which new relevant kinds come into being through prosaic state practices demonstrates the elasticity of state power. In order to conceptualize how state processes and governance are always present in everyday experience, Painter conceptualizes the idea of prosaics, which refers "to the intense involvement of the state in so many of the most ordinary aspects of social life" (2006: 753). The concept of prosaic practices allows for the expression of the "heterogeneous, constructed, porous, uneven, processual and relational character" (Painter 2006: 754) of the state. State processes as prosaic emphasizes that the state is not a 'thing' or a unified, intentional subject, but rather a hodgepodge of actors, institutions and fields of power. In the case of education, for example, the state institution is constituted by the participation of a range of actors (politicians, administrators, teachers, parents and students) in a complex range of activities (instruction, games, teaching, testing, auditing and funding).

Likewise, according to Corrigan and Sayer (1985), domination and subjectification are not simply functions of economic structures, super structures, or ideological false consciousness. State formation must be conceptualized as a historical process of cultural revolution which regulates the formation of deeply-felt identities and subjectivities—not simply ideology.

Everyday state practices allow certain classifications to emerge at certain points in history, and at the same time makes other classifications unthinkable, and therefore, not possible. Because ADHD is a new classification it continues to be fairly flexible and opens up certain kinds of governance.

Classifications and subjectivities deemed normal are constituted within cultural fields of power:

> classifications evaluate who is troubling or in trouble. Hence they present value-laden kinds, things to do or not do. Kinds of people to be or not be. Partly because of implied values, people sorted under those kinds change or work back upon the kind (Hacking 2000: 131).

Classifications and subjectivities which are considered to be normal function as powerful productive (and oppressive) structures because many people desire to be normal—and being normal tends to produce pleasure. Furthermore, a desire to be normal is not simply an internal process, but rather it is always interacting with processes outside of the individual body. In this way, discourses and the material effects produced by these fluid systems create a sphere of consensual power through which people govern themselves. That it is so terribly difficult to think that normativity is an ideological device, and that people's embodiment of normal works back into reconfiguring and maintaining the 'kind,' is a function of its hegemony.

A culture of governance which rests upon auditing, evaluation and standardized tests dominates the policy and practice of aspects of education policy, curriculum and teaching in Ontario. A significant amount of resources, energy and time are put towards preparing for, administering, and intervening based on the results of these standardized tests of classroom achievement (Martino and Rezai-Rashti 2011). This kind of formal governance through numbers manifests in a variety of educational contexts around the world including China (Kipnis 2008) Australia (Lingard 2003) and the U.K (Rose 2010; Lingard 2003). In this case numbers,

> in conjunction with the human sciences establish a 'regime of visibility' and 'a grid of codeability' for creating a navigable space of commensurability, equivalence and comparative performance, thereby rendering the population amenable to administration, statistical mapping and governance (Martino and Rezai-Rashti 2013: 4).

In a variety of education systems there is an emphasis on the improvement of the quality of education, "making its system of performance audits 'scientific' is part of this effort" (Kipnis 2008: 279).

Far from being straightforward or having the consequences intended by policy makers and managers, the practice of auditing often ends up shifting focus from the original target of improving quality or reducing cost towards auditing for the sake of auditing. Additionally, auditing can end up changing the thing being audited: "performance audits clearly often result in social effects that totally contradict the ones they are supposed to achieve" (Kipnis 2008: 285). The gathering of data comes to dominate the practice of government, with the material effect of actually reducing the quality of what was being monitored in the first place—a common example of this is the modification of the curriculum being taught in schools to improve performance on standardized tests. According to John, standardized testing in grades three and six has changed the focus of education in Ontario schools. John, and other teachers in my study, felt that standardized tests shift education from being student centered towards an interest in performance on the tests. John also felt that students with ADHD, who are given nominal (and poorly designed) support on tests, tend to do poorly in these high pressure situations in which the structure of the classroom is disrupted. These processes were also noted in Kipnis' (2008) case and have been widely reported elsewhere.

The degree of auditing and governance by numbers in the province of Zouping in China represents an extreme case (Kipnis 2008). All students in every grade level take standardized

tests in every subject twice a year, that are similar to but more comprehensive than the EQAO tests used in Ontario. These numbers are used to evaluate and compare teachers in the region based on the results of their students on these standardized tests. Furthermore, the classrooms "may be observed by personnel from the county education bureau at any moment" (Kipnis 2008: 276); the teachers often complained about the constant evaluation and highly competitive environment produced by auditing. Similar complaints were voiced about EQAO tests by teachers in my study. Teachers viewed standardized testing as stressful and anxiety provoking for their students. According to Karol, the way in which teachers interact with students is restricted by the tests. She felt that while you could normally help a student who is struggling to get on task or help them work through questions to come up with an answer, the teacher cannot do this during a standardized test. This can be especially problematic for ADHD students who have trouble focusing and are used to the supports that are usually provided for them. During the tests, the physical structure of the classroom is rearranged. For example, if the students are used to sitting in groups and working together to solve problems, sitting them alone in rows and having a much quieter environment can be jarring, especially for children with ADHD. Karol notes that under these conditions, some of these students will "shut down".

Kipnis (2008) points out that while the Chinese case he analyzes is extreme, similar regimes of accountability have been criticized by American anthropologists discussing U.S education policies, such as George W. Bush's "No Child Left Behind" initiative. This American policy has some interesting discursive similarities to Ontario's current legislation, including an emphasis on inclusion and diversity, while it similarly ignores systematic structural inequalities. For example, in Ontario documents, boys are lumped in with immigrants, low social class, and aboriginal status:

> Our government is committed both to raising the bar for student achievement and to reducing achievement gaps. Recent immigrants, children from low-income families, Aboriginal students, **boys**, and students with special education needs are just some of the groups that may be at risk of lower achievement. To improve outcomes for students at risk, all partners must work to identify and remove barriers and must actively seek to create the conditions needed for student success. In an increasingly diverse Ontario, that means ensuring that all of our students are engaged, included, and respected, and that they see themselves reflected in their learning environment (Ontario Ministry of Education 2009: 5, emphasis added).

Representing achievement gaps in this poorly desegregated fashion operate to displace attention away from systematic inequalities, while rendering all boys as at risk. In the Ontario policy document *Me Read, No Way!* (2010), the results of EQAO tests contribute to (and originate in) ideas that boys are at risk. In *Me Read, No Way!*, EQAO test results are cited:

> The results of assessments administered to students in Grades 3 and 6 show that boys do not perform as well as girls in reading and writing. (The results for mathematics do not show similar gaps.) The results of the Ontario Secondary School Literacy Test (OSSLT) also show that boys do not perform as well as girls in reading and writing (Ontario Ministry of Education 2010: 4).

Again no specific numbers are given, nor are the statistics desegregated in terms of factors other than gender, reminding us that we need to be cautious when making use of statistical information. As Hacking points out: "[statistical studies] exemplify the role of statistical technology in the legitimation of the passions—not 'garbage in, garbage out,' but 'beliefs in, beliefs out'" (2000: 137). Numbers matter in the state processes which produce and monitor educational policy, whether they are explicitly cited or not—and whether they are valid or not.

The EQAO test results cited in *Me Read? No Way!* (2010) do not include disaggregated numbers of boys and girls performing at each level of achievement or (perhaps more importantly) *which* boys and girls are performing at various levels of achievement. In this way, as Nicholas Rose (2010) has pointed out, numbers operate as a kind of 'black box' which maintains the power of ideological processes and systems of governance (see also Curtis 2002).

The 'knowledge' generated by standardized tests is a kind of reflexive knowledge which is "shaped by the conditions of its own production and is not simply a reflection of pre-existing conditions" (Curtis 2002: 35).

In the case of Ontario education, governance is carried out through various technical processes, such as: standardized tests (EQAO), surveys of achievement, and more general evaluations of performance (tests and assignments). In this way, all aspects of social life related to education are in some way inter-related with political institutions and state processes of rule. When discussing education practice and policy it is important to remember that, as Painter so articulately states:

> passing legislation has few immediate effects in itself. Rather, its effects are produced in practice through the myriad mundane actions of officials, clerks, police officers, inspectors, teachers, social workers, doctors and so on. In addition, the act of passing legislation in the first place also depends on the prosaic practices and small decisions of parliamentary drafters, elected politicians, civil servants and all those who influence them, including journalists, electors, letter writers campaigning organizations, lobbyists, academics and others. Thus the outcome of state actions is always uncertain (2006: 761).

Instead of giving us a conclusive statement about how policy 'works' in the everyday practice of embodied subjects, Painter (2006) challenges us to think about aspects of social life that would otherwise go unconsidered.

Ontario education has undergone significant restructuring since the Harris provincial government in the 1990s (Martino and Rezai-Rashti 2011). Following the Harris administration, processes of educational policy development in Ontario are increasingly informed by a system of accountability and high stakes testing. Jane felt that the curriculum is more demanding today than it was prior to the Harris government. She said,

> Since Harris came in, dramatic change. Well you would have gone through it, but you guys [referencing children born 1990-1992] were young enough that you went through it the proper way. It changed and you guys were only in grade two

> or three when it came in. Whereas older kids, they cut out grade 13 and if you were in grade eight that year you went into grade nine. I think that those kids for the first four or five years they really got screwed. Because, math in particular, what you were doing in math in grade eight math to what you were doing in grade nine math was a huge jump (Interview, July 2014).

Ontario high school continued until grade 13 until the Harris administration eliminated this grade in the early 1990s. The removal of grade 13 from the Ontario high school system played a significant role in making the curriculum more demanding (especially on students in high school at the time) because it pushed the age at which certain knowledge needs to be internalized down. Jane notes that boys tend to mature later than girls, and for a long time they could "screw around until grade 11," but the removal of grade 13 meant they could not do this.

Likewise, auditing has changed special education practice. In the 1990s special education teachers tended to spend more time with the students than doing paperwork, a role which is currently reversed. Special education teachers currently do a lot of paperwork and are less and less in the classroom. Jane, who is moving back into a special education role added:

> The special-ed teacher does a lot of paperwork. They are not as much in your classroom as people probably think they are. I think it depends on the special-ed teacher. I think that some are probably more in the classrooms and working with kids, and I think that in that role, I am looking forward to working with kids in the classrooms one on one and get a greater sense of what it is like for them trying to function within that environment. In some cases there are 28 kids in the class, sometimes more, sometimes less, but very rare that there is less. So the teacher's time is so divided that if you don't have the special-ed support, then how do you really focus on what does work for those kids? Because when you get an IEP, and you do the IEP with the special-ed teacher, they put all these strategies on there. Things like, you are going to give them a computer to work with, you are going to give them more time to do their work, you are going to give them manipulative to do their math, and all of these things. But you might have ten kids with an IEP in your class, and you might have a class of 28 kids. So you are supposed to be looking at what strategies are actually working for those kids. I don't think that a classroom teacher can adequately do that, everyday, for each student if they have that many.

Special education teachers can get tied up between administrative work and classroom work. In order to gain access to interventions and resources, instances of behaviour problems and underperformance need to be rigorously documented. It was often noted that a good principal will take on much of this more administrative work, leaving the special education and classroom teachers with time to do their jobs, but this did not always happen in practice.

The everyday practice of auditing, monitoring and achievement testing has created significant problems for the education of children. Another significant change in Ontario education has been the idea of inclusiveness, which involves keeping as many students as possible in the regular classroom, as opposed to segregating them into special needs classrooms. This has some significant impacts and creates complexities in terms of special education; for example, there is no point helping a student to work on the writing assignment which the rest of the class is doing if said child cannot *read*. The notion of the inclusive classroom means that students who might previously have been separated from their peers if their needs could not be met in the regular classroom, are now included in mainstream classrooms. In Ontario education policy there is an ideological 'concern' with ensuring that everyone has equal opportunities and that everyone be provided with the means necessary to succeed—something which the teachers in my study felt did not always work well in practice. Emma and I talked about inclusion, and she told me,

> Inclusion, I think that it is a problem... well I shouldn't say that—it is 50/50. Some kids, it has benefited. There is a huge dependence on the teacher. If the teacher is willing to go that extra mile. In a classroom with 26 kids and you have four or five behaviour problems, three or four kids that are working below grade level it is not easy to do all that. I am an experienced teacher, and I say that having a class that is very similar to that about six or seven years ago. Toughest class I ever had. I had three kids working at a grade two level and five behaviour problems. I mean, I am not a person that really thinks about stress, but I was nuts every day with stress. I was thinking I have twenty four years in, put a new teacher in that situation. Extremely difficult to think that a teacher can be everything to every

> kid. It is lovely to say but it is really an impossibility. Even though I lived and breathed it for a whole year. Burnout rate would be... wow. I would be done in five years. So does inclusion work? I think it works socially for some of the kids. Academically? We just graduated a grade eight who can't read a thing. We got him at about the end of grade five, he had been moved around between a lot of schools and came to our school unable to read. And I worked with him as much as I could, with another little boy a couple grades behind him. And I mean, it took him a couple of years to be able to sound out the word cat. I mean there is no question there, I think he was just mild intellectual disability. He had more than that, but he was tested very young and he probably should have been re-tested. He had already had his one shot kind of thing. And yeah, that is a tough thing. To see him, because I know he is brighter than that. I know with more work he could have read, but you know by grade eight do you think he wants to come down and see me every day? It is sad, really sad that he never learned to read.

Pushing this particular student and others like him into a regular classroom did not work well for him—he could not read by the time he got to grade eight. It is not unreasonable to question the usefulness of including students with such serious problems in a regular classroom environment—it is likely not fair to them. Therefore, the re-structuring of educational governance has had a variety of prosaic and unintended effects. It is unlikely that those making these policies were interested in negatively affecting performance; they probably were genuinely interested in reducing discrimination. However, policies can often have unintended consequences when they are implemented on the ground.

The cultural context within which ADHD bodies are being governed in school facilitates the 'conduct of conduct' via 'risk' prevention:

> we inhabit a culture of precaution, prevention and pre-emption, where the logic of many practices for the conduct of conduct, and the obligation of those who must govern conduct is to act early, to seek to prevent future undesirable events materializing, even if one is only acting on the possibility that they might occur (Rose 2010: 80).

The kind of risk established about boys in relation to ADHD produces an environment of prevention and intervention. Interventions into learning and behaviour problems are often

intended to mitigate future problems—that is to say, problems which have not already occurred but may occur in the future.

Conclusion

It is my hope that this analysis of ADHD as a 'category in use' in practical activities provides the beginnings of a fruitful articulation between the social and physical sciences of the body. If taken seriously, this can productively combat the alarming trend in some recent anthropological and critical theory that constructs contemporary science as a straw man. In current writing and debates, science is often constructed as the 'Other' of the early 21st century (Bodenhorn 2012).

Although it is unfashionable to point this out, science hate – to the point of totally dismissing anything biomedical as colonial or *oppressive*—seems theoretically unproductive in the case of ADHD. Radical social constructionism has implicit in its arguments that humans occupy an ontological space over and above the material world: "constructing it rather than going through it" (Bodenhorn 2012: 236). In this same sense, a significant portion of modern social science has ignored the physicality of the body. Opposed to this is the materialism of some, but not all, biological coverage of ADHD, expressing the assumption that people's lived experiences are inconsequential in their disorder.

Science as a systematized mode of knowledge production and understanding is not *bad,* and as we saw in the biomedical ADHD literature it is sophisticated. Likewise, bio-medical interventions for ADHD were generally understood to be useful by scientists, doctors, and the teachers in my study. Regrettably, this sophistication is often lost in translation, or rather it is misrepresented. Unfortunately, it seems as though a significant portion of the critical theory analyses, though not all by any means, are formulated upon a misunderstanding of science.

Unlike the sociobiologists and evolutionary psychologists who look for (and often find) the gay gene, the adultery gene (it would not be surprising to see a 'study' of this type that finds the gene for who likes Coke or Pepsi), most geneticists would not argue that there is a single gene for a single trait.

In the case of ADHD, it can logically be assumed that the genetic makeup of the body has not changed to the point that upwards of 25% of some populations are ADHD because of the emergence of a single gene, such as the often cited DAT-1. Genetic drift would not account for this degree of population level change: it simply cannot occur this quickly (that is, in less than one hundred years). Nonetheless, sociobiological representations of human nature and human history are prominent in the public sphere: popular books, blogs and social media posts often adopt these explanations for their simplicity, as they reduce complex processes to simple explanations. Lancaster labels this quest to geneticize explanations for phenomena *genomania*. He argues:

> The genomaniacs collect genetic data, often in disparate bits, then weave wild and altogether unwarranted stories about their data's significance. Although most geneticists would acknowledge that there is seldom a singular gene for a singular trait genomania's perpetual discursive form is to declare the discovery of 'the' 'gene' 'for' such-and-such (2006: 106).

Recall the biological treatment of the genetic markers for ADHD, which implicate DA transporter and receptors as a risk factor for the disorder. DAT-1 was implicated as a risk factor, but was by no means heralded as 'the gene for' ADHD; this subtlety is all too often lost. Lancaster comments, "without anything much in the way of data, evolutionary psychologists simply weave stories: they purport to derive supposedly universal facts of the present from imagined practices of our evolutionary forbearers" (2006: 106). It is disturbing how readily people (academics not excluded) buy into these kinds of teleological explanations for human

action, how it reduces politics, power, agency, history and experience to biological determinisms. Perhaps it has so much power because, as Adorno wrote, a mass belief of this nature is one part positivism and one part magical thinking (in Lancaster 2006).

It is likely that medicalized explanations of ADHD will continue to proliferate within our current epistemological systems, which in turn perpetuate hierarchies of knowledge and expertise. The positioning of childhood *difference* within a medical discourse can be both productive and restrictive. On the one hand, it begins to move us away from older moral models of deviance and removes a good deal of the stigma involved: whether directed at the child, the parents or the educators. Additionally, given the bureaucratic structures of education and health, access to treatment and special education resources is contingent upon formalized diagnosis. On the other hand, as we have seen from the critical theory, we can readily see that medical and scientific frameworks are anything but *neutral* or outside of power.

As a way of optimistically moving forwards, Hacking's concept of 'human sciences' (2007) provides us a framework from which to begin to produce better knowledge of the human experience. Hacking is interested in the sciences of man, but not simply from the perspective of critiquing the objectivity (or not) of scientific inquiry. Because Hacking says it so well, I quote him at length:

> I am concerned with the sciences of man, but not in the style of the sociologist. My target is broader than the social and the human sciences, for I count psychiatry and much of clinical medicine among the sciences of man. What shall we call this family of sciences without sounding sexist? 'Sciences of human beings' is pedantic and ugly. I shall call them the human sciences: for although that label has a fairly clear denotation in French, it is not systematically used in English. The human sciences, thus understood, include many social sciences, psychology, psychiatry and a good deal of clinical medicine. The 'kinds' of people of my title are those studied by the human sciences. I am only pointing, for not only is my definition vague, but specific sciences should never be defined except for administrative and educational purposes. Living sciences are always crossing borders and borrowing from each other (2007: 293).

The current firm division between these sciences is problematic, because they are all talking about aspects of the same thing—human experience—although they may use different methods of knowledge production to do so. This could be taken a step further in the case of a human science of the body. Thinking and teaching about the lived body need not be divided or compartmentalized. This brings the body back into play, it reminds us that "I exist my body: this is the first dimension of my being" (Sartre 1956: 460).

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Appendix: List of Interviews (Pseudonyms)

All of the interviews in this study were completed during July and August 2014. While I interviewed 15 teachers or principals for this study I only include pseudonyms for the teachers whom I quote directly in the body of the thesis.

Teacher Pseudonym	**Experience**
John	Elementary school teacher with over two decades experience.
Mike	High school teacher with three decades of experience.
Emma	Elementary school teacher with about twenty years experience.
Jane	Elementary school teacher with around twenty-five years experience.
Donna	Elementary school teacher who retired with about thirty years experience.
Rita	A fairly new principal.
Margaret	Elementary school teacher, recently retired with three decades experience.
Karol	Elementary school teacher with two decades of experience.
Christine	Elementary school teacher with over a decade of experience.
Tammy	Elementary school teacher with approximately one decade of experience.
Carrie	High school teacher with about three decades of experience.
Mary	Retired principal of about thirty years experience.

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Ethics Approval

Western Research

Research Ethics

Western University Health Science Research Ethics Board
NMREB Delegated Initial Approval Notice

Principal Investigator: Dr. Kim Clark
Department & Institution: Social Science\Anthropology,Western University

NMREB File Number: 105140
Study Title: Teachers' Experiences of ADHD in Sarnia, Ontario
Sponsor:

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NMREB Expiry Date: April 30, 2015

Documents Approved and/or Received for Information:

Document Name	Comments	Version Date
Western University Protocol		2014/06/03
Letter of Information & Consent		2014/06/03

The Western University Non-Medical Research Ethics Board (NMREB) has reviewed and approved the above named study, as of the HSREB Initial Approval Date noted above.

NMREB approval for this study remains valid until the NMREB Expiry Date noted above, conditional to timely submission and acceptance of HSREB Continuing Ethics Review.

The Western University NMREB operates in compliance with the Tri-Council Policy Statement Ethical Conduct for Research Involving Humans (TCPS2), the Ontario Personal Health Information Protection Act (PHIPA, 2004), and the applicable laws and regulations of Ontario.

Members of the NMREB who are named as Investigators in research studies do not participate in discussions related to, nor vote on such studies when they are presented to the REB.

The NMREB is registered with the U.S. Department of Health & Human Services under the IRB registration number IRB 00000941.

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