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**A Foucaultian Discourse Analysis of Educational 'Underachievement':
Psychology's Run Away Concept**

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Abstract

Underachievement is a dominant feature in educational discourse; it is often framed as a 'crisis' affecting different social groups, or even whole countries. A particularly common depiction of underachievement is that of a 'gap' affecting ethnic minority and working class groups. Nearly 60 years of research, reform and policy attempts to address this 'gap' have made little progress in lifting achievement levels. This paper uses a Foucaultian discourse analysis method to encourage a reformulation of underachievement discourse, particularly as it relates to minority ethnic students. A genealogy of the conditions of possibility which gave rise to underachievement reveals this concept and its related assumptions and processes (such as testing) to be part of a broader system of power relations which structure education in favour of dominant cultural and economic needs. The discipline of psychology has been instrumental in providing a supposed scientific basis to the dominant educational values of scientific management, efficiency and neoliberalism. This thesis posits that underachievement is a socially located concept which is able to exist and shape social realities due to its convenience to dominant educational and cultural practices. In revealing the social nature of psychological knowledge on underachievement, psychology's claims of the possibility of objective social knowledge under post-positivistic, empirical methods are also brought into question.

Keywords: Underachievement, Foucault, Discourse Analysis, Genealogy, Psychology, Education

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A Foucaultian Discourse Analysis of Educational 'Underachievement': Psychology's Run Away Concept

[W]hat if, all along, our well-meaning efforts at closing the achievement gap have been opening the door to racist ideas? What if different environments actually cause different kinds of achievement rather than different levels of achievement? What if the intellect of a poor, low testing Black child in a poor Black school is different—and not inferior—to the intellect of a rich, high-testing White child in a rich White school? What if the way we measure intelligence shows not only our racism but our elitism? (Kendi, 2016)

Underachievement is a term which is frequently mentioned in modern educational discourse (Gillies, 2008). Weiner et al. (1997) describe underachievement as one of the most dominant discourses within education, while Smith (2003) points out that the Times Educational Supplement features an article on eradicating the underachievement of a given social group almost every week. In their work on underachieving boys Mahony and Smedley (1998) go so far as to argue that there is a modern obsession with academic achievement. Similarly Archer (2008) has stated that a focus on underachievement far outweighs a focus on academic success, and posits that “media, policy and research attention seems to be directed at trying to measure, map and understand the potential causes (and ‘cures’) for underachievement as compared to ‘success’” (p. 89).

A clear theme which emerges when examining underachievement is that it is frequently represented as a crisis affecting certain groups. For example, Gandara and Contreras' (2009) refer to underachievement as a crisis affecting Latino students; Grantham (2004) states that there is a crisis regarding a lack of black

male representation in gifted education programmes and Griffin (2000) says that boys' underachievement is frequently framed as a 'crisis' and induces a 'moral panic'. Titus (2004) notes that the sense in which boys' underachievement is seen as a crisis has been exacerbated by headlines such as '*Boys Under Siege*' (Eberstadt, 2000, as cited in Titus, 2004) and '*Little Boys Lost*' (Levine, 1999, as cited in Titus, 2004). This crisis discourse can be found in the New Zealand context too, with Waikato University Professor Russell Bishop describing Māori underachievement as a 'ticking time bomb' (as cited in Fox, 2007).

Typically these underachievement crises relate to the achievement 'gaps' between majority and minority ethnic groups which began to receive international attention from the 1960's onwards (although as noted the underachievement of boys and gifted students have been framed in crisis terms too). In New Zealand, the gap between New Zealand's indigenous Māori and Pākehā (European) students has been defined as one of the most significant and enduring features of education (Bishop, Berryman, Cavanagh and Teddy, 2009; Marie, Fergusson, Boden, 2008), however, despite its lengthy recognition and the rhetoric of crisis surrounding it, this achievement disparity has remained largely unchanged since its first acknowledgement in 1960 (Bishop, Berryman, Cavanagh & Teddy).

Bishop, Berryman, Cavanagh and Teddy (2009) state that many attempts to address Māori underachievement in New Zealand have tended to reflect Pākehā cultural values and have failed to acknowledge the "experiences, understandings and aspirations" of the Māori communities involved (p. 2). A wealth of Māori led initiatives have made traction in education; however, they have often faced significant obstacles and opposition in their installation (Walker, 2004). Penetito (2009) argues that policies and initiatives enter power relations in New Zealand where the pendulum will always swing in favour of the dominant Pākehā culture; requiring significant sacrifices and compromises to be made by Māori.

My thesis will use a Foucaultian discourse analysis method to examine the ways in which the power balance is also in favour of Pākehā culture when it comes to the way underachievement is talked about, conceived of and defined. This is not another study which looks at how, why or to what extent minority cultures across the globe underachieve comparatively to their majority culture counterparts; but rather one which looks at the very definition of underachievement and the history of forces behind it. Ultimately, the historical perspective employed in this paper works to undermine the deservedness of dominant perspectives on underachievement by revealing them as socio-historically located phenomena which preserve dominant cultural interests.

The genealogical tracking of the emergence of underachievement as a concept reveals that psychological knowledge has been instrumental in the establishment and maintenance of underachievement as a concept. It was seemingly a discrepancy between achievement levels and IQ (Intelligence Quotient) for 'gifted students' which gave rise to the concept of underachievement in the first place, although as you will see numerous surrounding conditions of possibility made such a definition relevant too (i.e. a focus on social efficiency, testing and the needs of educational administrators). Psychology has also been intricately involved in the development and measurement of related concepts such as potential and capacity, creating norms and levels of intelligence (i.e. the category of 'gifted' students) and it developed a theory of psychometrics which now informs educational testing and classroom practices. But as you will see much of this psychological knowledge from the early 20th century was constructed in line with its social context; the knowledge which came to dominate (and that which was excluded) occurred in line with social need and is embedded with values and assumptions of its time.

Underachievement is, in a sense, psychology's run away concept. The psychological definition of underachievement and the psychological theories which inform continued practices of standardized testing are out of touch with dominant

psychological knowledge, and yet their reign continues. Underachievement and its related practices of standardized testing, its embedded values of individualization and its assumptions of a universal, mono-cultural and singular intelligence continue to structure social realities in a vast and significant way. Many of these practices, values and concepts (i.e. standardized testing and singular notions of intelligence) are highly contestable and easily revealed as having been constructed in line with dominant cultural needs. However, it is because of their social convenience, initially to educational administrators during pan-education and now to the neoliberal global orthodoxy, that they are able to continue seemingly unabated.

The theoretical and historical analysis applied here (based on work by Michel Foucault and Derek Hook), has revealed not only the social locatedness of underachievement as a concept (i.e. its ties to social pressures, values and events), but also the way in which disciplinary knowledge has shaped the processes, norms, research, practices and policies occurring within educational and policy fields. This disciplinary knowledge (namely, psychological disciplinary knowledge) has constructed the underachiever as a kind of individualized, universal, a-historical and totalized research object, which can be manipulated, tampered with and understood in terms of individual deficit. What the marginalized and critical perspectives I include in this thesis reveal, however, is that the underachiever may choose to underachieve; they may make the rational decision to resist a schooling system which has never served them, which does not represent them and which has historically oppressed them. Equally the underachiever may underachieve due to vast structural forces which limit their potential to do well in education, or because mainstream education sits outside of their interests; perhaps they know they face a 'glass ceiling' when it comes to later employment, perhaps they prefer more creative pursuits or perhaps they have family to care for.

Critical perspectives on underachievement which acknowledge the subjectivity and reflexivity of the underachiever; their existence in and continual

response to their social context, destabilize the deservedness of dominant psychological approaches to this problem. Psychology's continued reliance on reductionistic notions of IQ, its explanation of behaviour which sits outside of established norms of efficiency in education as pathological and its practices of understanding the individual as possessing a kind of universal academic potential have effects beyond the academic realm they are produced in. Underachievement is psychology's run away concept, in the sense that the testing the concept hinges on is now out of step with dominant psychological knowledge, in the sense that the psychological definition of underachievement leads to necessarily racist conclusions, and because this concept has strayed far from the realm of psychology; it is now a broader social 'crisis, a 'ticking time bomb'; a construct of great social influence.

Objectives and Outline

The aim of this thesis is to conduct a broad historical analysis of underachievement in order to shed light on the ways in which our current understandings of underachievement as a concept are very much contingent on underlying conditions of possibility. 'Conditions of possibility' refers to necessary pre-existing influences on underachievement, such as psychological theories on development, learning and intelligence, requirements of educational administrators, social expectations of the role education should play, majority political opinions on the nature of education and a country's economy. 'Conditions of possibility' also refers to underlying ideologies which dominate a given society, such as neoliberalism, individualism and meritocracy. But further than this, this concept also refers to the way all these various influences have played out historically, which ideologies or perspectives dominated, which were subordinated and which carried on but in new forms or terms.

Before the analysis section in my thesis I have devoted considerable time to a theoretical background and methodology section. This section functions as a kind of analysis, in that it begins to engage in an epistemological critique of the sort of knowledge and knowledge gathering practices which inform dominant underachievement discourse. Drawing largely on Hook's (2001; 2005; 2007) work on Foucaultian discourse analysis (or genealogy) as a method, I provide a rationale for psychological research into this topic which begins to sit outside the bounds of power-knowledge. Primarily, I explore the relationship between knowledge, discourse and power and the need for research which is meta in nature and examines the historical conditions of possibility which shape our understanding of a given phenomenon.

I begin my analysis proper by exploring competing and often contradictory definitions of underachievement used by researchers. I open with this section to begin disrupt the sense in which there is a clear monolithic, universal and ontological sort of category which we might call 'underachievement'. In examining the definitions of underachievement, and the multiple problems and contradictions therein, a number of assumptions and underlying values reveal themselves. Namely, there is a focus on achievement as a particular output (i.e. completion of a task or a score on test), an idea that this output is measurable and predictable (particularly by psychometric tests) and a drive to compare those outputs across individuals and groups. There are also related assumptions surrounding the possible universality of those tests and the idea that everyone possesses a kind of universal and measurable cognitive potential.

The following section in my analysis details the conditions of possibility which lead up to the emergence of underachievement as a concept. I traverse the events of the late 19th century and onwards in the United States (US), revealing the way in which the values and assumptions inherent in underachievement discourse came about because of the value they had within their socio-historical context. It is

through an understanding of these historical conditions of possibility that the continued emphasis on intelligence, potential, testing and comparisons within underachievement definitions comes to make sense. Rather than these ideas being divined by researchers within a pure and decontextualized theoretical space, a sense in which they were able to arise due to their fit with pre-existing conditions of possibility emerges.

After giving historical background to the many concepts and ideas which dominate underachievement discourse, I then turn to the way in which underachievement is talked about in relation to different social groups in the US, United Kingdom (UK) and New Zealand. Here we see that while the causes, urgencies, theories and policy initiatives surrounding underachievement might vary according to the social group believed to be underachieving, there are a number of consistent features of dominant underachievement discourse (i.e. a focus on outputs, testing and singular imaginings of intelligence). These features (which as noted emerged in the late 19th, early 20th century) remain convenient to modern neoliberal governance structures and to related educational movements such as school effectiveness reforms. They also effectively function to preserve white middle-class cultural dominance within education, given that this is the group which has historically established the norm for such modes of education and testing.

The final chapter of the analysis focuses specifically on how underachievement is talked about in relation to minority ethnic groups, and the history often surrounding this talk. What becomes especially clear in this section is that the system through which minority groups are expected to achieve is far more insidious and culturally biased than is often acknowledged, as is the concept of underachievement itself. In New Zealand, Māori are held accountable to an educational system which can label, define and determine aspects of their future, but historically this has been a system which they have had very little say in; a system based on definitions of success, knowledge, learning and testing which they

were not party to influencing. An understanding of underachievement (and all the concepts it hinges on) as being constructed in line with (contestable) dominant cultural values and needs (rather than being an objective sort of label) makes the treatment of this issue as one in which Māori students simply need to 'catch up' or 'close the gaps' with their White peers seems insufficient. When the notion of 'closing the gaps' is viewed in its historical context, it is revealed as a continuation of White dominance in education, and as the new face of assimilation.

This Foucaultian discourse analysis is aimed at dislocating the entitlement of dominant perspectives of underachievement, it seeks to reveal their dominance as being due to a concert of structural conditions and thereby clear space for new (or old and previously subjugated) ways of addressing and defining this issue. To achieve this end my analysis calls on pre-existing critiques of the dominant theories, practices and assumptions underlying underachievement and related concepts, some relegated to the margins, and some from more powerful places within academia. Although I work to disrupt the neutrality, objectivity and universality of the concepts underlying underachievement, my aim is not to imply these dominant ways of conceiving of underachievement simply need to be updated, improved or replaced with some other theory which claims to depict an immutable or universal category of underachievement. Rather, what all of this works to reveal is that modern knowledge practices are exclusionary; the push is not simplistically for research to improve or update itself, but to open itself to more voices, perspectives and ways of knowing.

In sum, my thesis demonstrates that the way we conceive of and respond to educational underachievement depends on a very complex mix of influences. Attention to the underlying conditions of possibility gives a sense in which the concept of underachievement emerged, not through a simplistic discovery of it as a naturally occurring object, but rather as a discursive object which produces important material functions for invested power groups. In true Foucaultian fashion

the aim of my analysis is not to discover truths, but rather to launch an epistemological critique. I will trace the emergence of underachievement in the US, look at modern underachievement discourses globally, and then begin to problematize traditional views of Māori underachievement on the basis that they treat underachievement as a monolithic, universal and objective sort of category. This category of 'underachievement', I will argue, contains various taken for granted assumptions about the neutrality of the educational curriculums, testing practices and the psychological knowledge which informs it.

Theoretical Background

Foucault's 'theory' and the methodological principles derived from it seek to analyse dominant knowledge practices and truth regimes. The 'data' produced by this methodology is meta in that it produces knowledge on knowledge itself; it ties knowledge to practices and systems of power and it shows how dominant discourses are powered social productions which go on to create new conditions of possibility in the real. Foucault has already done much work in subverting dominant discourses through his genealogical tracking and revealing of the intricate relationships between modern power, discourse and knowledge. An introduction to his work on these three themes is key to understanding the motivation for this methodology.

What Foucault's work reveals is the way in which modern disciplinary knowledge, such as that produced by psychology, is able to produce effects of normalization, punishment and subjectification; it is able to effectively order and control social fields; to distribute labels, to hierarchize and to arrange people within social power relations. The below is thus an introduction to why we ought to be sceptical of disciplinary knowledge and it begins to encourage wariness of

technologies such as examinations and IQ testing by linking these products to earlier modes of power and demonstrating their effects of control and punishment.

Exactly who is controlled, dominated, punished or rewarded by systems such as IQ testing and examinations will be outlined in my analysis proper. This theoretical background functions as a kind of prelude to the analysis itself, as it uses Foucault's work (as interpreted by Hook, 2001, 2005 and 2007) to begin to throw disciplinary knowledge into contention; to begin to elaborate the impossibility of a perfectly neutral social science and to demonstrate how various psychological knowledge products might function as technologies of power. The below is based on the work by Derek Hook (2001, 2005, and 2007) and his interpretations of Foucault, as well as my own readings of Foucault's (1977) work on discipline and punishment.

Discourse: A Broader View

Discourse is often taken to refer to acts of writing, speaking or thinking. However, under a Foucaultian view, discourse is that which both "constrains and enables" these acts (Hook, 2001, p. 522). 'Discourse' refers to a system of rules and procedures which dictate the form our writing, speaking and thinking can take. It might be thought of, as Hook suggests, as the 'conceptual terrain' through which all valid discursive acts must pass. Young (1981) argues that to speak, think or write outside of this terrain would be thought of as incomprehensible, unreasonable and mad.

Perhaps the most obvious system which operates on discourse is that of social prohibition. There are always taboos, rituals, circumstances, privileged and exclusive speaking positions which operate as a vast, intersecting network of constraints and invitations to think, speak and write in certain ways. When considering what constrains and enables discursive acts, Foucault suggests that

there are both internal and external forces of exclusion. For example, consider how external systems such as pedagogy, publishing requirements, disciplinary constraints, practical constraints and university systems function to “limit and constrict the free flow of discourse” (Hook, 2001, p. 524).

On an internal level, intertextuality might limit the possibility of originality and freedom for the author; rather than the author having free reign of discursive possibilities, discourse is argued to be more finite; limited to what is already known, read and said. As Said (1983) says, “over and above every opportunity for saying something there stands a regularizing collectivity...called a discourse” (p. 186). Disciplinary constraints can operate as an internal system of exclusion too. Take, for example, notions of ‘validity’ in psychology. It is not enough for a statement in psychology to utter a truth, its disciplinary acceptance hinges on a variety of other conditions; such as its conformity to discipline specific rules of validity (Hook, 2001).

Foucault’s argument (and what he has demonstrated in his work), is that discourses are filtered and refined according to socio-historically located assumptions of what counts as reasonable. These restrictions and exclusionary systems are not located within the discourse itself; rather, there is an interdependence between the discourse and the material. ‘Material’ here might be taken to refer to systems beyond discourse, such as academic disciplines, pedagogy, publishing and university systems. Discourse thus both produces material effects and material effects give rise to discourse. Foucault’s contention is that this production of discourse (i.e. what gets counted as dominant knowledge, and what does not) occurs through systems of power; discourse is secured by power relations in that power determines the discursive rules which dominate it. But power can also become substantiated through discourse because discourse supports the power relations which constrain it (Hook 2001).

Knowledge

It is not difficult to summon examples of how much our knowledge, or what we take to be reasonable, rational and reliable knowledge, has changed throughout history. We need only think, as Foucault suggests, how it was not always self-evident that an individual committing a crime ought to be locked up, that hyperactivity in a classroom may require a diagnosis of attention deficit hyperactivity disorder (ADHD) and so on. Yet when one considers the large body of knowledge now produced on these ideas, it is easy to consider them indisputable. Foucault's method for subverting such indisputable and taken-for-granted seeming truths is to bring to light the specific conditions of possibility which allowed this knowledge to emerge in the state it did (Hook, 2007).

To understand how conditions of possibility shape knowledge production we might consider how ADHD may have come to be known (if it were known at all) under different conditions. For example, if there were a tendency to view hyperactivity as a positive personality trait (i.e. one linked to productivity), if there was not such a pressing need to understand school underachievement, if there was not a pre-existing practice of pathologizing deviance from social norms and a crossover between education and psychology, would ADHD be understood in the same manner? What if there had been no historical relationship between psychology and education and the ambition to explain school behaviours had instead fallen under the purview of sociology, or another discipline instead? What if it were thought and accepted that diversity in learning methods, styles and behaviours were a natural rather than pathological phenomenon? Would ADHD still be understood in the same manner? The above questions are not to undermine the existence of ADHD necessarily, but rather to show that conditions beyond ADHD as an ontological object can shape the form knowledge on it will take.

What Foucault's genealogical work demonstrates is that our knowledge processes do not necessarily unfold linearly; we are not always progressing closer

to a perfect truth. Instead knowledge creates conditions of possibility for further knowledge to emerge and it supports the status quo of social relations which allowed that specific knowledge to emerge in the first place (Hook, 2007). For example, the advent of 'mental disorders' as a construct opens up the conditions of possibility for personality traits to be looked at and 'known' in a whole new way. However, when we start down a path of viewing and knowing things in a certain way we are by no means guaranteed it will produce a truthful or accurate knowledge of something; rather knowledge is an archive of a set of ever growing conditions of possibility; it is the crystallization of a socio-cultural milieu.

In sum, knowledge both produces the cultural milieu and responds to it; our knowledge may become ever more fitted to our time, but not necessarily ever closer to 'truth'. I would argue that Foucault's position does not necessarily rule out the possibility of an external reality for which such 'truths' could be discovered and known, inasmuch as it makes a commentary on how, why and what we will know. Put differently, this view of knowledge as a production does not outright deny the possibility of a truth being discovered, rather, it suggests that if we were to ask, 'will we know truth when we see it?', the answer might be, 'only if it is socially relevant' or 'only if the conditions of possibility are there for its discovery'.

Foucault is quite clear that disputing the possibility of discovering objective or true knowledge is not a regression to baseless relativism. As Hook (2001) says "to realize that truth is a function of discourse is to realize that the conditions of truth are *precisely* rather than *relatively* contingent on current forms of discourse" (p.525.). Foucault does not dispute claims to truth or knowledge by arguing for theoretical relativism, rather he asserts that there are fairly consistent and stable conditions of possibility which underwrite the production of knowledge. Accordingly, Foucaultian discourse analysis endeavours to understand the social-historical milieu of institutionalized forces which underwrite the production of discourse and knowledge and to undermine the notion of knowledge as objective through a

revealing of the institutionalized systems which set the parameters around what form that knowledge may take.

The Sovereign Era

What Foucault's genealogical history of punishment enables us to do is to link the disciplinary sites of the school, the clinic, the consulting room back to the far starker disciplinary contexts: the prison, the factory floor, the military base. The normalizing objectives of human science disciplines - whether we have in mind here psychology, criminology, social work, pedagogy, or psychiatry - have no doubt taken on far more refined, far more sophisticated and distinctive technological means but at basis they share the same recuperative, rehabilitative or corrective objects as these austere disciplinary institutions. (Hook, 2007, p. 40)

In order to demonstrate how power functions in modernity Foucault tracks the different changes and manifestations of power throughout different eras. His theory on how modern power functions, is perhaps best first understood in the context of his genealogical work on it. In early monarchical societies, for example, power was able to take a far more explicit and violent form, such as through the public, ritualistic torture of those who broke the law. These public acts of torture allowed for sovereign power to be momentarily fixed to the human body. However, Foucault argues that for the most part the imposition of power on individual bodies was discontinuous and fragmented (Hook, 2007).

The sovereign era did not pertain to the same individualization of bodies as the modern era does. Instead sovereignty had a pyramidal structure of power; those at the top had their subjecthood fixed to their body (consider the importance of blood ties of those ruling in a monarchy), while those at the base were typically

ruled as communities, families, or multiple groups. Public acts of punishment represented rare and symbolic moments where the sovereign power linked a person outside of monarchical power with an individual body; where a 'commoner' was individualized in a sense, by having a punishment inflicted on their body (Hook, 2007).

As a disciplinary method, public torture was arguably quite ineffective; it required what Foucault called "a cyclical game of ceremonies...the reiteration of a profound memory" (1977, p. 193). These public torture spectacles followed only a few criminal instances, with much illegality going unpunished. Further, the public rituals themselves posed a potential for chaos, as masses would on occasion side with the punished rather than punishers (Hook, 2007).

The Reformist Era

The humanist reformers of the 18th century had an altogether different approach. Deeming punishment ceremonies inhumane, humanist reformers advocated for a system of punishment which serves as a corrective system; a restructuring of the social order through the employment of symbols and representations which act as deterrents to crime. Deterrence was to replace retribution as the function of punishment and rather than being retributive, punishments must be measured; "crimes must come to be matched to didactic modes of punishment that undo the logic of the criminal act" (Hook, 2007, p.11).

In the reformist era the right and power to punish became less a function of revenge by the sovereign powers and more of a social issue; punishment served to prevent criminal action for the good of humanity. Essential to a shift to humanist reformation was a need for knowledge on how best to regulate society in order to achieve deterrence from criminal acts. Hook (2007) argues that this is where Foucault's argument becomes fundamentally psychological; it is at this historical

turn that psychology, power and knowledge become intricately linked. It was at this point that a demand was created for knowledge of psychological concepts such as the criminal's habits, will, attitude and what methods might best exercise control over them.

This proto-psychological knowledge is what Foucault (1977) calls power-knowledge, as it is through this knowledge that power over individuals is exercised, and through this power that knowledge is produced. In the humanistic reforms and beyond, power is more explicitly exercised not just on the body, but on the psychology of the subject too. Control is not exclusively sought through inflicting pain on the body, but rather symbols and representations that are assumed to influence the subject's psychology are used. Accordingly, Foucault (1977) argues that humanism has more deeply entrenched power than the period that preceded it, by effectively giving it a double function.

In addition, the humanist era marks the transition to treating humans as distinctively individual subjects. Consider the advent of human rights here, now taken to be an inexorable truism, which at their base assume the primacy of humans as distinct individuals. A switch occurred where subjectivity was no longer attached only intermittently to the masses, but instead individuals themselves were assumed to possess what might be termed 'pseudo-sovereignities' (Hook, 2007, p. 15). Foucault argues these pseudo-sovereignities are illusory, as power and control tend to operate largely through disciplinary systems, rather than being fixed in individual subjects (Hook).

The Disciplinary Era

The 19th century's elaboration of the human sciences entrenched the power of the humanist era even further; namely through the establishment of scientific expertise and through the increasing invisibility of power structures. The

disciplinarity era has involved large scale professionalization and fragmentation of power structures. Authorities have come to require specialist training and vast power structures have been broken up into smaller professionalized groups, with their own specialized discourses and procedures (Hook, 2007).

In stark contrast to the sovereign era, disciplinarity sees the authority to control and punish divided up; with no singular body or corpus clearly and singularly possessing vast power and authority. These different agencies and disciplines became able to function as cogs in a larger machine or network of structures, rather than power having a more obvious locus of control and a simplistic top-down, repressive function (Hook, 2007).

The generation of knowledge in the disciplinarity era follows along the lines of the humanist reformers and assumes the primacy of individual human subjects. The sciences with their assumptions of objective knowledge can now produce profiles of individual human subjects, while at the same time testing methods of control through measurement, surveillance, corrective and rehabilitative instruments. This leads to what Hook (2007) describes as a circular process; “objectifying knowledge [comes] to persuasively sanction prescriptions of expert intervention, which, in turn, intensifie[s] the procedures of individualization able to capture the problematic facets of deviant subjects” (p. 15).

In addition to these circular knowledge processes, the fragmentation and professionalization of human sciences also means that a chorus of expertise was formed. Take the judicial system, for example; criminologists, educationalists and psychiatrists all undertake a similar process of circular knowledge production which informs and supports the judicial system. This gives a credence to assertions of guilt never seen before; Hook (2007) calls it a “scientific-judicial complex”; a “whole new system of truth” (p.15). But importantly, the knowledge production of each of these groups is not contained within their individual academic disciplines, but rather gets taken up within broader networks of power with effects of control (i.e. it can be used

to sanction court orders, rehabilitative programmes and ultimately justify criminal punishment) (Hook).

Detheorizing Power. Foucault avoided totalist theories of how power might function, opting to ground claims within local contexts (such as above) instead. He advocated for a kind of de-theorizing of power, a way of understanding it which is less rigid, ahistorical and begins to work outside the bounds of power-knowledge. At present various disciplinary bodies, such as sociology, economics and law, have their own analytical frameworks and definitions of power. Typically these approaches view power through a 'repressive hypothesis', where power's function is primarily repressive or prohibitive. Power, under this view, is a relatively stable entity; it can be possessed and quantified, and is something which might be wielded to maintain and dominate (i.e. class repression). These conceptualizations focus on a macro-political level; they take a broad view of how power might be applied globally across a variety of context specific situations (Hook, 2007).

Hook (2007) argues that "a complacent reliance on stereotypical notions of power may work to mask the complexity of contemporary productions of power" (p. 64). For example, while discourses which illuminate and challenge class repression might appear to have a liberatory function, by ignoring the micro-political, subtle and more ambiguous functions of power, such discourses might miss important components of how such repression could occur. In doing so these discourses on power become a form of power-knowledge themselves, reducing instances of power to only broad instances of repression and necessarily leaving many other repressive functions out of their gambit.

Foucault's position is that we should be wary of liberatory or humanistic discourses because they may still take up numerous assumptions present within disciplinary power-knowledge; particularly assumptions of the individuality of human subjectivity. His argument is not that all such discourses will fail to achieve

seemingly positive effects, but rather that they do not necessarily lie outside of the bounds of power they seek to challenge and thus can be taken up as justifications within controlling regimes. Further, these discourses which situate liberatory/humanistic ambitions at their centre become particularly hard to challenge; it seems almost inhumane to deny the value of actions which situate human betterment as their objective (Hook, 2007).

The difficulty of challenging dominant humanist discourses points to an important facet of how power might function. Rather than a simple repressive enactment, Foucault's critique draws attention to the way in which power can also appeal and seduce individuals as a seeming constructive force of betterment. Foucault argues that

[w]hat makes power hold good, what makes it accepted, is simply the fact that it doesn't only weigh on us as a force that says no, but that it traverses and produces things, it induces pleasure, forms knowledge, produces discourse. It needs to be considered as a productive network...more than as a negative instance whose function is repression. (1980, as cited in Hook, 2007, p. 67)

In other words, to say that power is only being exercised when someone is institutionalised, rather than when they willingly visit a psychologist and accept a diagnosis, is to leave much out of the analytical framework. Power can produce things; knowledge, systems, administrative organisations; it can give structure to chaos, justification to punishment and reward; power produces A+ students and CEO's, just as much as it represses and punishes. Thus analyses of power "should remain receptive to generative instances in the production of knowledge and

practice, attuned to its many constructions, its outcomes of innovation and invention” (Hook, 2006, p. 67).

Understanding the link between knowledge and power. Recall that traditional juridical, sociological and economic conceptualizations often conceive of power as having a quantifiable essence which can be possessed, exchanged or lost, or as something which functions to maintain particular relations between capital and labour. Power is depicted as a sort of commodity; it can be used and wielded against others to produce a top-down repressive function. A Foucaultian approach suggests that power might instead be a “relation between forces” (Deleuze, 1988, p. 70). In other words, power is neither an object, nor does it act directly on objects, instead it exists in relation to other forces.

Deleuze (1988) compares the concept of ‘power as relation of forces’ to that of violence; violence is an action on bodies and objects, it can destroy and alter, while power bears no such immediate impact; instead it is an action upon an action. For example, power might be said to exist in the following actions upon actions “to incite, to induce, to seduce, to make easy or difficult, to enlarge or limit, to make more or less probable” (p. 70). Under this view power occurs through an action rather than being an object which one might possess or wield. Power is not ‘top-down’ but rather flows through forces, it is not repressive as it ‘seduces’ as well as ‘limits’ and it “passes through the hands of the mastered no less than through the hands of the masters” (Deleuze, p.71).

Under a Foucaultian view there is a far more complicated web of interactions involved in power-relations. As Deleuze (1988) says: “each force has the power to affect (others) and to be affected (by others again), such that each force implies power relations: and every field of forces distributes forces according to these relations and their variations” (p.71). In other words, where forces might act on other forces, for example, where a force may act to increase the likelihood of underachievement in school, this is a power relation. But there is no simple

causative pattern, the force which increases likelihood of underachievement might be affected by a force which induces something contrary, creating a complex pattern of events.

Power is not 'cause and effect', inasmuch as it is 'cause'; power is located in action and practice. But its 'cause' is not simple, singular or direct; it is something which is independent of its effects and of the objects it enters; it is a 'physics of abstract action'. In other words, it is an independent matter; it does not serve the objects it forms, the technologies it utilises, or the people that benefit from it (Deleuze, 1988).

Knowledge, on the other hand, has a closer relationship to objects. It passes through objects, rather than forms, and can be divided, hierarchized and controlled in ways power cannot. Knowledge is tied to objects, and so it can be archived and organized, while power is more diagrammatic. We might seek to track power through the points it passes (where forces act on other forces), but there is no central locating point of modern disciplinary power, it has no sovereign head. Power is both local and not local at the same time; it is local in that power only exists in these actions, at any given point in time, and yet not-local in that it cannot be pinned down as such; it is more, a complex series of "twists and turns" (Deleuze, 1988, p. 73).

Deleuze (1988) says that "power-relations are the differential relations which determine particular features" (p.75). To understand this better it is helpful to think of the way in which power might organize; for example, Deleuze offers the way in which relations between forces can involve a "distribution in space" such as "enclosing, controlling, arranging, placing in a series" or "ordering in time" such as "subdividing time, programming an action" (p. 71). An example here would be the temporal structuring around labour which came with industrialization.

While knowledge and power differ in their forms, there is a mutual interdependence between the two. Power-relations create conditions of possibility

for certain knowledges to emerge, and these knowledges stratify and make power relations visible. For example, while power relations may arrange society according to an 'individual as sovereign subject' framework, it is through knowledge produced about the individual that this power-relation becomes organised and substantiated. What will pass as acceptable knowledge is structured and encouraged by these power relations. (Deleuze, 1988) We might link this to the notion of knowledge crystallizing conditions of possibility, as discussed in the 'Discourse and Knowledge' section above.

Deleuze (1988) positions Foucault's argument as follows:

even the knowledge of Nature, and above all crossing a threshold of scientificity, refers back to relations of force between men, but are themselves actualized in this form: knowledge never refers back to a subject who is free in relation to a diagram of power; but neither is the latter ever free in relation to the forces of knowledge which actualize it. (p. 75-6)

In other words, knowledge cannot be produced free of power relations. We are not free to produce knowledge from beyond the forces upon forces of power. Instead we are provoked, seduced, limited, or any other combination of forces on forces, toward a particular type of knowledge.

It is easy and perhaps common to envision particular enterprises as the source of certain power relations; the state or the government are two strong examples. For Foucault, however, the existence of government or state presuppose power relations. The vast institutions that make up such governing forces; the family, the marketplace, religion, morality; these are not institutions with a fixed essence, but rather they are practices aligned and fixed through power, or forces between forces. As Deleuze says "there is no state, only state control" (1988, p. 75),

in other words; the state is not a naturally existing order, instead it is structured by vast power relations.

Hence under Foucault's view power and knowledge are not just necessarily intertwined, they are also a productive force; they construct objects, organizations, stratifications and whole systems of power relations. In this sense we develop a clearer picture of Foucault's idea of power as a productive force. But we must recall that there is no sovereign head to this power; no origin, essence, or motivation; although power may repress, exclude and discriminate, its negative forces are not pinned to one spot or agent. In understanding how power functions we must not look to where power is, as an object, but to how it operates in action, through forces, on forces. We must look to how it seduces and induces through a vast web of institutions.

Technologies of Power in Disciplinarity. Returning again to the 'disciplinarity era'; the advent of vast administrative bodies which are able to produce docile subjects are considered a technological innovation of this era which Foucault terms 'technologies of power' (Hook, 2007). As Hook says, these technologies function by

taking what were essentially political problems (problems of control), removing them from the domain of political discourse, recasting them into the neutral language of science and transforming them into technical problems for the sole attention of specialists and experts. (p. 21)

In the disciplinarity era, the economy of punishment becomes an economy of knowledge and it is through recourse to truth and knowledge that power structures are able to operate both in clear sight and invisibly all at once.

This visibility and invisibility are important aspects of this era's technologies of power. These technologies are visible in the sense they saturate the everyday

life, but invisible in the sense their effects of control and docility are hidden within specialist and humanist discourses. Consider, for example, the use of special education programmes for underachieving students again. The value of these programmes is situated in a humanist discourse in the sense that punishment and control come to be framed in corrective terms under disciplinarity. The advent of the examination and testing, for example, has allowed for the surveillance, measurement, comparison and ranking of students. This presumed objective knowledge then organises students accordingly, distributing methods of 'correcting' or 'rehabilitating' those who fall below the educational norms (Hook, 2007).

As noted earlier, Foucaultian discourse analysis aims to bring to light the sense in which our knowledge is always structured by conditions of possibility. A greater sense of humanistic and disciplinary science endeavours being tactics of control emerges during the use of this method, as it becomes clear that those designated 'abnormal' and in need of correction are not objectively so, but rather their status as abnormal is contingent upon a given set of conditions. The sense in which humanistic programmes, such as special education, are still grounded in power-knowledge is invisible because it is now framed in neutral, scientific and objective terms. There is also an invisibility of the processes which lead to the production of these programmes and knowledges about them; the operations, vernaculars and methodologies of each cog in this larger machine remain hidden from the unspecialized and uninitiated (Hook, 2007).

The motivation for an individual to anoint themselves into an understanding of each cog within this machine is arguably lessened by the sense in which the discourses underpinning such programmes are framed in corrective, rehabilitative terms. Why should we critique such programmes that might position betterment as their primary purpose? Programmes that do not on the surface, appear to punish, so much as offer additional help to students who fall behind? It is indeed the ability of such programmes to seem a neutral force for betterment, rather than a means for

producing docility and control that make them technologies of power. They are made invisible through their seeming neutrality, reasonability and rehabilitative function. This is a key aspect of the power of such knowledge - its seeming reasonability; it is our thinking things are this way for a reason that gives them the power to stay as they are.

Psychology is a prime example of the sort of disciplinary power which is able to structure social realities. Its technologies of power, such as standardized testing and IQ tests, function as seemingly objective and neutral tools for the progress and development of education, as well as the treatment of various societal problems. Understanding the significance of these technologies requires a departure from dominant perceptions of 'human betterment' and of social sciences following a kind of neutral process of ever improving knowledge which will benefit all members of societally equally. In order to grasp the way in which these tools function to normalize, punish, surveil and control individuals, we must first understand Foucault's notions of punishment, normalization and subjectification.

Punishment in the disciplinarity era. Foucault (1977) argues that punishment is still alive and strong in the disciplinarity era. However, unlike the more obvious punishments in eras before it (such as public torture and hangings) punishment is now considered to be a part of a double system. Under this view discipline is not achieved through punishment alone, but rather gratification and reward function to produce equally important disciplinary effects. Discipline functions, according to Foucault, as a kind of training mechanism, a process designed to induce conformity. Take, for example, the failure of a military soldier to conform to fitness demands or a student to complete their required school work; the student may be held behind at lunch to finish their work and the soldier forced to do extra press ups.

The failure of the student or soldier to conform is typically greeted with disciplinary regimes designed to close these gaps, to bring the deviant or non-

conformer in line with normalized sanctions. Disciplinary punishment is often in Foucault's (1977) words "isomorphic with the obligation itself" (p.180). But disciplinarity is not a simple one-off infraction-correction procedure, rather punishment and reward function as their own kind of micro-economy. The collection of various deviances or conformity points function to hierarchize people into categories of 'good' and 'bad'.

This hierarchization is a key component of how disciplinarity functions; Foucault (1977) contends that "discipline rewards simply by the play of awards, thus making it possible to attain higher ranks and places; it punishes by reversing this process" (p. 181). But punishment is not simply 'in the moment'; to hierarchize is to assume that a deviance or set of deviances can be taken to say something about the essence of an individual, not just in those moments, but in future moments.

Foucault (1977) views the advent of the 'examination' as an important technology for the kind of power effects which hierarchize people, namely because the examination does not limit its understanding of a subject to the present. Instead the examination is assumed to measure a student's 'potentiality'; to say something about what they can and will be, based on a set of past and present actions, or measures on a test. The examination allows power-knowledge to extend its effects across an individual's lifetime and in doing so justifies the systematic classification and hierarchization of individuals.

Foucault (1977) suggests that punishment in the disciplinary era functions to refer an individual's action to a wider field of comparison and then to differentiate and hierarchize that individual in relation to the norm. In doing this, disciplinarity traces the parameters for what difference is deemed acceptable; "[t]he perpetual penalty that traverses all points and supervises every instant in the disciplinary institutions compares, differentiates, hierarchizes, homogenizes, excludes. In short, it normalizes" (Foucault, 1977, p. 182). In other words, punishment takes reference from a wider body of what is considered normal.

Normalization. 'Normalization' and the resulting stratification of society, refers to the way in which those who tread into realms of unacceptable difference are subject to punishment, surveillance and rehabilitative regimes which claim to correct and help and is of central concern to Foucault's analysis of disciplinary power. In the modern era the actions of individuals which go punished or rewarded are no longer dictated strictly by the law, the word of god, or any other set text; instead what governs appears to be a sense of the 'normal'. For example, students are disciplined for not reaching 'normal' educational achievements and individuals are institutionalized and diagnosed when they do not meet a 'normal' standard of behaviour or functioning (Foucault, 1977).

Under a Foucaultian (1977) view human sciences function as an important technology of power in terms of providing an 'objective' base to this normalization. Unlike previous eras and systems of power (i.e. monarchy) power is no longer centred in a specific location. Instead mechanisms of control are fragmented and professionalized; they operate more invisibly as a dispersed group of seemingly neutral bodies of expertise. The knowledge produced in psychology, when taken up as power-knowledge, gives a seemingly objective basis to a new rule of law; that of the norm.

For example, when it comes to examinations and testing, psychology was involved in the construction of psychometric tests, the principles which underlie them and setting the parameters for normal academic development and achievement. These examinations now function as a key mechanism of normalization according to Foucault, as they both construct a norm (an average of results) and position individuals in relation to it (i.e. on a bell curve). The examination as a tool emerged simultaneously with the related technology of 'documentation' (writing and recording information about individuals) and enabled not just the objectification of individuals, but the recorded comparison amongst them. Examinations and documentation allow individuals to be weighed up in terms

of suitability for different tasks or interventions, while averages, categories and norms provide a justification for the arrangement, classification and hierarchization of individuals (Foucault, 1977).

Foucault (1977) contends that the examination and documentation of individuals allowed for the emergence of the individual as a 'case'; that is, it became possible to produce a documented study of each individual described, categorized, measured and compared. He compares the examination and the 'case' with monarchical ceremonies which achieved a similar function, but which instead rotated around notions of birth and privilege. In the modern age, however, individuals receive their status through "the features, the measurements, the gaps, the 'marks' that characterize him and make him a 'case' (p. 193). In other words, the means to power may have changed since monarchical eras, but power has not disappeared so much as changed form; access to ancestral power through status (determined by blood ties) has been taken over by 'the normal' and the various ways of measuring one's adherence to it.

The subject. In his work *'The Subject and Power'* Foucault (1982) argues that objectivizing individuals in knowledge also functions to transform them into a subject. This is not only externally, through the discursive construction of the individual's subjecthood, but also internally in that the individual comes to construct themselves as this subject too. In other words, subjectification (and by extension, power) is not one directional; the individual can internalize and reproduce power relations themselves.

To this end Hook (2007) provides a phenomenal example of this effect in action. A study by Hook (2002, as cited in Hook, 2007) found patients of psychotherapy often generated therapeutic roles themselves. The social expectations of the psychotherapy context seemed to induce patients to not just confess 'deviance' but to apply their own normalizing attitudes to it. This occurred even more so when normalizing judgement on the part of the psychotherapist was

suspended; in other words, when the psychotherapist did not do their job, the patient would do it for them.

Butler (1997) speaks of “the norm that installs the subject within language and hence within available schemes of cultural intelligibility” (p.86). Put differently, people become objects within psychological discourse and their subjectivised identity is a sort of enfolding or enveloping of this knowledge; the self is understood within the grid of cultural intelligibility that the individual has available to them. In the case of psychotherapy contexts, there is an internalisation of the self as abnormal and the self as in need of regulation, so much so that patients will take up the surveilling and normalizing role of the therapist, even without their explicit prompting.

This effect is famously described by Foucault as the ‘Panopticon’. The Panopticon is a metaphorical figure of a guard tower which watches over a prison. The prisoners cannot be certain whether they are being watched, but the presence of the guard tower, and thus the potentiality of surveillance, means that the prisoners come to act as though constantly under surveillance. The prisoners thus, in effect, take on the role of surveiller themselves, adjusting and controlling their own actions, in accordance with the possibility of surveillance (Foucault, 1982).

This transferral of power is an essential part of Foucault’s view on how disciplinary power functions. As Hook (2007) says, “the best means of guaranteeing the degree of total influence that disciplinary technologies aim at is if they become self-implementing systems, functions of a subjects reflexive relation to self” (p. 32). In effect, what occurs is that the invisibility of disciplinary technologies of power makes individuals themselves assume responsibility for its operations. The therapist need not prompt the patient to view their own behaviour within a normative socio-cultural matrix, for the subject has already internalized the normative gaze of their context.

Psychological power-knowledge. To begin to bring the above strands together; mainstream psychology is implicated as a technology of power in the disciplinarity era, as it is a discipline which produces power-knowledge which can then be internalised by individuals, justify the classification, hierarchization and sorting of individuals, and thus their punishment or reward. Achievement standards within schools are an obvious example of this sort of system; knowledge on academic output, capacity and potential (informed by psychology) is used to measure and compare individuals. From there some students are punished or 'corrected' and others are rewarded, both in the moment and in terms of longer term outcomes, such as access to employment.

The value of the Foucaultian discourse analysis in studying psychological power-knowledge is not simply that it reveals objects as socially constructed (indeed many psychologists may already acknowledge this to an extent), but also that it functions to reveal how and why things were the constructed the way they were. This is significant, as the issue here is not just that concepts are socially constructed in line with their historical conditions, but also that they can be taken up within power-knowledge circuits and produce a number of powered functions (thus understanding who such powered functions are benefitting, and who they are not, is essential).

When we look at the socio-historical pressures at play during the advent of various psychological concepts and theories, we can see that such knowledge emerged in line with and helped construct its surroundings. As you will see in my analysis, the advent of IQ testing occurred following a string of attempts to study individual differences and arrange them in hierarchical ways (particularly relating to race). It responded to an opening in educational markets for ways to measure, categorise and organise increasingly large student bodies, and it fit in perfectly with an increasing view that both psychology and education ought to be quantitative in nature and adhere to principles of empirical science. The IQ test went on to have an

extraordinary level of impact in the real, constructing its own conditions of possibility; hierarchies, categories, the notion of there being a single, universal kind of intelligence which might justify universal testing and schooling regimes.

Psychological knowledge, as will be demonstrated in the analysis, is not simply shaped by its surrounding social conditions, it gives rise to them. The questions we ask, the phenomena we focus on, the way we attempt to solve problems in psychology, are all influenced by the knowledge and practices which came before it. But we cannot understand this simplistically as social science knowledge following a path of ever improving objectivity. When we understand that much of the directions, foci and knowledge were informed by social conditions of possibility which may no longer have relevance or validity (and may have since been challenged as being racist, reductivist, and so on), then viewing psychology as a kind of traditional science which follows an ever improving or objective process is simply untenable. What more genealogical based discourse analyses do is reveal the ways in which current psychological research is informed by its history and the way in which this history confines and constructs the directions we take in our research (i.e. it might push us toward a tendency to focus on variables and assumed pathologies within the individual).

Ball (1995) argues that the point of theory in educational research should be “to engage in struggle, to reveal and undermine what is most invisible and insidious in prevailing practices” (p.267). Foucaultian DA is particularly valuable to these ends, as Graham (2006) contends; it has the ability to encourage more complex understandings of the various pressures and conditions of possibility which determine how schooling is carried out. Foucaultian DA is a significant movement away from individualizing research which focuses on why students might underachieve, and instead looks at the broad mechanisms which makes us ask questions in a particular way (i.e. why we focus on the individual in underachievement research in the first place). By expanding our field of questioning

beyond the individual themselves, we are able to see the various ways in which schooling is exclusionary and the ways in which dominant underachievement discourses can function as a form of violence. Throughout this thesis we will also see the various ways in which psychological power-knowledge has contributed to the violent exclusion, marginalization, ranking and sorting of individuals.

Methodology: Foucaultian Discourse Analysis

Although Foucaultian discourse analysis may theoretically have these values and achieve these functions, there is no stepwise formula for how to conduct one exactly. This approach, or lack of, is consistent with Foucault's de-theorizations of power, in that Foucault views it necessary to find a way to work against the grain of discursive constraints and outside of the power-relations which induce particular types of knowledge. Thus rather than outlining any kind of set procedure, I will conduct my analysis in line with a set of strategic methodological principles aimed at making disciplinary power knowledge visible.

The below methodological imperatives are derived from Hook's (2001) adaptation of Foucault's work for research in psychology. They are grounded in Foucault's work outlined above in that they are designed to undermine and make visible the ways in which Foucault has demonstrated power, discourse and knowledge function in the era of disciplinarity. They might be thought of as imperatives to help guide the analyst toward their aim of subversion of dominant discourses, rather than strict procedures or lenses which must be used.

The resurrection of subjugated knowledge. For Foucault, the political and powered nature of knowledge canons becomes most clear, and vulnerable, when rejected knowledges are remobilized; when we show the ways in which knowledge is cast out, the way the hierarchy is struggled against, and the "violence

of marginalization” (Hook, 2005, p. 6). Accordingly, Foucaultian DA might involve the strategic employment of subjugated knowledges to upturn our taken for granted assumptions; the norms and values which govern how and what we claim to know on a topic. Because subjugated knowledges exist outside of the power-knowledge circuit which straitjackets more accepted truths; they offer an example of how things have not always been, or need not be, the way they are (Hook, 2001).

However, the purpose of this resurrection is not to elevate subjugated knowledges to the level of ‘reasonable knowledge’; rather it is to highlight the contingency of our current views. For example, if history had unfolded differently, if different views on the function of learning had come to the fore, our knowledge on underachievement as a concept could have been very different. Subjugated knowledges function to show the contingency and fragility of current accepted knowledges, but they are taken to represent a different path, or a different version of the reasonable knowledge, rather than a definitive or better truth (Hook, 2001).

Reversal. ‘Reversal’ refers to the methodological imperative to subvert assumptions of origins, in favour of viewing them as an event with a multifactorial causation. Hook suggests the deployment of ‘eventualization’; a strategy which involves “rediscovering the connections, encounters, supports, blockages, plays of forces, strategies and so on” (Foucault, 1981, p. 6). We might link this back to Foucault’s rejection of authors as the origin of discourses and ideas.

The aim is thus to outline the ‘vectors of origin’ involved in the emergence of a discursive object. To achieve this end the researcher uses progressively broader historical sources to draw attention to the sense in which the discovery of a given object was a complex set of events. Foucault also intends this kind of analysis to show the sense in which the object is formed as a kind of ‘accidental assemblage’, rather than the result of a fair war between winners and losers (Hook, 2001).

Foucault’s view is that the wider we go with our analysis of possible players in the unfolding of this event, the more we “will be able to tie discourse to the

motives and operations of power interests” (Hook, 2001, p. 531). In other words, it is assumed that an analysis of causes of the emergence is also an analysis of affiliations to the discourse. Accordingly, such an approach would bring those who benefit from this particular ‘will to power’ to the fore.

Discontinuity. Discontinuity as a methodological principle refers to a challenging of notions of ‘unity’ and of straightforward cause and effect progressions of an object. Demonstrating discontinuity requires a historical analysis which traces the emergence of an event laterally rather than linearly. As an example, one might take the object of underachievement and look to its past forms; the various ways in which it has functioned as a discursive object throughout history. Rather, than looking deeply into an historical instance, the analyst is encouraged to look widely at how conditions of possibility served to construct this object in a particular way (Hook, 2001).

Because underachievement is typically treated as a naturally occurring ahistorical category, such an analysis would challenge the notion of there ever having been such a homogenous, stable concept at all. The linear analysis would break up the object into disparate conditions of possibility and present the different forms it took in accordance with these conditions. In sum, this technique might undermine the sense of this object having a true inner essence, or ontological status beyond the prevailing social conditions which construct it (Hook, 2001).

This approach might be seen as an interrogation of the present, in relation to the values of the past. Much of its importance stems from the sense in which truth claims often rely on notions of there being an ontological object which can be understood and known. The use of historical analysis in Foucault’s methodological endeavour of epistemological critique thus becomes clearer. By showing how dissimilar discursive objects are at various points in history, by drawing attention to the lateral conditions of their emergence, we critically undermine the basis of the

naturality and immutability of those objects. As Hook (2001) says we use “the past as a resource of destabilizing critical knowledge” (p. 534).

Specificity. The methodological imperative of ‘specificity’ is that the analyst oppose assumptions of universal, pre-existing meanings or essences with analyses of the ways in which discursive objects appear by chance. Inspired by the notion of breaking down the sense of ‘origin’ in favour of the ‘event’, the analyst undermines essentialist assumptions about discursive objects by including a consideration of the materiality of the discourse; the extra-textual conditions which allow its emergence (Hook, 2001).

This might be linked to Foucault’s point that we are clear to show the sense in which the multiple causes of a discursive event are an ‘accidental assemblage’. In other words, the emergence of a discourse does not occur in perfect linear progression according to which stakeholders or causes had the most power. Rather, what often occurs is a collision of sorts; various institutional powers, needs and pre-existing discourses collide to make the event of a discursive objects emergence possible (Hook, 2001).

By highlighting this sense of a discursive object emerging by chance, this technique subverts the notion that there was a perfect pre-existing meaning to that discourse. In other words, it overrides the possibility of ostensive definitions, of there being fixed inner essences to an object, and instead draws our analytical attention to the accidental assemblage of *external* (non-essential, non-fixed) causes.

Exteriority.

Rather than moving from discourse towards its interior, towards the ‘hidden nucleus’ at the heart of signification’, discourse analysis should move forward on the basis of discourse itself, on the basis of those elements that give rise to it and fix its limits: its external conditions of possibility. (Foucault, 1981, p. 67)

This principle, much like those above, points to a need to look beyond the text; it opposes essentialism, encourages consideration of materiality and the laterality of analysis. Specifically, the principle of exteriority refers to a need to analyse just that; the exterior conditions of possibility which make a discourse possible. As a methodological imperative it involves looking at the external processes which set and constrain a given discourse; the strength of such an analysis comes not from the depth at which the researcher enters a given text, but rather the extent of their sideways, lateral analysis.

Foucault argues strongly for the inseparability and interdependence of discourse and materiality. Hook states that:

[d]iscourse facilitates and endorses the emergence of certain relations of material power, just as it justifies these effects after the fact. Similarly, material arrangements of power enable certain speaking rights and privileges, just as they lend material substantiation to what is spoken in discourse. (2001, p. 540)

To fail to explore macro-elements in this way is to look only at discursive effects, and to fail to grasp its instruments. In other words; it is to look only at what discourse does at a minute level, but not how discourse is instrumental in various power relations; or the power relations that allow discourse to function in this way (Hook, 2001).

Ethics

My main ethical concerns for this thesis relate to the consideration of discourse on Māori underachievement in New Zealand. In Smith's (1998) book

about native schools in New Zealand she speaks extensively of the negative effects Pākehā research on Māori has wrought Māori communities. Mahuika (2008) cites Walker (1985) as saying

Māori education [has] become the hunting ground of academics as neophytes cut their research teeth on the hapless Māori. It has the advantage that Māori are in the subordinate position with little or no social power to keep out the prying Pākehās. Furthermore, being marginal to the social mainstream, Māori are not in a position to challenge the findings of published research, let alone the esoteric findings of academic elites. (p. 231)

Mahuika (2008) refers to both practices of Pākehā researchers misrepresenting Māori knowledge and a frequent recourse to 'deficit theorisations' to explain differences between Māori and Pākehā, as highly damaging practices.

There are a number of guides to research ethics when working with Māori. For example, Hudson and Russell (2009) have suggested a number of revisions to themes they identified in indigenous research ethics, which more directly involve principles found in the Treaty of Waitangi. However, these are somewhat difficult to apply in this approach, as I am not working directly with participants and the intended outcomes of this research are more abstract and theoretical. In other words, the results of my thesis would not have a direct or measurable impact on a group that I could consult with, so much as work to challenge dominant Pākehā perspectives on education and thereby clear space for Māori approaches to it.

Hudson and Russell (2009) acknowledge the importance of partnership between researchers and Māori, and Māori having involvement in the research processes. Again, this is somewhat difficult given the theoretical nature of my thesis and lack of participants or involved organisations to consult with. However, what I

can ensure is that my work theoretically syncs up with Māori scholarship on this issue. Indeed my work which seeks to challenge taken for granted assumptions within dominant Pākehā knowledge is both in accordance with Kaupapa Māori research and something which is called for by various Māori scholars.

More recently Māori academics have begun to challenge both the study of their people and the methods typically used by Pākehā researchers. Walker, Eketone and Gibbs (2006) state that

[a]fter World War II, when the rapid urbanization of Māori occurred, and there was an increased educational attainment of Māori, kaupapa Māori, or Māori philosophies and ways of doing re-emerged as a strong and legitimate project and began to influence education, politics and research. (p.332)

Kaupapa Māori research is described by Walker, Eketone and Gibbs as both a “form of resistance and a methodological strategy” (p. 331). Mahuika (2008) explains that Kaupapa Māori research challenges dominant research methodologies and claims to truth, in order to privilege a unique Māori perspective.

Inherent to Kaupapa Māori research then is a realization that Māori have a unique way of knowing and being, which is not reflected in dominant research methodologies, or the knowledges they produce. Mahuika (2008) explains that Kaupapa Māori research gives Māori a “platform from which Māori are striving to articulate their own reality and experience, their own personal truth as an alternative to the homogenization and silence that is required of them within mainstream New Zealand society” (p. 4). They surmise, as a result, that the underlying assumptions of institutions, such as academia, should not be assumed to be neutral and it should not be taken for granted that Pākehā have a distinct advantage in their participation in these institutions.

Although the majority of my analysis will focus on disrupting dominant Westernized knowledge on education, there will be some recourse to how Pākehā knowledge has overshadowed Māori views on education. This will involve looking at work completed by a number of Māori scholars and looking at instances where their knowledge has been subjugated or ignored. I will also be critically looking at scholarship which makes frequent reference to Māori underachievement and often frames Māori in deficit terms. Accordingly, there are a number of ethical considerations to be made. Without an official ethical guideline this is somewhat difficult, but it is possible to sync up my research aims with the aims of Kaupapa Māori research and base ethical objectives on the avoidance of past Pākehā researcher's mistakes.

As a critical researcher, researching in the context of Aotearoa, I must go beyond the methodological imperative to criticise dominant discourses more generally and be aware of the specific ways in which these discourses are intertwined with colonial relations in New Zealand. In New Zealand there is a history of dominant research discourses misrepresenting Māori, claiming to know and define Māori and invalidating Māori perspectives through their presentation of knowledge as neutral truths. As a Pākehā woman, without lived experience or even significant second-hand knowledge of Māori culture, I acknowledge I have no right to postulate or make suggestions as to how Māori education should progress and how underachievement should be viewed or addressed by Māori.

Much of the ethics in my approach then, will concern what I do not do. Namely, I will not delineate or set parameters for what Māori education can or should be. Equally I will be careful not to homogenise and reduce Māori to a set of Māori academics. I will aim to include Māori scholarship critically, as an example of Māori perspectives which have been subjugated, but be careful not to frame this knowledge as though it is representative of Māori as an entire body.

While I may paraphrase, extend, theorise and critique in relation to dominant research practices and knowledge (as a benefactor of Pākehā culture), I will treat Māori knowledge more carefully; presenting the knowledge as closely to its source material as possible. In order to avoid misrepresenting Māori knowledge or appearing an expert on it, I must remain vigilant in my treatment of it and aware at all times of both of my inability to fully grasp it as a cultural outsider and the possibility of reproducing colonial relations by attempting to define and know Māori as research objects.

A unique concern that arises for this approach is the use of Māori knowledge as a subjugated knowledge for methodological purposes. Not only must I be careful not to misrepresent Māori knowledge, but also that I do not use Māori knowledge in a way which is for my own purposes, but of no benefit to Māori. As stated previously, the use of subjugated knowledges in this approach is theoretically, to both undermine conventional power-knowledge, and to give the subjugated knowledges themselves more combative power. While this does sync up with Māori scholar's calls for challenges to Pākehā research approaches, I must also remain vigilant not to use Māori knowledge in a way which benefits myself or my argument, but which disrespects, misrepresents or misuses that knowledge in a way where only I would benefit from its use.

Analysis

Defining Underachievement

Before moving on to a more historical based analysis of the conditions of possibility surrounding underachievement, I think it is necessary to first explore current definitions of underachievement and the assumptions, themes and ideas which dominate research on it. This section will serve as a kind of springboard for

investigation and analysis moving forward, as I will begin to investigate the historical conditions for these assumptions, themes and ideas in the following sections. The clear themes which emerge in the analysis below are that underachievement tends to be conceived of as an output, as being connected to an individual's potential and as something which is testable and comparable through a set of universalized tests (i.e. tests which are applicable to and suitable for everyone).

While this section does not historically trace the emergence of underachievement per se, it does begin to adhere to some aspects of the methodological imperatives of discontinuity and specificity by breaking down the sense in which there is a kind of single universal meaning or ontological essence to 'underachievement' which we might pin down and easily study. It brings to the fore the struggle with defining and operationalizing such a concept. Plewis (1991), for example, presents an overview of the challenges of conceptually defining and measuring underachievement within more conventional post-positivist and quantitative modes of research. The work by Plewis is not critical or marginal, but rather highlights the difficulties acknowledged within mainstream approaches to research on underachievement.

The difficulty of operationalizing and measuring such a concept will not come as a surprise to many, and of course this difficulty does not rule out the value of such work per se. These difficulties are not significant because knowledge should be perfect, objective, or because there cannot be a process of trial and error; of negotiating difficulties before reaching a kind of 'better' knowledge necessarily, but rather because research objects such as underachievement take on a life of their own beyond within-discipline musings over them. The difficulty of defining, operationalizing, measuring and predicting underachievement is significant because these difficulties are not always made explicit beyond very local psychological contexts, despite underachievement as an object or label possessing enormous power.

The following section thus aims to make visible aspects of confusion, complication, negotiation and contradictions within the underachievement category itself, adhering to a broader methodological imperative to produce knowledge about power-knowledge which undermines its right to power. As will become clear, underachievement has no monolithic, universal, objective or uncomplicated definition, despite its treatment as such in public policy, politics and other arenas. Instead underachievement is a concept which requires numerous negotiations, adjustments, considerations and which is informed by a broad array of forces, pressures and assumptions. Latter sections will begin to illustrate the forces which constructed this concept in various ways (i.e. as being linked to IQ tests) and give history to the assumptions which underlie this definition. However, below I will focus on unpacking the assumptions to be explored and begin to undermine the right to dominance of current conceptualizations of underachievement.

Underachievement and potential. The Oxford Dictionary defines to underachieve as to “do less well than expected, especially in schoolwork” (2016). The Merriam Webster (2016) dictionary describes underachievement as not achieving as well as one might be capable of. The Free Dictionary defines to underachieve as to “perform worse or achieve less success than expected” (Underachieve, 2016). Implicit in all these recent dictionary definitions then, is a sense in which to underachieve is to fail to live up to one’s potential.

Gillies (2008) argues that modern definitions of underachievement are frequently linked to potential in this way. For example, Mcleod (1979) says “the commendable and unarguable aim of any self-respecting educational system is to help children realize their potential to the full” (p. 43). Dowdall and Colangelo (1982), in their research into ‘gifted underachievers’, state that a number of definitions of gifted underachievers exist in the research literature, but all link back to potential in some way. They state further that the main definitions of gifted underachievers refer to a discrepancy between either IQ, or some other measure of

potential (such as teacher expectation) and actual achievement output, i.e. performance on daily assessments, grade points or standardized test outcomes.

Psychological and sociological definitions of underachievement. There is no singular, consistently used definition of underachievement in the research literature. Despite this, Plewis (1991) argues that the main definitions of underachievement which are used in research might be grouped into 'psychological' and 'sociological' definitions. The psychological definition of underachievement he outlines is also linked to potential; in this case it refers (once again) to a discrepancy between academic attainment and IQ. So here, potential is operationalized as 'IQ' and underachievement is the failure to achieve the academic standards that are predicted for an individual based on their IQ.

Plewis (1991) states that there are a number of technical problems which arise with the psychological definition of underachievement; these include possible measurement errors, problems with assumptions of 'heteroscedasticity' (a consistent variation between IQ and underachievement), the confusion of a conceptual possibility of 'overachievement' under this definition, and issues with variation in the slopes of regression lines which represent different groups. .

Ultimately, Plewis (1991) concludes that the above are technical problems, which could theoretically be addressed, in his view, with the use of more sophisticated statistical analyses. But there remains a conceptual problem with this definition of underachievement which is much more difficult to address. Thorndike (1963, as cited in Plewis) has argued that

when we define 'underachievement' in terms of the discrepancy between an aptitude and an achievement measure, we do not know to what extent we have defeated ourselves at the very outset by using a controlling variable (aptitude) that already has in it too much of both the item content and the

personal history that appear in the achievement measure. (1963, as cited in Plewis, p. 383)

In other words, there remains the problem that practices which might relate to a person's IQ score (x) such as homework behaviours, reading regularly, having a good teacher, or even general proficiency with tests, could also determine a person's achievement output (y). So there is an extent to which both (x) and (y) are determined by other information, but that information could be very similar in nature. When using (x) to predict (y), you are using a controlling variable that may already contain much of the same content as the measured variable.

To put this problem differently; psychologists are using scores on one test to determine a person's scores on another test. Unless we adopt a view of IQ test scores reflecting entirely innate abilities which are void of any other influences, then this is a significantly confounding problem, as what affects a person's score on an IQ test could presumably very easily affect their scores on an achievement test. The validity of this definition might be argued to rest on the simplistic assumption that it is entirely intelligence or cognitive abilities which are determining scores on both tests.

The definition of underachievement which is typically adopted by educational sociologists and educational psychologists is somewhat less subject to conceptual confusion and technical problems. Plewis (1991) says that under this definition "[s]ocial and demographic groups with mean achievement or attainment test scores below the mean for a selected reference group are said to underachieve, regardless of their mean IQ" (p. 377). Underachievement is thus determined by a group's relative position to other groups, and there is an assumption that all social and demographic groups should achieve uniformly with their peers. This approach to defining underachievement focuses only on groups, while making no inferences about individuals in those groups. The regression, or psychological definition, on the

other hand, measures individuals, and through those measures makes inferences about groups.

These definitions would not necessarily conflict with one another in terms of their inferences at the group level, provided academic potential is spread uniformly across social groups. Plewis (1991) suggests, however, that IQ measures are not evenly spread across social groups (an issue which will be explored in later sections of this analysis), so if one assumes IQ is an adept measure of academic potential, then these two definitions are not quite so compatible. As an example he argues that attainment scores of Afro-Caribbean students are lower than those of white British students, thereby fitting the relative position or sociological definition of underachievement. However, a study using a regression method for determining underachievement, found no evidence that Afro-Caribbean students underachieve, as it found no discrepancy between their academic potential (as predicted by their IQ scores) and their actual academic attainment (Swann Report, 1985, as cited in Plewis, 1991).

Unpacking these definitions. The psychological definition of underachievement, based on a regressive approach, assumes that one's IQ score is isomorphic with their academic potential. Underachievement is thus a failure of one's academic output to sync up with their potential (as determined by a measure on an IQ test). Under this view academic potential is localized primarily within the individual themselves (as cognitive abilities which relate to intelligence) and accordingly it makes more sense to assume academic potential could have a uniform distribution across students. It is assumed that potential (innate cognitive abilities measured by an IQ test) should map on to output (academic tests of varying kinds); underachievement, under the psychological definition, is the disjunction between potential and output.

In order for the psychological definition not to be confounding, one must assume that IQ tests are at least primarily measuring a kind of innate intelligence

which exists in the individual and is not significantly altered by the same external variables academic output would be. It is because of the assumption intelligence is singular and innate that it makes sense to measure potential in this way; if all individuals possess such an innate, uninfluenced and universal sort of intelligence then it follows that this could be measured with a universal test. Further, it follows that this test could be culturally neutral, as it pertains to a model of intelligence which could be cross-cultural and universal.

Following from the above assumptions one can assume that potential (and thus academic output) should be uniformly spread across the population. In other words, if the intelligence measured by IQ is innate, you could expect a similar dispersion of academic potential across different social demographics. Of course, for the comparison between these groups (as in the sociological definition of underachievement) to make sense, there must also be an assumption that demographic groups can be treated as homogenous wholes; i.e. that it is meaningful and valid to compare the output of 'girls' as a whole, against 'boys' as a whole.

If it were assumed that academic potential was heavily determined by more external variables such as developmental factors, SES, educational histories of student's parents, or cultural affiliation with a school curriculum or test, then it would make less sense to assume academic potential has an equal variance across social groups, as different social groups might have more heavy concentrations of these variables. Indeed this is what findings using the sociological definitions of underachievement might be taken to suggest, as they illustrate that mean achievement outputs can differ across social groups.

In order for one to be a loyalist to the psychological definition, without denying the existence of achievement differences between social groups (as demonstrated under the sociological definition), they would have to conclude that their definition of underachievement is confounded (fails to account for a variety of

other influences on achievement). Recall that this confounding would occur because external variables which could determine how one succeeds on an IQ test, could also presumably determine how they score on achievement tests (given the similarity of the measures). Alternatively, they could conclude that IQ is not uniformly distributed across social groups.

From a conclusion that IQ is not evenly distributed across social groups, loyalists to the psychological definition could come to two further conclusions. Either IQ tests are not a perfect measure of intelligence, perhaps because they measure only a specific brand of intelligence, and thus not all social groups would be expected to produce uniform IQ scores (as social groups can have different values around what constitutes intelligence, or which cognitive abilities ought to be the most salient). Alternatively, IQ is an apt measure of intelligence and some social groups possess more 'intelligence' than others. If the former were assumed, however, then it is strange to imagine someone who thinks IQ tests measure only one model of intelligence could also think they should be used as the main predictor of academic achievement, or as the sole definition of potential. If one assumes the latter, and that social groups must differ in terms of their intelligence, then the sociological definition of underachievement is not incompatible with this assumption.

The psychological definition of underachievement, combined with the existence of variations in social groups achievement (under the sociological definition) confines one to some very narrow conclusions, if they wish for the psychological definition to be logically consistent with other findings and not a confounding measure in itself. Of course, my argument is not that either of those narrow options must be empirical realities, rather, that they become necessary conclusions if we are to accept both psychological and sociological definitions of underachievement and findings produced under these operationalizations. My reason for unpacking these assumptions is to begin to illustrate that the current definitions of underachievement are far from objective or unproblematic. Rather,

they involve choices about what should be considered salient features of 'underachievement' and those choices are not necessarily the same across disciplines, or without considerable conceptual and technical problems. These narrow conclusions will also be fleshed out and given historical background in latter sections of this analysis.

What also becomes clear when unpacking these definitions is the myriad of assumptions current ways of defining underachievement rest on, for example, the idea that people possess a particular kind of innate intelligence, that intelligence is universally testable, that it makes sense to treat and compare groups as homogenous sort of entities. These are the sort of assumptions which Foucault might describe as becoming so normalized they become difficult to see. Before giving some historical background to the convenience of these assumptions, I want to look at evidence produced within mainstream psychological research which challenges the validity of the psychological definition. Namely, evidence which suggests IQ is far from the only determinant of academic achievement.

Predicting achievement. Smith (2003b) has also explored the lack of agreement on a conceptual definition of underachievement and surmised that researchers have explained this lack of consensus as being due to the difficulties with defining related concepts such as potential, intelligence or giftedness, as well as how much difference or discrepancy between measures should count as 'underachievement'. Put differently; there is not just difficulty with defining underachievement, but also the concepts it hinges on and the fact it requires those in charge of definition to draw a line somewhere, to say 'this is the point on a scale at which it becomes underachievement'. Smith draws on Thorndike's (1963, as cited in Smith) argument that the problem with current definitions of underachievement are their overemphasis on IQ tests, while failing to consider a wealth of other factors which could affect one's achievement output.

Smith (2003b) asks: if it were possible to create a perfect model for predicting achievement, would underachievement become an irrelevant concept? If such a model existed, there would no longer be discrepancies between predicted achievement and actual achievement output, and thus no discrepancy to label 'underachievement'. Her thought experiment draws attention to the sense in which underachievement (under the psychological definition) is a kind of artefact of an imperfect predictive system and the way in which psychological power-knowledge has constructed underachievement. The supposed pathological failing which is underachievement (the 'pathology' of which will be explored in later chapters) is the disjunction between psychology's imagining of academic potential and academic success or achievement. Would one be said to underachieve if potential and intelligence were imagined in different ways? Or if they were not relevant concepts at all?

The possibility of a perfect system for predicting academic achievement seems highly unlikely, however. Smith (2003b) points out that a number of researchers have cited Thorndike's (1963, as cited in Smith) suggestion to include 'stable relatively unmodifiable factors' in considerations of academic potential. These include factors such as SES, family background, parental education and sex. But this would be a significant undertaking for any researcher, not just in terms of the statistical modelling necessary, but because of the sheer breadth of pre-existing research on variables which affect achievement. It is beyond the scope of this thesis to review all research on variables which have been found to predict achievement in depth, but as an illustration of the breadth of possible influences I will briefly outline some research on possible influences below.

Diseth and Martinsen (2003) have conducted research which found links between approaches to learning, motives, cognitive styles and ultimate achievement output. Musgrave-Marquart, Bromley and Dalley, (1997) have found a significant relationship between personality factors such as neuroticism and

conscientiousness, as well as significant negative correlations between alcohol, nicotine and academic achievement. Pintrich and de Groot (1990) conducted a study which suggested that self-regulation, self-efficacy and test anxiety were strong predictors of academic performance. They also found that intrinsic value (while not directly affecting academic performance) had an impact on variables which did directly impact performance, such as self-regulation. Likewise Klomegah (2007) found self-efficacy to be a strong predictor of academic performance, and argue this is in line with previous research which links individuals' beliefs in their academic ability to their ultimate academic performance.

DeBerard, Spielmans and Julka (2004) found that a model using a number of psychosocial variables as predictors (i.e. drinking habits, smoking and social support) enhanced the effectiveness of using the more common college achievement predictors (such as high school test results). Robbins et al. (2004) conducted a meta-analysis of studies using psychosocial variables and 'study skill factors' and found that self-efficacy and achievement motivation were the greatest predictors of academic achievement in university. Their findings were that academic goals, social support, social involvement, institutional commitment, academic self-efficacy, financial support, institutional selectivity and academic related skills all positively correlated with college retention. While academic self-efficacy and achievement motivation were the strongest predictors of college grades out of the variables examined, when used alongside high school grades and standardized test scores.

Studies have also found there may be differences in which variables best predict achievement outcomes for different groups. For example, Sue and Abe (1988) conducted a study on variables which predict academic achievement in college students, namely 4113 Asian American students and 1000 white American students. They found differences in the predictive abilities of variables between Asian and white Americans generally, and between different Asian nationalities. The

researchers concluded that applying a regression analysis, which has successfully been used to predict white students' scores, revealed a number of biases when applied to Asian American students as a whole group. Namely, it over or under predicted the achievement of different Asian nationalities within the Asian group as a whole.

Nasim, Roberts, Harrell and Young (2005) argue that evidence for using cognitive ability as a predictor of academic success has been inconclusive for African American students because such predictive models fail to consider other factors African American students must contend with. For example, Steele and Aronson (1995) found African-American students were affected by 'stereotype-threat', a phenomenon where performance on tests is thought to be affected by the threat of being perceived in line with pre-existing negative stereotypes. In this case; the African-American student as the 'underachiever' or as a group which performs poorly on formal tests.

So not only is there a wide array of possible influences on academic achievement (according to mainstream research literature on this topic), but there are also variables which moderate other variables, and differences in how some variables interact with or affect certain social groups. We might also consider the way some variables could vary historically and geographically, for example, a stereotype-threat may be less of an influence in places or times when negative stereotypes about certain test takers do not exist and this phenomenon may vary across time as stereotypes do. Smith (2003b) also points out the vast number of unstable factors which would prevent a perfect predictive model from ever getting off the ground, such as the amount of sleep a student had the night before a test (which indeed could affect both IQ and academic output). Developing a perfect model for predicting achievement would undoubtedly be an extraordinary task.

Perhaps this goes some way towards explaining why, as Smith (2003) says, Thorndike's work on accounting for other stable predictors of achievement is

extensively cited, but very rarely acted upon. All of this adds a new angle to the considerations in the 'unpacking sociological and psychological definitions of underachievement'. These studies on underachievement point to a widespread acknowledgement of the idea achievement is in fact moderated and affected by variables other than IQ. Indeed the concept of underachievement in the psychological definition is defined as the group for which IQ fails to predict achievement, so one could argue that some expectation of the failure of this predictive model is embedded in the definition of underachievement itself (and as we will see this concept emerged from a realisation of such failures).

The presence of such research certainly throws the validity of the psychological definition of underachievement into contention, given that it points to a variety of influences which could determine both IQ scores and achievement output. For example, self-efficacy and test anxiety could arguably affect both measures. Further, the presence of group specific phenomena such as stereotype threat could lead to some groups performing differently to others on both measures. But the point I wish to make with this is not an empirical one; I am not pointing to these studies to get to the truth of how we ought to predict underachievement. Rather, I wish to draw attention to the focus on IQ within definitions of underachievement, despite a large array of problems with doing so. These problems, it should be noted, are not confined to the margins; as evidenced above it is mainstream psychological research itself which has found a number of possible influences which could affect both IQ scores and achievement output.

In summary, what emerges in the exploration above is a clear and notable emphasis on the notion of potential being linked to achievement. Achievement itself is considered an output (i.e. a result on a test); rather than a process, likewise there is a heavy emphasis on testing and measurement (i.e. IQ tests being used to predict performance on academic tests). There is an assumption that both achievement and potential can and should be measured, and that tests exist which are capable of

this job. There is a clear drive to be able to predict achievement output. And finally, it is thought valuable and meaningful to compare how different groups measure on the same achievement tests (and thus assumptions about the universality of such tests).

Conditions of Possibility

Why has a focus on IQ, potential, group comparison, outcomes and testing come to dominate the way underachievement is defined? Through a broad look at the historical events surrounding education from the 1800's and onwards, a clearer picture of the above listed focuses and assumptions emerges. Namely, the historical analysis which follows illuminates the sense in which IQ, achievement outputs, tests and social group comparisons became foci of underachievement research and definitions, not simplistically due to logical and objective progressions in research, but rather due to socio-historical located conditions and pressures.

The conditions of possibility for underachievement in the US. The emergence of underachievement, along with the beginning of an alliance between psychology and education as academic disciplines, is perhaps most easy to trace in the events from the late 19th century onwards in the United States. Clarke, Madaus, Horn and Ramos (2000) argue that poorly performing students did not provide a significant challenge to schooling in the US during the 19th century. While examinations did exist and were used in some academic contexts during this time (Danziger, 1994), examination results were not particularly significant. The labour conditions in the US during this time, meant that students who did not do well in formal education were still able to obtain employment and achieve recognition through means other than schooling, rendering academic achievement a less important consideration (Deschnes, Cuban and Tyack, 2001).

Towards the end of the 19th century, however, changes in child labour laws and the emergence of a belief that schooling should be a more universal requirement for children meant that how one performed at school was becoming an increasingly important consideration. The industrialization which began in the 19th century saw the employment market change dramatically. Corporations began to expand, rendering entry into the market or entrepreneurial business ventures risky endeavours. The existence of large scale corporations (which were of course in need of employees, rather than employers) made becoming an 'employee' a much safer bet (McNamee & Miller, 2009).

During the expansion of schooling to a much wider population schooling practices shifted to being more bureaucratic and administration heavy uniform curriculums, age graded schools and annual examinations began to take place. Failing or passing these tests and progressing to the next age grade meant achievement (or a pass grade on a test) emerged as a label or signifier with significant power (Deschenes, Cuban and Tyack, 2001). But the growing relevance of achievement as a concept did not lead to an immediate concern about underachievement by any means. Labaree (1988) argues that failure was an expected outcome for some students, as it indicated the standards of testing were set high enough.

Foucault himself has commented on the changes that education undertook in the 19th century. Stojnoc, Dzinovic and Pavlovic (2008) state that the 19th century saw the advent of 'pan education' (a shift to education being open to multiple and diverse citizens, rather than a privilege enjoyed only by the already culturally elite). This diversification of the student body, however, was not followed by a diversification of pedagogy; instead this expansion of the student body co-occurred with a bureaucratization of educational process. It was during this time that pedagogy began to be developed as a scientific discipline, and administrative practices were developed to record and surveil student behaviour (Foucault, 1977).

Stojnoc, Dzinovic and Pavlovic (2008) state that during the process of pan-education, or the opening of education to a diverse student body, the educational system became

a governmental matter, a systematic and continuous project of taking care of the lives of citizens. Overall surveillance of individual behaviour was to be completed by introducing compulsory education and a uniform curriculum. Consequently, detailed registration records appeared, starting a history of school records, registers, files and profiles - in essence, a whole new methodology of control that allowed insight into the lives of pupils. Gradually, discipline took the place of physical punishment, which became mostly prohibited in schools. (p. 45)

The development of pedagogy as science, of routine systems of monitoring, distribution and control made physical punishment unnecessary. Punishment was able to occur in a more complex manner, with permanent marks placed against the 'underachiever' on their record, limiting and affecting their distribution through grades, schools and later in life employment outcomes.

The new managerial and administratively heavy style of schooling allowed for the production of 'docile bodies'; a population which is "more educated, more manageable, and economically productive" (Stojnoc, Dzinovic and Pavlovic, 2008, p. 45). Theoretically what was meant to be an act of inclusion (the opening of education to those other than the elite), could also be considered a way of managing those outside this 'elite' bracket; a way of increasing their productivity and economic output (and thus better serving state interests). Foucault (1977) argues the new pedagogy forming at this time simply reified middle-class values and entrenched them as the 'norm' within education. What constitutes this 'norm' will be considered more deeply further in, but for now it is pertinent to consider the

importance of 'testing' to the development of what Foucault describes as a disciplinary system, emerging in and around education.

Education and the labour market. At the turn of the 20th century the use of testing and grading pupils had become a means for educational administrators to streamline their sorting of pupils into labour markets and further education; it allowed the 'efficient' processing of students according to their now measured potential. Educational credentials also became a means for employers to evaluate a student's potential for success in a given position and

McNamee and Miller (2009) state note that the increasing dominance of 'credentialism' (or the belief educational qualifications indicate a person's suitability for a job) was "fuelled primarily by the growth of large organizations to find efficient ways to process people and to fill positions" (p. 111).

It was not just the educational skills or learning indicated by credentials which employers were looking for, however; a student's attainment of credentials was also thought to indicate that they are 'low risk' employees (Blackburn and Mann, 1979). Having successfully undergone and achieved within the process of schooling, indicated that an individual was able to be disciplined, responsible, have manners, decorum and steadiness (all of the values and behaviours reified within schooling) (McNamee and Miller, 2009). Foucault (1977) has pointed out the expectations of behaviours within schooling, such as raising one's hand to speak, or sitting up straight, might be considered as demonstrating a student's' ability to behave in line with regulated communication practices, to act with decorum, to respect authority and generally behave in a 'disciplined' manner. Thus the attainment of educational credentials (through a schooling system based on middle class values) became a way for employers to verify a student's ability to behave in a disciplined manner.

The testing movement. Lagemann (2002) marks the early 1990's as the beginning of an increased proliferation of both the creation and use of standardized

achievement tests. The 20th century in the US was a time of frequent expressions of discontent with public education and this discontent created a demand for tests which were capable of making education more 'effective and efficient' (Clarke, Madaus, Horn and Ramos, 2000). Indeed Pellegrino, Chudowsky and Glaser (2001) describe the purpose of the exam as allowing "external authorities to monitor school systems and to make it possible to classify children in pursuit of more efficient learning" (p. 25). Tests began to be seen as a means of measuring improvement brought about by educational reforms (Clarke, Madaus, Horn and Ramos, 2000), with Moss, Pullin, Gee and Haertel (2005) going so far as to say educational reform eventually became synonymous with improved test scores.

Shepard (2000) states that the ideas which dominated the early 20th century in the US, were those of 'social efficiency', 'scientific management', hereditarian views of individual differences (i.e. IQ) and theories of learning inspired by the behaviourist movement in psychology. They point out that the

social efficiency movement grew out of the belief that science could be used to solve the problems of industrialization and urbanization. According to social efficiency theory, modern principles of scientific management, intended to maximize the efficiency of factories, could be applied with equal success to schools. (p. 4)

Callahan (1962) echoes this sentiment, and notes that the role of school administrators during the early 20th century (and their expected conformity to values of efficiency) was compared to the industrial task of 'shaping steel rails' (Bobbitt, 1913, as cited in Callahan, 1962). Scientific management, formerly used in industrial settings, began to be applied in educational contexts, bringing its focus on outcomes, comparison of outcomes and 'efficiency' of process to schooling (Spaulding, 1913, as cited in Callahan, 1962). Education began to be expected to

run like a business, to be economic, efficient, practical and in some cases subjects such as classics were cut in favour of subjects that had a more direct relationship with industrial values (Callahan). Thus we can see why testing (a means of measuring and comparing output and using that data to increase 'efficiency') rose to popularity as an educational practice.

Psychological theories of learning and testing. Psychological theories of learning during the early 20th century started to align with the process of testing. Learning, it was theorised, occurred in a step-wise nature, with each step needing to be taught in order for a pupil to progress to the next stage. Skinner (1954), a well-known proponent of the behavioural psychology movement, is quoted as saying

[t]he whole process of becoming competent in any field must be divided into a very large number of very small steps, and reinforcement must be contingent upon the accomplishment of each step. This solution to the problem of creating a complex repertoire of behaviour also solves the problem of maintaining the behaviour in strength. By making each successive step as small as possible, the frequency of reinforcement can be raised to a maximum, while the possibly aversive consequences of being wrong are reduced to a minimum. (p. 94, as cited in Shepard, 2000)

Shepard (2000) describes the assumptions inherent in behavioural psychology's view of learning as follows:

1. Learning occurs by accumulating atomized bits of knowledge;
2. Learning is tightly sequenced and hierarchical;
3. Transfer is limited, so each objective must be explicitly taught;
4. Tests should be used frequently to ensure mastery before proceeding to the next objective;

5. Tests are isomorphic with learning (tests = learning);
6. Motivation is external and based on positive reinforcement of many small steps. (p. 5)

Tests thus had an important functionality within the behavioural psychology imagining of learning; they were a necessary part of learning and indicating mastery of a key step in this process. Note that this 'step-wise' process mirrors the way schooling had begun to be structured (as an age-graded system with tests necessary to progress to next levels). Testing, of course, also greatly benefitted educational administrators and their desire to manage, organise and process students as efficiently and according to principles of scientific management. Why is there such a convenient aligning here, between the theories of learning and technologies of testing produced by psychology, and the needs of educational administrators?

The changing relationship of education and psychology. The relationship between psychology and education in the early 20th century is an important one to understanding the conditions of possibility which made underachievement a relevant concept. In the early 20th century psychology was struggling to establish itself as a serious scientific discipline within burgeoning research universities. Psychology thus sought to produce socially useful and marketable knowledge/methods, as well as align itself with the increasingly popular empirical style of research. Education, and its expanding pedagogical science, was in the market for tools which helped with educational administrators needs to manage a growing school population. Thus a new alliance between psychology and education began to form; one which would prove pivotal for the direction of both (Danziger, 1994; Rose, 1996).

Lagemann (2002) states that it was 1876 when schools of education began to open up within research universities in the US. This led to the development of

research material surrounding curriculums, as well as theories about the purpose of education and the function educational administrators should have. An increased trust in empirical science during this time, along with a strong pressure to improve education, promulgated the development of pedagogy as a form of science. Education became something to be studied and increasingly improved through the use of formal scientific methods. A growing body of educational scientists began focusing on the 'quantification' of education and identifying invariable laws to help create formulas for effective learning and administration (Lagemann).

Danziger (1994) describes education during the time period proceeding the turn of the 20th century as having a high demand for knowledge which assisted its goals of categorizing and processing students in an efficient manner. Prior to the 20th century psychology's alliance with education mainly involved the use of psychological census-taking for educational purposes, but this was an alliance which did nothing to "enhance psychology's status as a science" (Danziger, p. 103). From the early 20th century onwards, however, psychologists started producing a wealth of material relevant to the booming field of educational administration. This relationship proved advantageous for psychology as a discipline; as it was under significant pressure to establish itself as a serious academic discipline within research universities (Danziger).

Danziger (1994) provides a full outline of the psychological research practices which dominated prior to its teaming with education and the advent of 'psychometrics'. He argues though, that by the turn of the 20th century

[p]sychology ceased to be a purely academic discipline and began to market its products in the outside world. That meant that the requirements of its potential market were able to influence the direction in which psychology's investigative practices were likely to develop. Practices that were useful in the construction of specific marketable products were likely to receive a

boost, whereas practices that lacked this capacity were henceforth placed under a handicap. (p. 101)

Danziger also goes as far as to argue that practices which are now entrenched within psychology, that of focusing on individual differences and the use of experimental treatment groups, would not have been nearly as significant or meaningful within psychology's development were it not for the pressure to develop 'marketable methods'. It was during this new alliance between psychology and education that traditional psychological experimentation began to be replaced or merged with psychometrics, mental testing and correlational statistics (Danziger; Cronbach, 1957).

These new methods of psychometrics, mental testing and correlational statistics were ideal for educational administrators of the time, who, of course, had the goal of managing education in a scientific fashion. Methods of individualized testing and comparison provided scales which could measure and compare the performance of students, thereby allowing the effective 'scientific management' of pupils (recall that the focus of scientific management was on outcomes, comparison of outcomes and 'efficiency' of process). Danziger states that educational administrators were interested in information about people "only insofar as it pertained to the categorization of individuals in terms of group characteristics" because "[d]ealing with individuals by categories constitutes the essence of administrative practice" (1994, p. 105-6), and the blossoming methods of psychometrics and mental testing were ripe for this purpose.

The rise of individual psychology. It was the above conditions which pathed the way for the growth of mental testing and psychometrics as a means of measuring and comparing individual difference. Cyril Burt, a well-known psychologist, said in 1927

[t]he psychology of education, of industry, and of war, the study of the criminal, the defective and the insane, all depend for their development upon a sound analysis of individual differences; and the investigation of the more practical problems has already begun to pay back its debt, by furnishing fresh data of the utmost value to the mother science. And so at last we have seen the birth of the youngest member in the list of sciences -- the psychology of the individual... It aims at almost mathematical precision, and proposes nothing less than the measurement of mental powers. (as cited in Rose, 1985, p. 90)

In 1913 Burt had been charged with evaluating students deemed 'mentally defective' or 'feeble minded'; a condition which Rose (1985) describes as allowing psychology to make its inroads into educational administration.

The individual psychology which formed seemingly as a result of such social problems was not like the individual psychology which preceded it, however. While branches of psychology such as phrenology did focus on individual difference, what set this new direction of individual psychology apart was its focus on measuring individual differences in "restricted situations" (Danziger, 1994, p.107). Influenced by the previously mentioned pressures to appear scientific in nature, a view emerged that that the best way to measure individual differences in psychology was by comparing how people perform on uniform tasks (i.e. tests), while previous research which examined differences in facial expressions and artistic styles were side-lined due to their 'unscientific' status (Danziger).

Prior to this point there was somewhat of a tension within psychology regarding whether a focus on individual differences or human variety was the way forward. With the opening of a market for psychometrics and mental testing, we might argue that the former won out. While previous ways of studying individual difference within psychology sought to typify or categorise differences, mental

testing was very much about comparing these individual differences according to a 'norm'. As Danziger (1994) says, measuring individual difference became about "specifying the individual's position with respect to an aggregate of individuals" (p. 108). He argues that the validity of mental testing rests on the assumption that it is qualities people share with others (rather than unique qualities) which are of the greatest importance. Mental testing assumes there is a kind of universal norm or set of shared qualities which are valid and meaningful to compare individuals on.

Individual psychology formed around the 'problem' of pathology i.e. social issues such as 'idiocy', 'mental defect' and 'feeble mindedness' (a full history of which can be found in Rose, 1985). Rose (1996) argues that psychological research in general was developing itself during this time around a 'pole of abnormality'. It was psychology's proposed ability to deal with the 'problem of abnormality' which gave it enormous social value and application. For example, Rose (1985) provides a detailed history of the various approaches and social problems thought to emanate from the presence of 'idiots' in society. Individual psychology made it possible to

redefine the problem of institutions, or even the problems of society, as individual problems. If all social problems were nothing more than the aggregate of individual problems, they could be handled by appropriate treatment of individuals and required no questioning of the social order. (Danziger, 1994)

Rose (1996) suggests that psychology's vision of normality might be considered simply 'a lack of abnormality'. They argue that during the emergence of individual psychology abnormality came to be defined simply as the characteristics which needed to be regulated within a given socio-cultural matrix (i.e. characteristics or behaviours which were inefficient or costly).

Summing it all up. Earlier I asked why a focus on IQ, potential, group comparison, outcomes and testing had prevailed. When one begins to connect the above strands together the prevalence of these assumptions and themes becomes clearer. The above strands are only briefly touched on; future genealogies could also seek to trace the emergence of principles of scientific management, behavioural psychology and a number of other important links in the formation of underachievement. My aim here, however, is not to construct a perfect alternative history, so much as strategically show conditions of possibility which put conventional knowledge in a new light. Below I list a number of the important points and conditions which no doubt shaped the form/s underachievement has come to take:

- Underachievement did not exist as a relevant or considered concept before the advent of pan education, industrialization and changing labour conditions which made becoming an employee a safer bet than entrepreneurship.
- With pan education came an increasingly managerial and administrative mode of schooling; education began to function to produce an economically productive and disciplined population of employees.
- Credentialism became a means for employers to evaluate a student's potential for given employment positions.
- Dissatisfaction with public education helped to promulgate the use of testing as a means of evaluating the success of school reforms.
- The idea that schools ought to be run like a business began to dominate, with principles of social efficiency and scientific management being adopted for this purpose.
- Scientific management, with its focus on the outcomes of students, comparing and contrasting those outcomes in order to process students efficiently, became a dominant value in the early 20th century.

- Psychological theories of learning which dominated in the early 1900's viewed learning as stepwise in nature, with the use of tests needed to indicate mastery and progression to a next stage.
- There was a need for psychology to establish itself as a serious discipline within research universities, as well as an increasing trust in empirical science.
- There was a notable desire and demand for psychological knowledge which was socially useful and marketable, such as dealing with the problem of 'mental deficit'.
- A growing body of educational administrators produced a demand for knowledge which helped them to categorize and process increasingly large and more diverse student bodies.

Modern psychometric testing

History is the most fundamental science, for there is no human knowledge which cannot lose its scientific character when men forget the conditions under which it originated, the questions which it answered, and the function it was created to serve. A great part of the mysticism and superstition of educated men consists of knowledge which has broken loose from its historical moorings. (Farrington, 1949, as cited in Levine, p. 228)

By the 1970's Levine (1976) noted that the 'validity' of the achievement test used in educational purposes was unquestioned in public discourse. Levine asked:

Is the unquestioned position of the achievement test attributable to its proven excellence? Does it dominate public and professional discussion of

education on its own merits, or does it serve a set of latent social functions which assure its acceptance and limit criticisms? (p. 228)

Since Levine's statement and questioning of the dominance and accepted status of testing in schools very little has changed. Testing in schools derived from the early 20th century psychometric theory continues to prevail and fails to be questioned in more public discourses about education.

There is much work done in the academic sphere, however, on the various failings of psychometric testing; its current incompatibility with modern psychological knowledge, the difficulty of setting cut off standards on tests and general problems with the use of psychometric testing for educational assessment purposes. I have elected to include the following critiques of psychometric testing given the centrality of testing to determining 'underachievement' as it currently stands.

Problems with current assessment practices. Danziger (1994) explains that the 'mental testing which arose during the early 20th century typically involves the measuring of an individual on a given test, followed by the comparison of that individual's score with other test-takers. The development of 'norms' on tests allows individuals to be categorized according to where they sit with an assumed normal distribution of test takers. He argues that such testing was no doubt inspired by the intensifying view that humans possess a biologically innate 'intelligence'. The view of a kind of universal biological intelligence, as well as assumptions that human differences are normatively spread essentially, gave license to grade "the entire population as though they were members of one school class" (Danziger, p. 109).

Moss, Pullin, Gee and Haertel (2005) state that the influence of the psychometric movement remains strong in the US today, with standardized tests derived from this discipline still being used to monitor students, the success of public policies and create "routine classroom practices that emulate standardized testing" (p. 65). They contend that

[t]hese beliefs and practices, informed by psychometrics, have become so deeply ingrained in the American educational system that it has become difficult to see them as choices arising in particular sociocultural circumstances or to imagine that things could be otherwise. (p. 66)

Moss, Pullin, Gee and Haertel (2005) also point out that (as with many disciplines) psychometrics treats some features as salient, while ignoring others. As a social science it must be acknowledged that psychometrics is interpretive; it assigns certain meaning to results, focuses on a given set of variables and excludes others. Equally it should be noted that the knowledge produced by psychometrics goes on to have very significant meanings within the social world; “as the practices and results of social scientific research are encountered and interpreted, they can and do shape this social reality (for better or worse, whether intended or not) partially in their own image” (p. 67).

A board on the National Research Council in the US called the Committee on the Foundations of Assessment submitted a report edited by Pellegrino, Chudowsky and Glaser (2001) which argued that many aspects of modern testing and assessments in education mirror early assumptions in psychometric research. For example, it is assumed (in line with behavioural theories outlined above) that people learn in a stepwise fashion, accumulating information, in order to move up a scale of proficiency. Pellegrino, Chudowsky and Glaser state that as a result of this

assessments tend to include items of factual and procedural knowledge that are relatively circumscribed in content and format and can be responded to in a short amount of time. These test items are typically treated as independent, discrete entities sampled from a larger universe of equally

good questions. It is further assumed that these independent items can be accumulated or aggregated in various ways to produce overall scores. (p.26)

Modern assessments also make assumptions that people have 'fixed dispositions' which make them consistent across different contexts. In other words, it is assumed that an individual's performance on a test refers to an innate characteristic of that individual, one which will remain consistent across different contexts (Pellegrino, Chudowsky and Glaser, 2001).

Nearly a century later, the ideas and assumptions which mental testing was founded on can be seen within modern educational assessments. However, as stated, some of these ideas and assumptions have become out of step with mainstream psychological knowledge. For example, Lave (1988) recounts evidence that mathematical performance varies across context. She details research which has found people who did not achieve at formal mathematics within school and laboratory contexts could use mathematics effectively in everyday situations, such as in the supermarket. Lave argues that it is commonly believed both that the mathematics used in school is the only kind of mathematics and that people who are not able to perform mathematics in school are often not able to perform mathematics in other situations either; these assumptions, however, are not supported by evidence.

Lave (1988) positions cognitive psychology movements (which have come to dominance in the years following behavioural psychology) as acknowledging a necessary duality of a person; an intricate connection between the individual and their society/ context. The individual, she states, internalizes and acts upon the cultural values and norms of 'place'. Pellegrino, Chudowsky and Glaser (2001) offer examples of studies, similar to that Lave (1988), which show the development of traditionally educational skills in non-educational contexts. For example, one study found people who worked in packing crates developed advanced mathematical

reasoning which helped them make efficient use of packing space. Accordingly they argue that the “rewards and meaning people derive from becoming deeply involved in a community can provide a strong motive to learn” (p. 89).

Ultimately, the report by Pellegrino, Chudowsky and Glaser (2001) reveals that the ways in which psychometric tests take up a decontextualized view of the individual and of the individual as learning in an incremental stepwise fashion are now out of step with advancements in cognitive psychology, the situative perspective, understandings of the role of social context in learning and more general learning theory (such as how expertise is developed and how knowledge transfer takes place). They state that while some advancements have been made in adapting assessment methods to advancements in psychological knowledge, measurement methods and theory, these have been ‘limited in scale’ (p.31).

There are a number of more general critiques which have been levied against the use of psychometric assessments in school too. For example, Pellegrino, Chudowsky and Glaser (2001) summarize a number of concerns with current educational assessment practices which are based on psychometric principles. Primarily they argue that traditional assessment practices leave out a number of aspects of learning which are now considered important (i.e. use of strategies and organization of knowledge). This then has a flow on effect with the inferences which can and should be drawn from results on tests, as do problems of ‘teaching to the test’. They argue that while many educational reforms seek to improve the learning of students, particularly underachieving students, most assessments only provide a very limited amount of information about a student and are not capable of informing strategies on how best to modify learning and teaching practices towards the ends of many educational reform programmes.

According to Pellegrino, Chudowsky and Glaser (2001), one of the primary ways in which commonly used tests fail to provide necessary information, is that they indicate only where students stand in relation to their peers, but not how or why

students may underachieve. For example, are they using misguided strategies in reaching an answer on a test? Further, students can appear to have learnt a concept on a test, but lack a deeper understanding of the concept they are being tested on. Dominant assessment methods provide only a 'snapshot' of information, they indicate whether a student can 'achieve' as an output on a test, but not the process by which they achieve, or the progress which their learning has followed.

We might argue then, that the problem of using tests which have such a heavy emphasis on output is that they exclude other information such as the growth, changes and the means by which that output is reached. Pellegrino, Chudowsky and Glaser (2001) contend that the process by which students accrue knowledge is 'the heart of learning' and traditional assessments fail to capture this progress because they are not underpinned by any theoretical framework of how students learn certain content throughout an educational programme. The lack of this information is significant, as it gives reformers and teachers no guidance as to why and how certain people underachieve.

A number of researchers in the area of psychometric assessment have also expressed concern about 'teaching to the test'. For example, Shepard (2000) and Linn (1987) have spoken of the ability of large scale test results to be corrupted and also of testing to corrupt the learning which takes place in a classroom. Likewise Pellegrino, Chudowsky and Glaser (2001) ask "[i]f scores go up on a test that measures a relatively narrow range of knowledge and skills, does that mean that student learning has improved, or has instruction simply adapted to a narrow set of outcomes?" (p.27). They state that the phenomenon of teaching to the test and the narrowness of conventional assessment practices is a source of significant controversy in the use of psychometric inspired tests.

Finally, another area of general concern in modern psychometric assessments is fairness. Moss, Pullin, Gee and Haertel (2005) state that

[c]onceptions of fairness supported by psychometrics or quantitative social science more generally—which derive from the Enlightenment ideal of equal citizenship for all—highlight the importance of treating every person in the same way. (p. 75)

Moss, Pullin, Gee and Haertel point out that the conceptualization of fairness in the most recent Standards for Educational and Psychological Testing in the US involves a focus on equal opportunities for students to learn, equal test outcomes, equal test process and a lack of test bias (American Educational Research Association, American Psychological Association, & National Council on Measurement in Education, 1999, as cited in Moss, Pullin, Gee and Haertel).

Fairness is somewhat simplistically defined under psychometric theory as the uniform or equal treatment of participants. Perhaps as a result, much of the concern surrounding fairness in mainstream psychometric approaches tends to be reduced to simply whether or not there is bias (which would prevent uniform performance) on a given test. Gipps (1995) argues that such a reductionist understanding of fairness leaves much out of the equation. For example, it was under this way of conceiving of fairness that girls' relative underachievement to boys in science subjects was able to be investigated or understood as being due to possible 'cognitive deficits' in girls. The fact that the tests (and the tasks they involved) were modelled on white middle-class boys, however, was not considered as a possible influence on these achievement disparities.

We must consider, if fairness is simply uniformity in testing practices, then is it fair that some people will see their own values and history reflected in these practices of testing and in the tests themselves, while others do not? For example, Gipps (1995) points out that tests are developed in line with the test developer's conception of achievement and differential performance. These tests are treated as universally applicable and their values not made explicit, but the reality is that

pupils do not come to school with identical experiences and they do not have identical experiences at school. We cannot, therefore, expect assessments to have the same meaning for all pupils. (p. 275)

Fairness should not only be a question of biases in tests which relate to practical concerns about uniformity in test outcomes and process. Instead it ought to be questioned whether it is fair to expect uniformity in the experience and outcomes of testing given the diverse student populations made to undergo such testing.

Setting performance standards. The difficulty of setting achievement standards and benchmarks also warrants consideration in relation to the supposed objectivity of modern testing practices. Glass (1978) has called the language surrounding standards in tests 'pseudoquantification', stating that the decision of where to meaningfully place a cut off score for a performance standard is a 'question not prepared for quantitative analysis'. He outlines a number of examples where measurement specialists have set standards at entirely different points. Regardless, he states that standard setting is often written about as though it is a simple, well established, and anything other than arbitrary, technique. For example, Tyler (1973, in Glass) states that mastery of a certain task is as follows:

[t]he child would be presented with a large enough sample of examples to furnish reliable evidence that he could recognize the letters of the alphabet, he could associate the appropriate sounds with each letter, alone and in words, and he could recognize the one hundred most common words. A child has demonstrated mastery of specified knowledge, ability or skill when he performs correctly 85% of the time. (Some small allowance, like 15 percent, is needed for lapses common to all people). (p. 105)

This quote about mastery levels refers to 'criterion referenced' tests, which Glass (1978) says first appeared in work by Glaser (1963, as cited in Glass). Glaser is said to have theorised that people achieve on a continuum, from not proficient at a given educational task to perfectly proficient at it. 'Criterion-referenced measures' are measures which test a person's proficiency along this scale, Glaser argued that these tests could be used to signify a person's mastery at different points throughout an educational course. So the assumption was that people learn along a continuum, that a criterion for what signifies attainment of each level could be discovered or defined and that a test could be taken to measure a student's attainment of that level.

Glaser (1963, as cited in Glass, 1978) suggested that:

[w]e need to behaviourally specify minimum levels of performance that describe the least amount of end-of-course competence the student is expected to attain, or that he needs in order to go on to the next course in a sequence. (p. 520)

Around the same time as Glaser's suggestion, another theorist in this area had begun to suggest that

[i]f we can specify at least the minimum acceptable performance for each objective, we will have a performance standard against which to test our instructional programs; we will have a means for determining whether our programs are successful in achieving our instructional intent. (Mager, 1962, p. 44, as cited in Glass, 1978)

In the years that followed Mager (1962) and Glaser's (1963 work, a number of academics spoke of and defined criterion referenced tests, some using Glaser's

definition, and some using Magers. For example, Popham and Husek (1969) articulated a vision of criterion testing where there was a simple 'cut off' point between incompetent and competent, and this was simply the achievement of the 'criterion' or behaviour the test criterion is thought to measure.

Glass (1978) says that eventually the work of Mager and Glaser was amalgamated and "[t]he belief became widely accepted that criterion-referenced tests carry with them a performance standard or cut-off score indicating mastery" (p.242).

But this view, Glass (1978) argues, was a coincidence, a kind of misappropriation and amalgamation of two ideas which were actually quite different. Glaser, he argues, made no suggestion that it makes sense for there to be a 'cut-off' score or point where a student goes from being incompetent at a task to proficient at it. Instead the process of learning was on a continuum and it made no sense to designate a specific point where incompetence suddenly becomes competence. Mager, on the other hand, did explicitly link the notion of criterion referenced testing to there being a 'performance standard', or point on a test at which you can say 'this student has reached the standard of proficiency with regard to a performance'.

Criterion-referenced tests with cut-off scores have obvious practical value for educational administrators (and many others). Glass (1978) explains the notion of 'minimal competence' (i.e. reaching the 'proficient' level on a scale of mastery) allows educationalists to make decisions, such as when to stop educating a child, move them to the next grade level, move them to a different educational programme, to university, and so on. However, when beginning to unpack the concept of 'minimal competence' it becomes clear this label also has minimal objectivity. Glass argues

[f]or most skills and performances, one can reasonably imagine a continuum stretching from "absence of the skill" to "conspicuous excellence." But it does not follow from the ability to recognize absence of the skill (e.g., this

paraplegic can type zero words per minute at 0% accuracy) that one can recognize the highest level of skill below which the person will not be able to succeed (in life, at the next level of schooling, or in his chosen trade)...Imagine that someone would dare to specify the highest level of reading performance below which no person could succeed in life as a parent. Counter-examples could be supplied in abundance of persons whose reading performance is below the "minimal" level yet who are regarded as successful parents. (p. 250-251)

We might link this to the problem above, of psychometric testing making assumptions that an individual's performance on a test can have meaning across a variety of contexts, and test scores referring to an innate, easily translatable ability. Can a person sitting a few points or procedures below minimal competence on a test always translate easily to that person being incompetent at the task being tested in other contexts? Recall the examples listed above of people who did not perform well in formal mathematics tests but solved mathematical problems proficiently in non-testing scenarios such as grocery shopping.

The main point argued by Glass (1978) is that criterion-referenced tests will always involve a value judgement about where a cut off score for competence should sit. Many other theorists have contended this point too. For example, Emrick (1971) states that

[a]mong the more exciting and promising trends currently emerging with educational innovations and reforms is a shift from traditional classroom instruction with its norm-referenced testing procedures to more individualized instructional systems based on criterion-referenced test procedures. (p. 321)

However, despite their excitement they also concede that criterion-referenced tests are based on arbitrary criteria with no empirical justification for where cut-off scores ought to go and that the appropriate place for cut off scores can vary across skills, tests and populations. Indeed Glass (1978) uses an excellent example to this end, in 1975 a school district in Florida actually shifted a newer definition of 'mentally retarded' back to an older definition, which redefined 'mentally retarded' as any students sitting below 75 on an IQ test. The result was a sudden and dramatic shift of students from remedial classes for the 'mentally retarded' into mainstream classes, and many students (around 10%) being newly classified as 'mentally retarded'.

Glass (1978) notes that a number of top theorists in this area have conceded that criterion testing is based on arbitrary values, but argue that an arbitrary value is better than no value at all. In other words, it is better to set a standard of achievement at an arbitrary point in one's learning, than to have no such standards to assess people by. Glass counters this argument with the suggestion that "the only criterion that is safe and convincing in education is change; increases in cognitive performance are generally regarded as good, decreases as bad" (p.260). Ultimately, Glass suggests that a focus on educational change or progress would be better than making an arbitrary judgment about competence or incompetence at one moment in time.

As pointed out by Emrick (1971), criterion-referenced tests were seen as a hopeful alternative in some situations to norm-referenced tests. Bond (1996) states that criterion-referenced tests should ideally be designed to measure how well a student has achieved a set of learning outcomes, norm-referenced tests are selected for the purpose of comparisons of how students achieve in relation to one another. A significant problem with norm-referenced tests, however, is that teachers often devote considerable time to teaching for high performance on the test itself. In part, this is due to the high stakes often placed upon standardized achievement

tests, as tests are often used to measure teacher and schools' effectiveness. The result has been that some students may perform well on tests, but only have developed low level skills along the way (Bond).

Modern Conditions of Possibility

In the theoretical background section I argued that Foucault's work does not necessarily deny the possibility of a truth per se, but suggests that we would probably only locate it if it were socially convenient. In education there are vast and complex forces invested in and affected by education, players involve teachers, educational administrators, students, parents and caregivers, policymakers, politicians, employers and large corporations. But education also functions as a key part of broader systems, i.e. as an engine for the economy. Which educational knowledges will get taken up, focused on and distributed is thus of enormous value to multiple and often competing parties. Psychometric testing was no doubt of considerable value and convenience to educational administrators who sought to manage educational populations through the values of scientific managerialism, but is it the best way to assess students learning?

The above sections on psychometric testing show that there are considerable problems with the dominance this method has within schools. Not only is this method critiqued from the perspective of other schools of thought; for example, the above cited arguments for a more sociological, situationist, contextualized and cognitive perspective of school achievement. But it is also critiqued on the grounds it lacks the kind of objectivity which saw such methods rise above many competing modes of analysis. Psychometric testing has received critiques of being arbitrary, of encouraging teaching to the test, of measuring learning in only a shallow fashion, of jumping ahead of itself and making claims without empirical backing (in relation to standard setting) and of failing to provide

information about students which is actually of value to educational reformers and teachers. It has highly contestable notions of fairness embedded within it, and yet is assumed universally applicable without the values of the test developers needing to be made explicit.

The key point here is not simply that psychometric testing is flawed, but rather that such testing continues to be used to determine achievement, a concept of significant social impact. That testing determines achievement imperfectly is a pressing issue, given that historically testing has served some groups more than others and because the assumptions, values and failures related to psychometric testing are often not discussed in relation to mainstream underachievement discourse. Indeed, as you will see in the underachievement discourse section below, underachievement is often talked about as if it were an objective, ontological sort of category; something to be fixed, rather than questioned. Effectively this means that various social groups, particularly the working class and minority ethnic groups, are treated as objectively underachieving, rather than as underachieving according to a series of imperfect processes and debatable values and concepts.

A strange kind of reasoning also seems to be occurring, where policy makers and educationalists are attempting to address underachievement (as determined by a test), with more testing. For example, Thrupp (2010) notes that (former) New Zealand Education Minister Anne Tolley linked the need for the implementation of national standards in schools with the underachievement of Māori and Pasifika students. While in the US the No Child Left Behind Act (which saw an increased focus on high stakes testing) was implemented to help 'close the gaps' between ethnic minorities and White students in America (Hammond, 2007). Linn (1987) argues that testing has been suggested as a possible cure for a number of educational problems, such as students not learning enough, teachers not doing their job effectively, schools not being accountable enough, and testing, they contend, remains synonymous with the notion of reform by policy makers.

If the use of testing continually leads to underachievement as an output for some social groups, and it is this underachievement which is sought to be changed, why is the answer to increase the amount of testing? We might understand a continued emphasis on testing, at least in part, in line with its continued compatibility with modern conditions of possibility. The two such conditions of possibility I will focus on are neoliberalism and school effectiveness movements; each of these have structured and enacted significant change within education, and render the above themes (the focus on the individual, testing, efficiency and outcomes) of continued relevance and convenience to the dominant social order in education.

School effectiveness movements. In the 1980's-90's in the UK there was frequent media depiction of public schooling as being in a state of 'crisis', with students reportedly failing and behaving in out of control ways (Slee & Weiner, 1998). The US underwent a similar concern of 'failing public schools' around this time and it is these concerns which Slee and Weiner argue have prompted 'school effectiveness' reforms on the part of policy makers. The aim of the school effectiveness movement is to raise standards of achievement by targeting the 'effectiveness' of schools and their teachers.

Reynolds (2010) says that school effectiveness research and initiatives have potentially expanded and dominated the educational scene more than any other specialty research area. Despite their dominance, school effectiveness movements have been subject to a significant number of critiques from researchers (see: Thrupp, 2001, Hatcher, 1998 or Stoll and Riley, 1999, for a full summary of these critiques). Stoll and Riley have suggested that perhaps the most prominent and repeated critique is that policy makers have cherry picked aspects of school effectiveness research which suits them.

One such aspect they have cherry picked is the idea that 'effective schooling' is enough to even out pre-existing inequalities experienced by students. Creemers and Scheerens (1994) note that educational effectiveness research is

rooted primarily in economically oriented studies (which focus only on inputs into education which can be expressed in monetary terms), along with a few specific sociological studies. The sociological studies in question are those which have suggested that some schools could be effective in producing positive achievement outcomes for students regardless of the background characteristics of their students. Creemers and Scheerens reveal that these studies have since been subject to significant methodological criticism, however, the focus on what characteristics were thought to make those schools effective (irrespective of students backgrounds) were picked up as continued foci within educational effectiveness studies.

A leader of the school effectiveness movement, David Reynolds (1998), has now critiqued the movement, stating that 'rapid progress' was made to raise schools standards initially, as no time was 'wasted' on concerns over values or philosophical discussions. However, the future of the movement, he contends, hinges on "the extent to which we can broaden our remit, can interact with the other disciplines that have different beliefs, and permit self-criticism--which thus far has been singularly lacking" (as cited in Thrupp, 2001). Ultimately, he suggests that the school effectiveness knowledge base has been somewhat corrupted by the Government and policy makers, that they have oversimplified a complex situation, used their work to create 'universal' school improvement programmes and in the process alienated teachers through policy. While Thrupp describes the school effectiveness critics as contending, more bluntly, that governments have hijacked effectiveness research toward ends of neoliberal school reforms.

The school effectiveness movement defines success very narrowly as outcomes on national assessment, treats curriculums and schooling as neutral, exaggerates how much schooling is capable of evening out inequality, heavily focuses on school management and over-relies on individualistic psychological theories of learning (Hatcher, 1988). Indeed while the focus is very much on

improving schools and teachers, there are embedded assumptions that students can exist as universal receptacles for this process; that no matter the students cultural or economic background and their affiliation with the curriculum or testing procedures, a universal and wholly 'effective' means of schooling can be created that will result in effective outcomes (defined narrowly as achievement output) for all.

Angus (1993) describes the school effectiveness research position as follows:

[k]nowledge and curriculum are generally regarded as unproblematic and it is assumed that students must simply learn them...Effective students, regardless of class, race, gender or culture, merely adjust to and accommodate what is presented to them. Since measures of school effectiveness typically amount to measures of basic skills but may also include generally good and polite behaviour (defined as social outcomes), it seems likely that cultural discrimination is built in. (p. 143)

By focusing on variables such as teacher expectations and testing, the school effectiveness movement detracts attention from the power relations inevitably involved in other aspects of learning, such as curriculum and the knowledge it incorporates (Angus). Thrupp (2001) notes that the movement's insistence schooling and curriculum are neutral meant that all the research work completed during the 1970's-80's, which was conducted around ideas of egalitarian reform and curriculum experiences across race, class and gender, was left out of this significant body of research (and the reform which came with it).

Neoliberalism: The New Global Orthodoxy. We might also begin to understand the school effectiveness movement within a broader process of neoliberalism becoming what Grimaldi (2012) describes as the new 'global

orthodoxy'. Cromby and Willis (2014) describe neoliberalism as “a loosely-defined capitalist ideology that informs the policies of many contemporary Western governments, positioning citizens primarily as entrepreneurs and consumers and presenting domination of the public sphere by the ‘free’ market as a natural accomplishment” (p. 3). Neoliberalism is also typically accompanied by ideals such as personal responsibility, entrepreneurship, free market efficiency, consumer choice and self-determination.

Neoliberalism, at its heart, involves a faith in the free market to bring about the sort of wellbeing which was previously the responsibility of the state. Lave, Mirowski and Randalls (2010) state that the faith required in the free market in order to make this possible was thought to require active installation; it was believed the market itself

could not be depended upon to naturally conjure up the conditions for its own continued flourishing. It needed a strong state (divested of its unnecessary social welfare encumbrances) and the backing of international institutions such as the World Bank and IMF to take its proper place in the neoliberal order. (p. 661)

Chile served as the first test case for neoliberal ideas in the 1970's, with neoliberal inspired policies being installed in the US, UK (Lave, Mirowski and Randalls) Australia and New Zealand (Davies and Bansel, 2007) shortly after. The global financial crisis in 2008 generated a considerable amount of doubt and critique towards neoliberal modes of capitalism (for example, see: Kotz, 2009), however, neoliberalism has most certainly persevered (Lave, Mirowski and Randalls).

Neoliberalism might also be understood in terms of governance. Foucault (1978) theorized of ‘governmentality’ not just as government in the traditional sense, but as a style of management which structures fields of action. Davies and Bansel

(2007) explain that neoliberalism involved the reconfiguration of the state as one which “gives power to global corporations and installs apparatuses and knowledges through which people are reconfigured as productive economic entrepreneurs of their own lives” (p. 248).

Education is one of the key places where neoliberalism has enacted restructuring in line with its mode of governance. Lave, Mirowski and Randalls (2010) explain that the organization of knowledge has become a key mechanism by which neoliberalism functions. Practically this can be seen playing out in the way neoliberal reform leads to decreases in the publically funded aspects of universities, an increase in industry relationships with universities, private investment in science and more stringent intellectual property management within higher education. Peters (2013) also notes that neoliberal reform has led to the commercialization of knowledge within universities, such as through global competition for international students. It has also lead to the bloat of administrative services within higher education; an increasing class of administrators “whose job is [to] monitor and measure academic performance and to maximize returns from research” (p. 13).

Peters (2013) and Lave, Mirowski and Randalls (2010) provide more complete overviews of the theoretical underpinnings of these neoliberal reforms to education, such as public choice theory and new public management. For the purposes of this thesis it is worth noting that neoliberalism is expected to function as a ‘marketplace of ideas’ too. Neoliberal governance produces a knowledge economy in that it deals with the exchange of ideas as a kind of commodity - processing and sorting those ideas forward towards innovation;

the novelty of neoliberalism is to alter the ontology of the market, and consequently, to revise the very conception of society. By its very definition, the market processes information in ways that no human mind can encompass or predict. Both of these characteristics of neoliberalism have

profound implications for the organization and practice of science. In the interests of summarizing our immediate concerns with what. (Lave, Mirowski and Randalls, p. 662)

The assumption that the inherent logic of the free market is the best possible coordinator of human knowledge has of course had significant impacts on education and research. Lave, Mirowski and Randalls (2010) note that science has always been “beholden to its patrons” (p. 664) in some sense, however, under neoliberal governance this is particularly the case. The research universities in the US, for example, have come under considerable threat since the neoliberal reforms of the 1980’s. Public funding has been rolled back, in favour of the commercialization and privatization of these research universities (previously believed essential to the US gaining global scientific standing). Federal funding for research universities is now secondary to private investments, but as Lave, Mirowski and Randalls (2010) point out, the research this funding goes toward is very targeted. So no longer are universities quite so simply about the progress and expansion of knowledge, so much as producing knowledge which fits the funding requirements of universities; knowledge as capital.

But these are not the terms the neoliberal reforms are sold in. Peters (2001) argues, that similar to 1960’s post sputnik America modern education has come to “symbolise an optimistic future based on the increasing importance of science and technology as the engine for economic growth” (p. 65). With a changing world order, globalisation and free-trade agreements, the focus is no longer on what Peters described as “exploiting fears of imminent destruction” (p. 65) by rival countries, but one in which education is essential to the development of science and technology which allows countries to compete on the world stage. While ‘entrepreneurship’ was somewhat abandoned during pan-education (in favour of the less risky route of

being an employee), it has found its footing again in what Peters describes as the “post-industrial, information economy of the 1990’s” (p. 65).

Peters (2001) describes an ‘enterprise culture’ as beginning to emerge in the 1990’s. For example, in New Zealand both a former Minister of Education and the treasury began to speak of notions of consumer sovereignty, enterprise and competition in educational curriculums. Enterprise culture and related ideals of neoliberalism (such as the ‘responsibilisation of the self’) began to replace the social democratic narratives which had emerged in the 1960’s. The new neoliberal narrative in education shifted the focus from equality to enterprise, excellence, skills training, performance and technological literacy (Peters), just as the school effectiveness movement usurped social justice rhetorics with the idea school effectiveness is enough to neutralize any pre-existing disadvantage on the part of students (Hatcher, 1998).

We might understand this in line with the neoliberal reforms outlined above. The expected function of the university, for example, has shifted in the US from something expected to produce ‘citizenship’ to being increasingly run like a business. Knowledge has become a form of capital, for which students are simply consumers. Teaching has become somewhat secondary, as the presumed value of the university is now to produce profitable research, and an expansive body of administrators manage this process in line with motives of efficiency and profit (Lave, Mirowski and Randalls, 2010).

Within this model of governance the free market is expected to manage and coordinate knowledge toward innovation, private companies invest and profit from the knowledge and research commissioned through the university, students consume this knowledge, produce it and enter debt with increasingly high numbers. Students are no longer engaging in a process of ‘cultivating their citizenship’, nor are they being taught by higher education teachers with free-reign in terms of what they research and teach. Instead, tenureship appears to be dying out in favour of

part-time or casual teaching roles and teachers must of course cater to the demand for the production of profitable research. Courses are designed in line with industry relationships, profit motives, and a need to pull in and cater to international students (Lave, Mirowski and Randalls, 2010). Thus the university is so no longer structured as a state provision, but as something in which students are consumers, investing in their own value in the market place.

Luke (1995) explains that it was when the educational rights of girls, women, cultural minorities, indigenous people and linguistically diverse students began to be acknowledged (i.e. the acknowledgement of minority ethnic underachievement in the 1960's and beyond) that sociological questions began to have more relevance in universities. It was in the context of questions such as 'who succeeds and who fails in schools' that research outside of the positivist or post-positivist traditions began to gain traction; namely methods which looked at educational issues through an analysis of language, text and discourse. It is such research that I have largely drawn upon for the development of my thesis (particularly my underachievement discourse section below), but the existence of these critical threads has not necessarily fractured or radically changed the face of education in the UK, US, or here in New Zealand. In fact, Thrupp (1998) states that New Zealand and England have perhaps been unparalleled in their level of neoliberal school reforms.

Grimaldi (2012) argues that neoliberalism and its related tenets of individualisation, school improvement and standardisation "impedes any contextualised, multidimensional and critical approach to social exclusion as well as the pursuing of any egalitarian outcomes" (p. 1131). However, despite the continued dominance of neoliberal governance structures in education, rhetoric of concerns over egalitarianism, inclusion and social justice still have such a place that they have been called 'cliché' (Thomas & O'Hanlon (2001, as cited in Arnesen, Mietola, and Lahelma, 2007). Much of these 'cliché' ideals, however, are able to be swept up

within ultimately neoliberal agendas. Grimaldi (2012), in a policy case study, found that

neoliberal understandings ha[d] reframed the initial egalitarian and inclusive purposes. Discourses of growth, competitiveness and human capital offered the wider framework and defined both the concept of inclusion and the purposes of education in terms of economic rationalism. (p. 1150)

The policy in question was an Italian social justice policy named 'Hope', But Grimaldi found that the policy was one which ultimately excluded critical perspectives and contextual considerations of inequity in favour of neoliberal values such as competitiveness, standardisation and school improvement.

The co-existence of neoliberalism and concerns of social justice is an important one. In the below section on policies which seek to raise the achievement levels of working class and disadvantaged children it becomes clear how concerns of inclusion can be framed in neoliberal terms which ultimately situate the responsibility for failure and change on the students themselves. This effectively functions to support the status quo of neoliberal governance by disconnecting the student's failure from its social context and retraining the student's 'aspiration' in line with the values of efficiency and credentialism which have been absorbed within neoliberalism.

Credentialism might be understood as an important arm of neoliberalism; it is the means by which people make themselves commodities in the marketplace, and thus achieve social mobility. Matusov (2011) describes the main imperatives for education which tend to emerge from neoliberalism as the increasing of efficiency, both nationally and in terms of ability to compete economically with other countries, along with an ever upward social mobility supposed to emerge from the

commodification of the self through education. Credentialism, then, is the new gateway to the market, supposedly open to everyone - but only if they can pass the test.

Neoliberalism drives a need for 'high standards' of education (such as with school effectiveness movements), as schooling is still expected to function as an effective sorting mechanism for the economy under neoliberal governance and also because much neoliberal school reform involves the distribution of funding according to school performance. Matusov (2011) explains

high- level educational standards are set up through normalization of the targeted population of the students: If too many of the total targeted students (e.g., all third graders in the United States) pass the standard, the standard might be considered too easy and too low and have to be moved up by making it more challenging, thus failing more students in the future. (p. 1)

The entrenched economic imperative of schooling is thus in keeping with standardized testing and provides an imperative for where that standard (or the gateway to social mobility) might be set. Failure is thus 'endemic' to education (Robertson & Dale, 2002); it is a necessary part of how schooling is expected to function; without it how would the appropriate merit, potential or privilege be sorted and distributed within the economy?

In sum, we might understand the role of psychometric testing as being highly valuable to (and no doubt influencing) dominant educational practices of neoliberal and school effectiveness reform. The concern of these approaches with the individual's output on a test, the measurability and comparability of that output and the notion of students as 'self-responsible'; as consumers or entrepreneurs (but not as contextualized beings with competing modes of knowing, learning and testing), means that the values which arose from the testing movements in the early 1900's

in the US are still of considerable relevance and import in modern educational practices. Below I will begin to outline some of the ways in which underachievement is talked about and theorised, particularly in relation to ‘crises’ of underachieving social groups. Firstly, however, I will look at ‘aspiration discourses’, an imagining of underachievement with clear links to neoliberal governmentality.

Underachievement Discourse

A ‘lack of aspiration’. It was following a realisation of growing social inequality and unequal distribution of wealth in Britain that Government Ministers began to talk about a ‘lack of aspiration’ as a barrier to success in education. For example, former British Prime Minister Gordon Brown said that social mobility for everyone depends on people adopting a strong work ethic and aiming for success (Francis and Hey, 2009). Likewise, following the 2011 riots in the UK, policy makers are said to have attributed underachievement and ‘antisocial behaviour’ to a “culture of low aspiration” (p. 8, Stahl, 2012).

In 2008 the British Department for Children, Schools and Families released a report called ‘Extra Mile: How Schools Succeed in Raising Aspirations in Deprived Communities’. Francis and Hey (2009) state that this report positioned education as a way out of poverty, students’ lack of upwards social mobility as being due to a failure to aspire towards success and encouraged the training of working class children in middle class behaviours and values.

The idea that labour market participation is the “the golden way to social inclusion” has become increasingly entrenched in the UK (Spohrer, 2011, p. 55). As have notions of the ‘responsibility of the individual’, with ‘willingness to work’ even being enshrined as a necessity for receiving welfare support. Underlying these imaginings of underachievement as a lack of aspiration is a firmly held belief that an educated and skilled workforce is necessary for the economy (Spohrer, 2011).

Spohrer (2011) argues that discourses surrounding aspiration in the UK have conflated an economic imperative to get more people into the Labour market with 'equality of opportunity'. They point out that a number of documents and policies which strategize getting disadvantaged youth into employment tend to suggest that the negative life outcomes associated with disadvantage could be remedied if the aspiration of these students was raised. In other words, the assumption is that everyone has the opportunity for social mobility and for a disadvantaged student's life conditions to improve they simply need to aspire towards success in education. Spohrer argues that aspiration is able to be depicted as an easy cure for social disadvantage through the psychologizing of it; in aspiration policy documents contextual issues such as poverty, poor housing and lack of social services are acknowledged only so far as they affect peoples' attitudes (Spohrer).

Spohrer (2011) also highlights a reworking of the concept of meritocracy within a 2009 Cabinet Office report entitled 'Unleashing Aspiration: The Final Report on Fair Access to the Professions'. This report effectively reconceptualised meritocracy as a system where people themselves are responsible for 'grabbing' opportunities at success; rather than the system being responsible for presenting equal opportunities. So unlike former imaginings of meritocracy as a system where success was available to everyone with hard work, the possibilities of success may be more limited, and it is up to the citizen to grasp opportunities for it. Citizens must simply have 'aspiration' and it is not the responsibility of the state to limit structural obstacles associated with disadvantage, but the responsibility of the citizen to 'grab opportunities'.

Aspiration represents a relatively simple point of entry and intervention for policy approaches (compared to reducing social inequality on a broad scale, for example), but it assumes that aspiration is a kind of static and measurable quality within the individual which can be tampered with through policy. Spohrer (2011)

compares this notion of aspiration as a static quality to early behavioural psychology approaches which are “reminiscent of the simplistic psychological concepts embraced in recent management approaches” (p. 59).

What the term ‘aspiration’ actually entails is often not made explicit, however. Stahl (2012) notes that the term is often not defined and that this ambiguity “masks assumptions and fails to reveal the complexities of the competing life worlds experienced by students and by which they are influenced” (p. 9). For example, Archer, Hollingworth and Halsall (2007) conducted a study on the different experiences of aspirations across class, particularly those of working class women. They found that urban working class women often had specific experiences with performing hyper-heterosexual femininity which shaped the direction of their educational aspirations. Quite apart from policy imaginings of aspiration as a static and universal entity, Archer, Hollingworth and Halsall showed that aspiration might be conceived of and experienced differently across lines of gender, culture and social class. Thus, what increases aspiration for one person or group, will not necessarily do the same for others.

These practices of ‘psychologizing’, or rather understanding this issue as due to the (often pathological) inner workings of an individual, syncs up with dominant neoliberal ideologies discussed earlier. Stahl (2012) describes policies which target aspiration as being “[i]nfused with a neoliberal prerogative” (p. 9), whereby individuals can access social mobility and success through their commitment to processes of credentialism. But as Stahl notes, this idea is out of sync with a vast amount of research which shows social mobility is not experienced that simplistically by everyone. The notion of a ‘job for life’ is no longer secured in post-industrial society, instead workers may have to upskill, go through a succession of jobs, attend higher education, take on service jobs, compete within insecure job markets (depending of course on where one sits across spectrums of race, gender, class, experience and credentials).

The experience of working class pupils in the UK has always been substantially different from middle or upper class experiences. To this end Reay (2001) provides an overview of the history of attempts to educate the UK's working class, with examples of explicit mandates to do so in line with middle/upper class values. She also explores a history of the pathologization and negative representation of the working classes in education and argues that it is the working class who have been most negatively impacted by the advent of credentialism. Working class pupils, she contends, find themselves in a contradictory position of having to negotiate a seeming loss of identity to the dominant culture (through education) and a desire for material acquisition now supposedly available to the working class through credentialism. Drawing on Bourdieu's concept of the 'outcast on the inside', she describes education for the working class as involving "alienation, cultural losses and subordination" (p. 336).

Reay (2001) concludes that rather than practices of pathologizing the working class, or failing schools and universities, the focus should turn to "those policymakers who fail to care, cynically dissemble and refuse to recognize the connections between educational and wider social contexts" (p. 343). Stahl (2012) has come to similar conclusions, following their work with white working class boys, which showed the aspiration of these boys required a process of identity negotiation in line with neoliberal imaginings of education and success, and thus once again that aspiration is not a static, universal sort of quality. Stahl asserted, as a result, that educational underachievement ought to be studied in a manner which acknowledges the subjective, contextually shaped nature of pupils.

There is a crucial difference between the kind of psychologized aspiration, which Stahl (2012) notes is often linked to other psychological concepts such as self-efficacy and self-esteem, and the kind of aspiration dealt with in studies such as Archer, Hollingworth and Halsall (2007), Stahl and Reay (2001). The former imagining casts aspiration as a universal, essentialized object which might exist in

everyone in a way which can be measured and tampered with. Certainly, we can understand this conceptualization in line with dominating practices of individual psychology which were discussed earlier. However, the push toward research work which acknowledges the subjective and inevitably complex and contextual experiences of 'aspiration' makes such an object seem less definable, measurable and possible to essentialize.

Potential, as discussed in the opening chapters of this analysis, was also treated as a psychological object which existed universally across all students. Recall that underachievement was defined as the discrepancy between potential and achievement outcome. If aspiration is the missing link here, the thing which once raised amends this fissure between potential and outcome, then does that mean all students have the same potential to achieve? Consider this quote relating to working class children's education from as early as 1912 in the UK:

[w]as it possible that the children of the working class, however fortunate, however plucky, could hold their own later with those who in the formative years drank deep and long of every fountain of life? No. It's impossible. Below every strike, concealed behind legislation of every order, there is this fact - the higher nutrition of the favoured few as compared with the balked childhood of the majority. Nothing evens up this gross injustice. (McMillan, 1912, as cited in Reay)

This quote from early childhood learning theorist Margaret McMillan highlights a lengthy (at least peripheral awareness) that working class children face more structural obstacles in school achievement than their middle and upper class peers. Reay notes that the disadvantages (within the current system) which working class children endure have often been framed in deficit terms within the individual. But as

Reay outlines, the UK schooling system has historically both subordinated the working class and entrenched their position. On this system Reay states

the system itself is one which valorises middle-rather than working-class cultural capital. Regardless of what individual working-class males and females are able to negotiate and achieve for themselves within the educational field, the collective patterns of working-class trajectories within education remain sharply different from those of the middle classes, despite over 100 years of universal state education. (p. 334)

Much as with early schooling for minority students (which will be outlined later), this disadvantage was effectively engineered by the state, who gave working class children a subpar education. Reay notes that following the introduction of state education for all in the UK (in the late nineteenth century), education for the working class was installed in a way which manufactured their subordination to middle/upper class values. The spirit of the times is well exemplified in this quote by British statesman John Lowe: "If the lower classes must now be educated . . . they must be educated that they may appreciate and defer to a higher civilisation when they meet it" (Lowe, 1867, as cited in Reay).

Similar events were occurring in the US, where following the advent of education to all, a system of stratification was proposed for high schools. The arguments for such stratification were by and large that students from disadvantaged backgrounds had different needs and ought to be offered a lower education, while a more academic curriculum was best suited to those who might attend college or eventually get white collar jobs. While members of progressive educational movements were advocating for schools with diverse curriculums and the idea that education ought to function as a great equalizer and enabler of human development, a demand for the division of labour and a number of employers

wanting to disrupt the power held by skilled workers was occurring simultaneously (Bowles and Gintis, 1976).

Bowles and Gintis' (1976) work on the history of education in the US reveals that the end result was somewhat of an amalgamation of competing pressures from progressive educators and people concerned with the creation of future workers. A system of stratification (curriculum tracking) was able to be installed despite resistance, largely due to what came to be known as the 'vocational education' movement (which would see the lower class distributed into vocational education). This movement (which was also supported by high ranking politicians and educators) helped employers divide up the power which skilled labourers had been accruing in the late 1800's.

As Bowles and Gintis' state

[t]he employers' strategy to break the power of the skilled workers was spearheaded by a largely successful attempt to destroy their unions. The ideological rationale for limiting the power of the skills workers was propagated by the school of scientific management, which held that the behaviour of workers, down to the very movements involved in mechanical operation, must be controlled and dictated by technicians and managers according to scientific principle. (p. 193)

The use of vocational schools meant that 'foremen' could be separated from 'production workers' and stratification could take place which would disallow the skilled worker from having the power to manage and hire their own apprentices. This new structure of schooling then; secured the production of future employees, rather than employers.

The schooling of the working class then is not just something which involves their subordination to middle class values and a history of 'non-academic'

curriculums, it is also fundamentally part of a system which is controlled by other vast and competing forces (i.e. those wishing to produce effective employees, boost the economy, and close educational achievement gaps). Humanistic discourses which frame the education of the disadvantaged as a path toward their social mobility ignore the fundamental difference in history and current experience of education by these students; schooling was not created for or by them, but rather has contributed to their continued subordination and oppression; it has controlled, arranged and distributed them according to dominant perceptions of their potential or value.

As Reay notes, the social mobility of the working classes has not changed dramatically during its 100 year presence in the UK. It is not until recently (the 1960's onwards) that concerns over 'achievement gaps' have begun to dominate. However, no one was concerned about the achievement gap between working and middle-upper classes when education was more explicitly a tool of subordination. I will explore 'achievement gaps' and the events of the 1960's onwards in detail further in, but for now it is important to note simply that the concerns for social mobility and the achievement of working classes have not necessarily lead to solutions that are anything other than a continued violence against them.

The problem with treating complex phenomena such as aspiration, or even achievement itself, as a singular entity, is that the processes which contribute to its definition are going to structure it around pre-existing norms. So here when policy makers say 'we need to raise the aspirations of students', aspiration is treated as an object which moves in a direction towards increased credentialism. Aspiration thus relates to a kind of efficiency and current imaginings of success. There is no complex understanding of how aspiration is experienced by the working class, or an aspect of choice here.

It is easy to forget that there was once a time where it was not considered pathological or in need of remedy if a student did not want to excel in mainstream

education; a time where it made sense to have aspirations which lay beyond credentials. Of course working class populations should have the choice of a relevant educational process which does not subordinate them, but in the absence of that their resistance to the schooling system is not unreasonable. The expectation they overcome structural barriers and overthrow cultural differences for a system which promises (but has yet to deliver in 100 years) their success; the expectation they are loyal to a system which has subordinated and controlled them, a system which they had no say in the design of and are now effectively blamed for their failure within (requiring policymakers to step in and tamper with their 'aspirations'), is, however, unreasonable.

While this might all seem unreasonable when placed in terms which considers the history, lived experience and subjectivity of these students, the construction of underachievement of working class students as simply 'lacking aspiration' makes perfect sense in its surrounding conditions. Mainstream psychological and educational research which informs the sort of aspiration based policies explored above are not typically based on complex understandings of the students involved. Instead the reductive and essentialized psychological objects such as 'aspiration' are able to be utilised to the benefit of overarching ideas of boosting the economy through the production of a skilled workforce, the individual as responsible for their success, neoliberalism, meritocracy and credentialism.

In other words psychological objects such as aspiration function as technologies of power; psychological knowledge has enabled the construction of a kind of universal citizen who possesses the potential for self-determined success, and thereby gives credence to neoliberal governance which pitches the individual as responsible for their own social mobility. Luke (1995) notes that

much early and mid-century education research attempted to define the human subject in ways that individuated differences and thereby focused the

attention of successive generations of researchers, curriculum developers, and teachers on a universal, degendered, cross-cultural, cross-linguistic self.

This behaviourally skilled citizen/worker was indeed the ideal subject. (p. 21)

Psychological research was a great contributor to this process, focusing on discerning differences between individuals, ignoring cultural differences and hybridity between cultures; it thus helped to establish a 'monocultural' individual, an individual that can be defined and classified in ways which suit the industrialization of education (Luke).

The political effects of the neoliberalization of that universal individual, of framing them in terms of self-responsibility, means that "poverty is subtly recontextualised as 'underachievement' (failure to thrive), and a less-than-subtle discursive sleight of hand produces lack of hard work and ambition as exclusive explanations for this failure" (Francis and Hey, 2009). Indeed by casting disadvantage as something which simply affects an individual's psychology (and thus can be 'fixed' through individually targeted rehabilitative strategies which assimilate them to a system of efficiency), the state's responsibility for addressing poverty and disadvantage is effectively dislodged.

When you introduce a human subjective element into research (and the policy it informs) the reasonable question is not quite so simply 'how do we raise the aspirations of the students?', but rather 'should all students have a universal kind of aspiration?', 'do all students have the same chance of success in the current system?' and 'is the schooling system deserving of all students loyalties?'. In other words, our understanding of working class or disadvantaged underachievement in aspiration discourses is contingent upon the way we conceive of individuals and their connectedness to history and social context. At present, we can see the hallmarks of individual psychology present in the way individuals are understood in relation to their context, and these hallmarks, flawed as they may be, enable very

specific policy responses and conceptualizations of underachievement as a 'lack of aspiration'.

It would be amiss not to note that minority ethnic populations in the UK have also been targeted by aspiration policy. For example, Archer (2008) refers to a strategy paper called 'Aiming High' from the Department of Education and Skills in 2005, which saw the aspirations of black and minority groups as being in need of expansion in order for underachievement to be remedied. Archer notes that these discourses framed underachievement in individualistic terms, as a matter of personal choice, and structural factors were given very little consideration. They note that such discourses likely draw strength from pre-existing discourses which depict Black/minority ethnic students as being of lower intelligence, poor culture and belonging to 'unacademic' families.

The underachievement discourses relating to minority cultures will be explored in detail further in. For now, however, it is helpful to begin to see the different ways underachievement is talked about and conceived of. Throughout an exploration of boys, gifted and minority underachievement discourses below it is clear that underachievement is not constructed as a different object entirely. Notable is the persistent imagining of underachievement as a problem or a pathology affecting the individual, the focus on output (i.e. test results) rather than process, the presumed validity of treating groups demarcated by class, gender or ethnicity as homogenous wholes, the presumption of the validity of testing and standard setting and an implicit assumption that schooling is a neutral vehicle toward success. Underachievement is, however, treated as something with different 'cures', causes and urgencies depending on when it is talked about and who it is talked about in relation to.

The gifted underachievement crisis. We might think of 'gifted underachievement' as the first time 'underachievement' was thrown into the spotlight, both as a concept and as a crisis. The broader conditions which enabled

'underachievement' (or school failure) to become of concern within education have been outlined above. The conditions which helped underachievement (as we know it under the psychological definition) to come to the fore, can be found in longitudinal studies by Terman and Oden during the 1930's-40's on students with a Binet IQ score over 130, which found that expected ability levels were not always isomorphic with achievement levels (i.e. Terman and Oden, 1947). Borland (2003) points out that during this time

[I]ndividual differences in test scores, as well as more apparent differences in academic achievement as compulsory education laws became more common and better enforced, can be seen as the direct progenitor of such constructs as those that later became giftedness and mental retardation. (p.107)

Terman, who developed the Stanford-Binet Intelligence Scale, became what Borland describes as 'the father of gifted education' in the US. The presence of psychometrics, particularly IQ tests and an expanding body of students for which educational administrators were concerned with comparing the achievement outcomes for, pathed the way for the birth of 'gifted underachievement'.

We might also consider that the presence of IQ tests enabled norms of intelligence to be developed. It became possible to be demarcated as 'gifted', 'normal' or 'retarded', due to the ability to compare the presumed objective intelligence of segments of the population. The presence of 'giftedness' (as determined by an IQ test), followed by longitudinal studies which showed giftedness did not always lead to high achievement outcomes, set in place the conditions for the definition of underachievement which persists till this day; a discrepancy between expected achievement levels based on IQ (potential), and actual achievement outcomes.

Recall that student failure had existed prior to this point; not all students passed the necessary educational tests, but this was not considered a problem so much as a sign that standards on tests were set high enough. Failure on a test became a problem only when that failure was reconceptualised as a 'failure of potential' (for gifted students anyway). We must consider the dominance of the social efficiency model during the early 20th century here too; no doubt the expectation education function as an engine for the economy, processing the suitable students efficiently toward the employment market or higher education, was of great influence to a 'failure of potential' becoming a problem. If students who were identified as possessing the highest possible intelligence were not succeeding at standardized educational tests, then something was clearly going wrong, and the engine was not functioning as it should.

Borland (2003) argues that if social efficiency models had not existed during this time period, that if instead systems of schooling which accepted human differences had dominated, and if no attempts to create hierarchical models of human intelligence had been made, then giftedness as the concept we know of today may never have come to exist. However, the above conditions of possibility did path the way for such hierarchical visions of intelligence to come to fruition, and as a result, I would argue, so did the conditions for underachievement. Gifted students represented a shift from failure as a largely accepted phenomenon, to one which represented a failure of potential, put quite simply; they made failure a problem; they represented 'potential' for the marketplace or economy which was not being capitalized on.

Making failure a problem was not quite enough to throw gifted underachievers or the concept of underachievement more generally, into infamy, however. The times at which underachievement has become popular in both public and academic domains appears to be linked to specific perceived 'crises' or 'epidemics' of underachievement. It wasn't until the 1950's in post-sputnik America

that an intense focus on 'gifted underachievement' occurred, seemingly in response to the threat of Soviet technology. During this time period there was a resounding call throughout public and academic discourse to address underachievement and capitalize on students' potential in order for America to excel. Federal funding was invested in education in the hope that gifted students might help the United States regain its footing as technologically and scientifically superior and gifted underachievers became a focus of significant amounts of research (Tannenbaum, 1983, as cited in Schultz, 2002).

One might think that the presence of 'gifted underachievers' would throw either the IQ model of intelligence or the standardized testing or schooling system into question, but this is not what occurred. Cross (2003) explains that

by the time of Terman's (e.g. 1929-1959) seminal studies of gifted children, the mechanistic paradigm was the basis for research in psychology and education. Its underlying ontological and epistemological assumptions -- along with its primary tool, the IQ test-- shaped our concepts of giftedness and the needs of gifted students. It also wedded gifted education to the emerging dominant mode of inquiry in behaviourist psychology that pursued cause-and-effect- relationships; the empirical-analytical mode. (p. 73)

The empirical-analytical mode of inquiry, drawn from the physical sciences, perceives of the world as knowable, stable and thus possible to produce cause-and-effect laws about from the presumed objective observer standpoint of the researcher.

Cross (2003) notes that such research approaches make "little distinction between objects and people as the subject of research" (p. 75). It is assumed that people can be known from an objective outsider standpoint, that they can be measured and that the laws produced about the person/object can be observed by

multiple researchers. Recall too that movements such as individual psychology and attempts by psychology to explain social problems in terms of individualized pathology also dominated the early 20th century. The gifted underachiever, who was researched under these dominating values, came to be pathologised and understood in terms of individual deficit; they represented a social problem and the dominant values and assumptions of that time were able to enshrine them as an individualized object for psychological research.

The bulk of research acquired on the topic of gifted underachievers came from the 'crisis' time period during the 1960's and remains focused on attempts to find what Schultz (2002) describes as 'strategies to mould' these gifted underachievers to dominant education and learning practices and treats underachievement as a pathology in need of rehabilitation. For example, Reis and McCoach (2000) and Dowdall and Colangelo (1982) summarize a number of the characteristics thought to relate to gifted underachievers throughout the research literature on this topic. They include, as a few examples, being of low self-esteem, having a low self-concept, being socially immature, anti-social, having 'undesirable' home environments, being inattentive, anxious, dependent, pessimistic, rebellious, having a negative attitude toward school, lacking goal directed behaviour, being self-critical, and performing better on some tasks better than others.

The 1960's saw a significant amount of research investment in the 'gifted underachiever' from the dominant behavioural psychological point of view (which was later to be somewhat eclipsed by the cognitive psychology movement). Gifted underachievement was researched in relation to behavioural related variables; motivation, home backgrounds and personality traits were examined as possible reasons for these students underachievement. While behavioural modification therapy and counselling were recommended as 'cures' (Schultz, 2002).

Schultz (2002) argues that the majority of what is 'known' about gifted underachievement as an object comes from behaviourism inspired research from

the 1950's-60's. Before later movements involving multiculturalism, sociology and cognitive psychology could significantly influence this field of study, it fell out of favour with the American public. The United States grew seemingly disillusioned with the state investment in education when those 'gifted students' the country had invested in failed to lead America quickly to victory in the Vietnam war. Coupled with a public outrage in the 1960's regarding disabled children not being provided adequate educational opportunities, many appeared to lose interest in the development of gifted children.

Underachievement as pathology. The pathologization of underachievers is a consistent theme across underachievement research; research nearly always treats underachievement as a problem which needs to be solved. Infringements against educational norms of efficiency, discipline and attainment are able to be perceived in deficit terms such as maladjustment, psychological disorder, negative personality characteristics and so forth, because modern psychological discourses do not account for aspects of choice and context. Stojnov, Dzinovic and Pavlovic (2008) explain that

[b]ecause [the] rationalism and pragmatism [inherent] in modern "psy" sciences do[es] not account for the individual interests of school underachievers, their behaviour is not conceived as a conscious, rational and preferred choice, but as a product of irrational, instinctive, and emotional aspects of their personalities. (p. 47)

We saw this occurring in aspiration discourses too; there was no consideration of the sense in which aspirations could be multiple, and a lack of aspiration towards credentialism may be perfectly rational for some students.

Stojnov, Dzinovic and Pavlovic (2008) argue that instead of seeing underachievement as simply a 'problem' for the progression of educational science,

research should acknowledge the personhood of the students who are underachieving and view 'underachievers' as people who are capable of both acting rationally and communicating about their actions. Instead educational science typically excludes the voice of pupils' themselves; studies are conducted on them, rather than with them. Schultz (2002) has contended that it makes no sense that gifted underachievers are not included in studies on gifted underachievement, given they would be such a knowledgeable source on the issue.

Schultz (2002) suggests that the inclusion of more qualitative research on gifted underachievement would add a richness of information and a multitude of perspectives (often from the underachievers themselves) to the body of research on this topic. They argue that

[t]ogether, broad research perspectives (quantitative and qualitative) provide insights and an articulation of truthfulness and reality beyond the ability of any one approach...The issue of how research is conducted should reflect what approach will best address the questions of the study and not be based solely on transition or fashion. We need to widen our conceptual blinders to include other views of the world and voices of people historically not included in the picture. (p. 199)

As you will see, other areas of underachievement research do have a greater presence of such qualitative research (I draw on much of it for my minority underachievement section), although it remains questionable whether this qualitative research could be considered mainstream or dominant, or have any substantial effects in the real. Gifted underachievement, however, perhaps because it went out of fashion as a research topic before it could be influenced by more diverse research methods, remains more deeply influenced by behavioural perspectives and natural science based approaches. As it stands then, there is little

in the way of research into gifted underachievers which acknowledges their perspective and experience of this phenomenon.

Here we can see the themes from the conditions of possibility section above (i.e. a focus on individual psychology, the need of educational administrators to find ways to sort and categorise students) playing out in the way this kind of underachievement is talked about and researched. But equally we can see that the way in which the progression (or halting) of research into this topic was tied up with socio-historical events. A change in values surrounding education and its intended purpose saw gifted underachiever research fall out of priority, leaving this body of knowledge somewhat fractured and underdeveloped. Gifted underachievement research is thus a prime example of the sense in which knowledge both progresses in line with socio-historical conditions and demands, but also can be halted by it; in other words, the direction research takes is not determined wholly within some pure theoretical space, but by demands, values and resources within the real.

Gifted underachievement is an example of Foucault's arguments outlined in the theoretical background section; science does not follow a perfect progression, unaltered by the conditions it is produced within, and thus we cannot treat its objects as infallible. We saw a similar problem with the underachievement as a lack of aspiration discourse above; this conceptualization of underachievement was not based on the best possible research on underachievement, but rather the most convenient. Policy makers were able to use individualized psychological constructs to justify the use of individually targeted policy on disadvantaged students. More qualitative research which involves the subjective perspective of underachievers demonstrated the complexity of the 'aspiration' which policy makers attempted to tamper with. However, this knowledge was likely not of the same utility within prevailing social conditions in the UK, as it runs contrary to the idea of a perfectly universalized and self-determined citizen who can overcome contextual barriers through a simple increase of their 'aspiration'. Accordingly, such knowledge is less

easily swept up within surrounding neoliberal governance structures/school effectiveness regimes, and individualized notions of aspiration are able to prevail instead.

Underachievement as a rational choice. Stojnov, Dzinovic and Pavlovic's (2008) argument that modern psychological discourses do not allow for the possibility of a rational choice to 'underachieve' is an important one, given that not everyone's experience of education is equal or positive. Carter (2008) argues that "mainstream achievement ideology requires individuals to take ownership of their successes and failures, and it fails to account for structural conditions that might constrain or even impede" (p. 467). This view, she argues, tends to be held by White middle class America, and serves to reify their position as being due to hard work and success, rather than structural privileges. How African-American students view success on the other hand, has been subject to far less research attention.

Carter (2008) states that research which has been conducted indicates that some African-Americans do not share White middle class beliefs about success, viewing social mobility as being impeded by ethnicity and class, regardless of how hard one works. Carter (2005, as cited in Carter, 2008) found that some high achieving African-American students were able to get ahead due to a bi-cultural perspective they adopt; one which enables them to work between cultures, to "critique the mainstream culture of schooling while simultaneously performing well academically" (p. 469). Fordham and Ogbu (1986) call this phenomenon 'acting white'.

Fordham and Ogbu's (1986) position is similar to Carter's (2008); African American students often have an entirely different perception of meritocracy within schooling, given they have historically been subject to a substandard quality of schooling and face a 'job ceiling', whereby educational credentials do not necessarily guarantee them access to the same employment opportunities as their White counterparts. This job ceiling creates a feeling of mistrust and frustration

towards schooling, and thus a reluctance to act in line with school norms. It is under these conditions, Fordham and Ogbu argue, that black students' performance is "not deviant or pathological but should be considered as a mode of adaptation necessitated by the ecological structure or effective environment of the black community" (p.179).

In opposition to the underachievement of some minority students in mainstream education, Reay and Mirza (1997) detail the success of supplementary Saturday schools for African Caribbean students in the UK. These schools are said to provide students with a "context in which whiteness is displaced as central and blackness can be seen as normative" (p. 487), a curriculum relevant to the students and their culture, and where students are encouraged, expected and entitled to speak out. They state that often black children are not listened to in school, or are thought of as a nuisance. In supplementary schooling, however, they are taught to be both proud and strong. This schooling also demands high standards of its students, thereby subverting "the cry of low standards automatically associated with 'other' knowledge" (p. 497).

The work by Carter (2008) and Fordham and Ogbu (1986) demonstrates the possibility of students choosing to achieve or not to achieve consciously, rather than education being a pure measure of potential or merit. Their work shows that classifying underachievers as pathological can function to individualize this issue and thereby avoid consideration of broader contextual circumstances which make education more difficult, irrelevant, subordinating or unsuitable for some. Contextual considerations such as these significantly challenge assumptions surrounding meritocracy and the fairness of uniform systems of testing and education. While the work by Reay and Mirza (1997) shows the value of schooling which is negotiated with people within a culture rather than simply imposed upon them.

Underachievement as under-attainment.

[U]nderachievement is a multidimensional construct that cannot be assessed with unidimensional instruments. (Ford, 1996, p.54, as cited in Gillies, 2008)

Gillies (2008) has argued that underachievement should be reconceptualised as 'differential attainment', given its popular usage refers to a failure to obtain achievement scores on a specific test. The concept of achievement, on the other hand, can extend well beyond a focus on test scores. For example, students can achieve in creative pursuits, political activism or sport. Gillies questions whether underachievement is the most fitting title for students who excel in some areas, but perhaps not in those which relate to standardized test taking.

Francis and Skeleton (2005) have suggested similarly, on discourses surrounding 'gender gaps' in achievement, that

'[a]chievement' is extraordinarily narrowly conceived within the debates around 'gender gap', which position achievement as exclusively reflected by credentials from performance in examinations. Broader views of educational aims and 'achievements', such as increased understanding, social competence, citizenship, extension and diversification of abilities and so on, are marginalised and effectively invalidated by the hegemony of the credentialist terminology and focus. (p. 2)

They contend further that because of such narrow conceptualizations of achievement or underachievement, educational policy which seeks to address 'achievement gaps' does not typically view this problem holistically, but rather as a matter of raising the achievement output of underachieving groups.

In resistance to narrow definitions of achievement Gillies (2008) offers the example of students who are expected to be main carers in their household, perhaps for siblings or a parent. Indeed there are a number of similar conditions

which could require students' focus beyond the school arena, perhaps leaving them tired, or any of the personality characteristics listed by Whitman (1980) in relation to gifted underachievement (i.e. distractible or inattentive). What Gillies arguments draw attention to is the expectations of uniformity of life conditions and interests which are inherent in notions of modern educational achievement.

Underachievement, and all the negative personality characteristics thought to relate to it (such as low self-esteem, rebellious behaviour, inattentiveness), could be reasonable responses to life conditions, preferences and interests which sit outside of, or make difficult, the behaviours and preferences expected within modern education. We might link this to the above arguments by Stojnov, Dzinovic and Pavlovic (2008) that modern psychological discourses do not account for the preferences of underachievers; framing underachievement as a form of maladjustment, pathology and irrationality. Choice is treated in a strange way here; it is implicitly assumed people have the choice to achieve (i.e. that they can override all conditions which make that difficult or unappealing), but it is not assumed they have the choice not to achieve (or at least not without being pathologized).

Students are pressed to achieve in these conditions; to not achieve is to face a label and position with significantly limiting social consequences, but the modern definition of achievement (credentials obtained through standardized testing) is incredibly limiting too. Further, it is a definition of convenience; one which fits into place with surrounding structures of credentialism, ideas that schooling should produce employee's or entrepreneurs and thereby function as an engine for the economy; it is not a definition of achievement decided on by diverse cultures or stakeholders. Students are thus held hostage to the schooling system in a sense, pathologized if they do not achieve, but bound to a narrow path (which will not be relevant, interesting or possible for all students) if they do.

Underachievement as a Failure of Potential. In the opening sections of this analysis I explored the importance of the concept of 'potential' to definitions of

underachievement. Gillies (2008) notes that the idea of people possessing a kind of universalized potential has become so dominant it has even been enshrined in the United Nations Convention on the Rights of the Child (1989, as cited in Gillies), which holds children should be able to develop to their 'fullest potential'. Gillies even describes potential as a 'key tenet of educational provision' (p. 6). In the aspiration discourse section above I asked: if aspiration is the missing link, the thing which once raised amends this fissure between potential and outcome, then does that mean all students have the same potential to achieve?

This seems an important question; one which lies at the heart of underachievement discourses in general, and particularly discourses about aspiration and closing of 'gaps' between differentially achieving groups. Seemingly, if policy makers can create policies which would close the gaps between two groups (i.e. boys and girls or Māori and Pākehā) then there is an implicit assumption that all groups possess the same potential to achieve. Equally if all it takes is the simple raising of aspiration in working class children, then there is an underlying assumption that working class children possess the same potential to excel in schooling as their middle-upper class counterparts. But where does this assumption come from?

If potential is defined as IQ, then such an assumption might make sense. Recall, in the opening sections of the analysis I explored the psychological definition of underachievement which defines potential as scores on an IQ test, and from there one could assume IQ has a 'normal distribution' across populations. But this definition ran into significant trouble; namely, because achievement output (assumed to be determined by potential or IQ) was not 'normally distributed' across populations at all and as explored, there was no easy logical way to sync up the discrepancy in achievement outputs in different social groups with a conceptualization of 'potential as IQ'. Further, there was an issue of significant confounding within this definition, whereby much of what determines one's scores

on an IQ test, could also determine one's scores on measures of achievement (such as standardised testing). Problematic again, was the significant amount of research within mainstream psychology which shows achievement output is likely affected by a number of factors beyond IQ, thus even on the terms of mainstream psychology, IQ is an imperfect single definition for potential.

Once we take away the idea that potential refers simplistically to an innate intelligence, however, the idea it might be evenly distributed across populations makes far less sense (given experiences of education are so different across social groups). But how else could potential be conceived? Gillies (2008) argues that the way potential is spoken of generally, such as in the UN Convention is incredibly ambiguous. They suggest that

[s]uch a commitment to 'potential' invites us into an ideological view of human development, a concept for which there are no objective criteria and so a term over which there will be little prospect of consensus or agreement.
(p. 6)

They note further that even key researchers who focus on academic potential acknowledge the problematic nature of this concept, namely because it is so difficult to measure the related concept of 'capacity'. Further, the concept can be easily abused; the potential of some children (for example, special needs children) can be assumed to be much lower than it is, thereby diffusing the responsibility for their access to social services.

The centrality of potential as a concept makes us ask: potential for what? Is it potential to achieve the highest possible credentials? Employment? Financial security? Procreation? Adherence to societal norms? It is because the list of possible answers to this is large, unwritten, difficult to measure and thus manipulable that we might understand potential as Gillies describes it; 'necessarily

subjective relativism' (p. 6). Potential is essentially, a highly adjustable and convenient term. If potential is universal, then education can be too; if all students have the potential to obtain credentials through standardized testing and mainstream schooling, then there is no state obligation to deal with the diversity of possible interests, needs and values of the schooling population. If potential is a universal, single kind of quality, then it makes sense to have a universal, single kind of schooling and testing.

If it makes sense to have a universal schooling, then everyone can be bound to the same system of credentials, which helps with the selection and sorting of employees for the workforce. Large and diverse populations are able to managed, surveilled, compared and processed towards norms of efficiency and employability. Overlapping ideas of fairness as 'treating everyone the same' can prevail, without the dominant cultural values inherent in testing and schooling needing to be challenged. If everyone can achieve, and neoliberal values of self-responsibility and being entrepreneurial dominate, then it's easy to think that everyone simply should.

Imagine, though, if 'potential' was defined by the likelihood of academic success and this was determined not just by measuring one's IQ, but all of the other factors believed to be related to achievement output (as outlined in the extensive list in the opening sections of this analysis). Or even if one calculated likelihood according to a social group one belongs to, i.e. what is the percentage of working class children who underachieve compared to their middle-upper class peers? Does someone who belongs to this group have the same likelihood of achieving? When potential is redefined as likelihood, the schooling system suddenly doesn't seem so fair. Gillies (2008) argues that

the whole notion of 'achieving potential' could be dismissed as idealist fantasy, a conception of human possibility which fails to factor in key

environmental, social, cultural, personal, psychological, conscious, unconscious, planned, accidental factors. (p. 7)

By framing potential as universal and localized in the individual, much which actually shapes a student's success within mainstream schooling is left out of the equation.

Potential is thus imagined in ways which are contextually relevant and which support dominant ideas and practices; namely as something which is universally distributed. Potential is crucial to how underachievement is imagined as an object; if someone does not attain a pass score on a test but it was never possible for them to do so, then this would be an inevitability (or failure), rather than underachievement as it is commonly defined. Recall, however, that failure is an expected aspect of standardized testing; standards which fail and pass students are thought to allow schooling to function as an effective sorting mechanism for the economy.

This sits strangely with the dominance of 'underachievement discourses' which portray a concern for underachievement, convey a sense in which it is a 'crisis' and thus depict underachievement as a somewhat unacceptable social phenomenon. But if no-one is underachieving, then how is such a standards based system of testing expected to function? The answer is that it could not; if everyone was passing standardized tests, then they would not serve their expected sorting and organising function. Understanding the social conditions which structured the difference between failure and underachievement, and which conditions exactly split the two so that 'underachievement' came to refer to whole demographic groups could be a worthy direction for future genealogies on this topic.

From what we have explored so far; we might hazard a guess that once 'underachievement' came to refer to 'gifted students' as an entire group, who were failing to achieve their 'potential'; the possibility of using this term to refer to other such social groups occurred. Thus, in a sense, the psychological definition of

underachievement may have helped to give rise to the sociological one. These conditions then split 'failure' from 'underachievement' in important ways; underachievement came to be a term which refers to whole social groups who 'fail' or 'underattain', presumably because it implies something about their potential. 'Failure', on the other hand, might be thought of as a more accepted, inevitability of the testing system.

If whole demographic groups are disproportionately underachieving, then 'something' is certainly failing. What that 'something' is, what level of failure will be accepted, how that failure will be defined, categorised and remedied is, as we have seen, cast as a problem for the progress of educational and psychological science. But the dominant methodologies will always push our understanding of that 'something' in a certain direction. In the case of potential, the universalized notion of a singular intelligence means that when demographic groups are disproportionately achieving, we are able to assume they have the potential to achieve, because such intelligence ought to be distributed equally. But is this the case? Or is this notion of intelligence testing an artefact of dominant White cultural scientific enterprise from the early 1900's in the same way standardized testing might be? Do the students who are underachieving in these social groups have the potential to achieve according to our narrow definition of underachievement? Or is the assumption they do have such potential a convenient way of avoiding restructuring the achievement and schooling system?

The boys' underachievement crisis. In a coming section on minority student underachievement discourses in New Zealand I touch on the presence of deficit discourses, which blame a variety of factors for the differential attainment of students across ethnicity. For example, a lack of previous educational credentials in the family or financial barriers. While such factors could make experiences of schooling different, more foreign, irrelevant, difficult, or a number of other possibilities, the conceptualization of these factors as deficits within the individual,

family or culture makes sense within neoliberal governance and within patterns of individualizing and pathologizing problems of 'inefficiencies'. What receives less consideration within overarching patterns of thought and research on the issue of underachievement is the possibility of deficiency within the universalized schooling and testing process. Boys' underachievement, however, is a rare situation in which the deficit is located within schooling and curriculum practices. Why might this be?

Boys' underachievement began to receive high levels of recognition as a crisis (by politicians, policy makers and the media) in the late 1980's. The underachievement of boys, it is said, is evidenced by statistics which compare the achievement outcomes of boys and girls (Griffin, 2000). But Mahony (1998) argues that the statistics used to evoke this sense of crisis are not as clear cut or simple as they are often presented. Elwood (2005) has suggested similarly that much is hidden in statistics used to demonstrate gender differences in the UK's school examination (GCSE) performances.

As an example, the statistics from GCSE examination outcomes leave out considerations of who was included in the examination process. This is significant according to Elwood (2005) as more girls were entered in the GCSE examinations than boys. Further, they point out that while some girls outperformed boys in certain subjects in the GCSE, boys then outperformed girls at that subject in A levels. Mahony (1998) has suggested that some statistics which were formerly used to signify girls underachievement are now being used to signify boys underachievement. None of this is to say that strong trends of girls outperforming boys in some areas do not exist, of course; rather the issue at hand is that the presentation of simplified statistics in discourse on boys' underachievement obscures the complexity and variability of this trend.

Elwood (1995) notes that gender differences in achievement output had been noted prior to the boys' underachievement crisis and tended to involve girls performing better at English and boys performing better at maths. However, since

the introduction of the GCSE examinations in the UK, girls have started to close this achievement gap in relation to mathematics. A similar phenomenon appears to be occurring globally. For example, in pre-tertiary mathematics in Australia, girls have begun to close an achievement gap with boys, with boys now figuring at the highest and lowest achievement levels, and girls scoring on mid to high ranges of achievement. In school-based mathematics, however, girls have begun to outperform boys (SSABSA, 1993, p. 148, as cited in Elwood, 1995). Likewise in the US, the gender gap in mathematics has begun to close, although differences in performances in some areas persist, such as spatial visualisation (Elwood).

In 1996 the Office for Standards in Education in Equal Opportunities Commission in the UK responded to media coverage of boys' underachievement, stating that despite girls performing better at age 16, there is no evidence this has had flow on effects for later in life outcomes (as cited in Jackson, 1998). The Commission's report urged that considerations of education and gender must continue to consider both boys and girls. However, a Guardian UK newspaper, not long after this statement still elected to focus on boys' underachievement and stated that schools are now beginning to prioritize boys, due to their reported underachievement across all levels of schooling (Jackson).

The relative underperformance of girls in areas of science and mathematics has never received the same attention or status of 'crisis' as boys' underachievement. Likely this is because historically, girls underachievement was expected, as it was believed women's strength lay in more domestic tasks, while knowledge advancement was the realm of men (Elwood, 2005). This idea was supported by and entrenched within scientific thought, which viewed the male brain as more suitable for intellectual rigour. When women were first allowed to take examinations in the UK, these examinations were both modified for women and chaperoned, with regular drinks and cold buckets of water on standby in case any

women were to faint during the exam (Kingdon, 1990, cited in Stobart, Elwood & Quinlan, 1992).

Historically it was assumed that intellectual pursuits posed a threat to the woman's delicate body and mind, with overstrain posing a threat to their maternal health and presumed maternal instincts (Elwood, 2005). Boys, on the other hand, were thought to possess enormous potential, but also go through a period of slow or idle learning during adolescence. Cohen (1998) cites a number of scholars and prominent figures speaking on this issue, for example:

if little girls were quicker and generally more advanced than boys of the same age, this was not because they were cleverer. On the contrary, it was because boys were thoughtful and deep that they were slow and appeared dull: 'gold sparkles less than tinsel. (Bennett, 1787, in Cohen, p. 25)

[g]irls are in all countries more precocious than boys, but they stop at a lower point in mental evolution. (Crichton-Brown, 1883, in Cohen, p. 26)

Elwood (2005) argues that boys' underachievement must be viewed within its socio-historical context, and notes that while boys' underachievement has been tackled at a national and Governmental policy level in the UK, previous concerns over girls' underachievement were only targeted with smaller in scale local initiatives. They state that many attempts to explain boys' underachievement have involved blaming feminism, the feminisation of schools, or assumptions that the success of girls has been to the detriment of boys.

Titus (2004) outlines a number of causes offered for boys' underachievement. These include, as mentioned, arguments feminism has helped girls excel at school at the expense of boys. Additional explanations have suggested that schools have become too 'feminized', schools have too many female teachers,

and too many boys are raised by single mothers and lack a father's influence. It has been suggested that boys have not been allowed to exert their physical energy through sport while at school (thereby affecting their school work), that boys have propensity toward neurodevelopmental and psychiatric disorders such as ADHD and that boys are often stigmatized as slow learners at a young age.

Similarly, the Australian House of Representatives Standing Committee on Education and Training's listed the "absence of fathers, the lack of male teachers, inappropriate curricula and teaching strategies, feminization of curricula and assessment systems" as contributors to boys' underachievement (HRSCET, 2002, p.2, as cited in Francis, 2006). In opposition to these popular discourses which pit girls and boys' achievement against one another, Elwood (2005) says

such notions of boys' and girls' performance and the general explanations that are put forward to understand such performance are simplistic and belie the very complex web of factors that interact with gender to create the performance patterns observed. (p. 374).

Archer (2008) has argued similarly that

[r]acialized patterns of achievement are cross-cut by gender and social class and are shaped by histories of migration, arrival, settlement and schooling – and must, therefore, be treated with care. For example... pupils of Chinese ethnic origin tend to achieve among the highest examination results in England, this figure hides considerable patterns and variations within this 'group' (e.g. Vietnamese Chinese may tend to achieve lower than Hong Kong or Mainland Chinese; professional and 'middle-class' pupils achieve higher than their peers from working-class backgrounds; girls may appear to

outperform boys in many subjects; achievement varies between types of school attended; and so on (p. 90).

Discourses which treat underachievement as a problem affecting boys (as though they were a homogenous group) obscure the complexity of this problem and accordingly seem to encourage simplistic solutions (such as making curriculums more masculine).

Griffin (2002) notes that while boys' underachievement is often framed as occurring due to girls increased success, in the underachievement discourses of the 1980's pertaining to ethnicity, African Caribbean students were never conceived of as failing due to the relative success of White students. Of course, the difference here would be that girls achievement has apparently increased more recently, while the achievement of boys has not, which perhaps would make such a claim easier to mount. However, it seems a pertinent point that boys' underachievement seems to be framed in this particular manner, where the success of one group is, in a sense, blamed for the failure of the other.

Boys' underachievement is also particularly unique in the sense that the blame is also located in schooling, teaching strategies and curriculum. Griffin (2000) notes that in the 1970s-80s discourse surrounding the underachievement of African Caribbean pupils in the UK tended to locate the cause of this underachievement as being due to problems with individual psychology or parenting styles within African Caribbean groups. In 1990's boys underachievement discourse, however, the focus is on "help', 'rescue' and the need for practical action" (p. 176). In Titus (2004), there is some focus on individual pathology in boys, although this appears to be restricted to concerns regarding psychiatric and neurodevelopmental disorders (rather than say, cultural or family deficits).

Also notable about discourse surrounding boys' underachievement is that it tends to receive more media coverage than issues of underachievement related to

girls and ethnic groups in the UK. On coverage of ethnic groups underachieving, Griffin (2000) says “[t]he language on which media coverage of these academic reports is based conveys none of the panic or urgency of the ‘lost boys’ debate, unless the words of Black campaigners or politicians are quoted” (p. 184).

Archer (2008) points out that African Caribbean boys have featured within boys’ underachievement research, but that they have been portrayed as a homogenous group with ‘anti-school’ attitudes. Although this research involves a consideration of both race and gender, Youdell (2003) argues that these discourses have tended to demonise African Caribbean pupils, and suggests more complex understandings of these boys (and the institutional racism they respond to) are necessary.

Boys’ underachievement is unique, in that it pertains to the underachievement of a group which has not historically been expected to underachieve. In the minority ethnic discourses outlined below, there is a history similar to that of girls, whereby minority ethnic groups have historically been expected to be of lower intelligence and to underachieve. The intense focus on curriculums, school activities and female teachers is somewhat unique to boys’ underachievement discourse, as is the more explicit reasoning that the school must strike a balance between a culture of femininity and masculinity. We must also consider that the emergence of the boys’ underachievement ‘crisis’ occurred around the same time as school effectiveness movements were taking off. Prior to boys’ underachievement discourses (as will be outlined below) more popularly circulated underachievement discourses related to ethnic minority underachievement.

Recall that the neoliberal orthodoxy involved a shift of focus within educational discourse from equality of opportunity to enterprise, skills training, performance and technological literacy and the school effectiveness movement replaced egalitarian concerns with the idea that improving schools and teachers was enough to neutralise pre-existing inequalities in schools. Boys’

underachievement discourse functions to take the focus off these inequity concerns in a similar way; by depicting the underachieving group as a homogenous whole that are disadvantaged not due to structural racism or wealth inequality, but due to the feminization (or egalitarian reform) which took place within schools during the 70's.

Much as with other sections, the point here is not to find a 'truth' about boys' underachievement. The reason I draw attention to competing perspectives of boys' underachievement and problems with dominant research on this topic, is to demonstrate that the way we theorise and explain this phenomenon is in line with socio-historical conditions of possibility. There are clear differences in the way minority and boys' underachievement are talked about, but this is not simplistically because each has different causes; we do not select those causes (and thus theorise about this underachievement) from a pure theoretical space. Rather theorisations about minority ethnic underachievement being due to perceived deficit in that ethnicity likely take reference from pre-existing discourses which frame non-White ethnicities in deficit terms. While the shock of boys' underachievement and the past suggestions the feminization of schooling must be to blame, likely took reference from pre-existing discourses which implicitly install masculine ideals in notions of intelligence and academic success.

The Minority Underachievement Crisis

I am not implying the pre-existing discourses which structure either of these conceptualisations of underachievement (be it relating to boys or minority students) always functions in an obvious way, however. Understanding this point requires understanding the meaning of discourse in a Foucaultian sense. There are not just continuing and subtle ways through which these ideas are installed in the way we talk about achievement (i.e. the discursive construction of the 'ideal pupil'), but in

the history of whose knowledge about underachievement, education and testing counts, in whose difference counts within education, testing and achievement standards, and in who/what is counted as the norm. It is through understanding discourse in this way that we can see much of the minority underachievement discourse below as a form of violence.

While the boys' underachievement discourse was notable for its emphasis on the need for school and curriculum reform in order to 'help' failing boys, patterns of talking about minority underachievement have historically involved more pathologizing of the individual, their culture and home life. There is also an important history of state engineering and expectation at play here. Boys were not expected to underachieve, but minority ethnic students were the subjects of theories which imagined them to be of lower intelligence and thus placed them at the mercy of policies which sought to assimilate them to presumed superior White cultural values and modes of intelligence.

Shortly I will look at some of the more implicit and difficult to recognise manners in which ethnic minority underachievement discourses are a kind of violence, namely the ways in which they install White male, middle class values as the 'norm' in education, while subjugating, pathologizing and framing as deficit any differences from this norm. Firstly, though I will explore some of the more obvious ways in which education has subjugated ethnic minorities, namely through assimilatory practices. Finally, I will end my analysis by exploring the phenomenon of perceiving of ethnic minority underachievement as a 'gap' and the variety of problems with doing so.

Ultimately, my main contention (based on the historical evidence and the critical, more marginalized work I explore on this issue at hand) is that the dominant culture continues to have a monopoly over the norm and meaning of differences in education, but this is able to occur in seemingly innocuous way, as dominant cultural artefacts are now presented as objective scientific discoveries. In New

Zealand, decisions about Māori underachievement and education are made by the state, and these decisions (which often adversely affect Māori) are frequently espoused in a humanistic rhetoric. The theorisations about causes, solutions and policies offered for Māori achievement are shaped and produced within power relations of Pākehā state control.

Assimilation to the norm. Minority ethnic underachievement crisis discourses began to appear across a number of countries from the 1950's- 60's onwards. Underachievement was beginning to be considered as a broader concept (beyond the realm of giftedness) as tests which allowed 'large-scale' international comparisons began to be used. Smith (2005) argues that international competition is a significant factor in shaping a number of countries education policies and reflects a turn away from concern about education only in a local sense. Comparisons on tests enabled whole countries to be labelled 'underachieving' (compared to their global counterparts) and drove a sense of 'crisis' and need for educational reform (Smith).

Smith (2005) notes that while "[w]ork on underachievement has mainly focused on individual attainment, such as differential performance between girls and boys, it is the perception of a crisis at the national level that can often drive policy reform forward" (p. 10).

The realisation that there were specific 'underachieving' subgroups within countries represents a different kind of crisis though. Troyna (1984) describes the evidence which began to accumulate on underachievement of ethnic minorities in the UK as having

"implications for the meritocratic credibility of the education system, for the relationship of the black communities to that system and, perhaps most importantly, for the development of race relations in the UK" (p. 154).

However, the highly political nature of such underachievement has certainly not lead to effective political solutions.

For example, in the UK the underachievement of British Caribbean youth began to receive attention as early as the 1950's, with these students frequently being placed in special education classes (Tomlin, Wright and Mocombe, 2014). Decades of attention and research to ethnic minority underachievement has occurred in the UK, but Tomlinson (1991) states that

[t]he results of research have been used to fuel political debates, with input from both left and right, about the intellectual capabilities and educational achievements of different minority groups, their likely socioeconomic destination, and the amount and nature of racism in the education system. A variety of explanations has been offered by researchers attempting to discover causal factors behind differential levels of achievement between majority and minority pupils, and between different groups of minority pupils. (p. 121)

Tomlinson argues that despite such lengthy attention to this issue, no sensible solution or answer to this problem has occurred, with theories instead being spurred on and influenced by various political climates.

It was also the 1960's in New Zealand when the underachievement of Māori students began to be talked about. In 1960, the then secretary of Māori Affairs, Jack Hunn, released a report showing Māori feature disproportionately on measures of disadvantage. Much like the UK, a number of attempts to address these gaps have been made since then, with little to no success. For example, a Ka Awatea report released in 1991 revealed little to no changes in differences between Māori and Pākehā on measures of health, education and economic prosperity. Further, Te Puni Kōkiri, the Ministry for Māori Development, released a third report in 1998

which showed these gaps remained entrenched, with unemployment levels and some health indicators even worsening for Māori (Walker, 2004).

Prior to the underachievement crises of the 1960's assimilation of ethnic minority students to white cultural norms was accepted practice. The assimilationist agenda of US education before and during the 1960's was neither implicit nor subtle. For example, the Hampton Institute was set up with the explicit purpose of offering minority populations such as African-American and Native-American students "skills that would bring them to the level of the white middle class" (Kliebard, 1986, as cited in Ng, Staton and Scane, 1995). Banks (1981) states that mainstream education prior to the 1960's involved explicit efforts to train students out of what they perceived as 'ethnic traits' and towards conformity with white middle class values (p. 4). McCarthy (1991) argues that assimilation was rarely challenged prior to this point and was regarded as a "highly desirable social goal", even amongst some minority academics (p. 303).

Much like the U.S., New Zealand educational policy had an assimilatory agenda for Māori. Simon (1990) states that assimilationist ideals emerged in New Zealand as the British settlers began to outnumber the original Māori inhabitants. They argue that assimilation represented a humanitarian and idealistic desire to protect Māori from negative European influence and eventually lead towards a harmonious integration of the two races. For example, in the 1844 Native Trust ordinance (which Johnston (1998) argues formed a basis for many other assimilationist policies) stated that

[h]er Majesty's Government has recognised the duty of endeavouring by all practicable means to avert the like disasters from the native people of these islands [New Zealand], which object may best be obtained by assimilating as speedily as possible the habits and usages of the Native to those of the European population. (as cited in, Simon, 1990, p. 72)

Practically, assimilationism gave Māori formal equality; they were afforded the same legal status as Pākehā citizens, however, segregation and preference to Pākehā values clearly existed in the New Zealand schooling system (Johnston, 1998). For example, most Māori students were not included in Pākehā schools or curriculums; instead an Act was passed in 1867 to establish a Native School system for Māori. Native schools ran separately to the board-controlled public schools which Pākehā would traditionally attend and involved significantly different curriculums (Johnston).

In *Nga Kura Māori* a dedicated history of the Native Schooling system, Simon (1998) argues that after the signing of the Treaty of Waitangi in 1840, education was generally seen as a means to 'civilise' Māori. Framed in rhetoric of assimilation and equality, the settler Government saw education as a way of training Māori out of their cultural heritage, and shifting them towards the supposed 'superior' values of the British settlers. The focus in these native schools was on learning the English language and Te Reo was only acceptable so far as it helped with this goal (Simon).

The curriculum in Native Schools was based on British forms of knowledge, but history, grammar and science were omitted. Simon (1990) argues that the omission of history, grammar and science from the curriculum may have appeared justifiable on the grounds that extra time and resources were needed to teach Māori students English, however, "the omission of history can be seen as a means of cultivating social amnesia and thereby reinforcing social control" (p. 94). Indeed without access to certain knowledge in early New Zealand capitalism, Māori had limited chance at the sort of economic advancements available to Pākehā.

Pākehā schooling was not completely rejected by Māori at the outset, however. Prior to the Native Schools Act, schooling for Māori was established by Pākehā missionaries in 1816. The establishment of this schooling purportedly led to a widespread demand for books, with Māori people offering to receive books

instead of wages. There were numerous claims of Māori success with English literacy; Bishop Pompallier wrote that Māori could learn to read and write in Te Reo within just a few months after being given basic materials. One missionary even recorded that Māori mastery of reading skills was greater than Pākehās (Simon, 1998).

Tamihana Te Rauparaha and other Ngati Toa chiefs donated money and land to the creation of a school in 1858, and explicitly requested an English Headmaster. However, as Simon (1998) points out, the Māori and Pākehā hopes for education were quite different. With Māori's status and land being under threat by a growing settler population, Pākehā education served as a means of extending Māori knowledge and enabling them to maintain their power, sovereignty and land within an increasingly Pākehā society (Simon).

Johnston (1998) argues that Māori viewed Pākehā culture and knowledge as something which could be harnessed in conjunction with their culture, a way of extending their own knowledge base and ensuring their ability to protect their resources and sovereignty (which were always negotiated on Pākehā terms/language). The Pākehā vision of assimilation on the other hand, involved the eradication of Māori difference and the expected obedience of Māori to 'superior' Pākehā values. Māori were not given space for their own 'enlightenment age', they were not able to develop their own educational system based on their cultural values and beliefs, but rather were expected to defer to Pākehā ones.

Many Māori expressed outrage when in the mid 1850's an Otaki school report revealed that Māori students spent nearly four times as many school hours doing hard labour than learning in the classroom. Parents are recorded as making complaints such as "we thought you took our children from us to give them schooling but instead you are making slaves of them" (p. 29, Simon, 1998). Likewise, when the Native Schools system was implemented, the curriculum focus was on 'practical skills' rather than the development of intellectual skills, with the

exception of a few Māori pupils who were offered scholarships in the hope of creating a 'Māori elite' to interface with Pākehā. Simon (1990) points out that low expectations of Māori educational achievement were used to justify this policy, although this of course sits in contradiction with early reports that Māori were tremendously successful at Pākehā-style schooling. The Department of Education's insistence that Māori's talent lay in labour rather than mental skills (Simon) will likely make more sense in a later section on comparative ethnology and the history of IQ testing.

It was surrounding concerns of minority ethnic underachievement that assimilationist practices began to be called into question. McCarthy (2006) positions the uprising against assimilationist curriculums and schools in the US as following realisations that minority populations were continually worse off in education, and on other measures such as employment and housing. Deeply challenging what Carter (2008) describes as a well held belief that the United States was a place where success is borne of merit, a realisation that social mobility was impeded by structural conditions began to emerge. Banks (1981) argues that some white minority students were able to be integrated into the dominant culture and share its social capital, however, those of Black, Hispanic and Native American origin appeared to be largely excluded from the privileges of white middle class America (i.e. access to housing and employment).

Stephenson (2006) also points out that a landmark US Supreme Court ruling in 1954 that the use of ethnic segregation in schools was unconstitutional, as well as a more general civil rights movement "stimulated debate and wider political protest about the implications of racial inequality, even if it did not precipitate an immediate policy response elsewhere" (p. 315). By the time civil rights movements started to throw practices of segregation, including the Native Schools, into question, there were a number of surrounding conditions of possibility which might also be considered as making a shift away from assimilation policy likely.

Firstly, however, it should be noted that despite the state ambition to use segregated schooling to assimilate minority students to the dominant culture, it appears some Native Schools and segregated schools in America had become sites of resistance to the dominant culture. Stephenson (2006) explains that more recent historical evidence, has suggested segregated Black education was not as unanimously awful as suggested by the state during integration, but rather contained sites of resistance, where culturally supportive and high quality teaching was able to take place. Likewise in New Zealand, recent historical accounts demonstrate that some of the Native Schools may have given Māori a number of benefits denied to them post integration; namely, family/community involvement in the schools and a feeling of separate identity.

Thus Stephenson (2006) concludes:

[t]he story of the closing of the Native Schools is not a simple story of domination and passive compliance. In many cases Māori found security within the whanau (wider family/community) environment of the Native School and, with programmes shaped to cater for their needs, many of them flourished academically there. The Māori communities, in turn, came to regard the schools as their own, and supported and valued them. (p. 321)

The integration policies which were later positioned as the 'right' step forward for human rights and as a significant movement away from racial oppression, were thus not quite so simply so.

In terms of surrounding conditions of possibility for a shift from assimilation to integration (and the recognition of 'Māori underachievement'), perhaps most notably an 'urban drift' was occurring, involving a significant number of Māori moving to urban areas following World War II. Stephenson (2006) describes the dominant liberal-progressive sentiment of the 1960's as being that the abandonment

of the Native Schools was 'appropriate' given that many Māori were now being integrated into urban life already and thus had already been seeking to 'better themselves' (p. 308).

This urban drift might be partially understood in light of the post-World War II economic boom which saw a significant shortage of workers in New Zealand. Bedford, Ho and Lidgard (2000) explain that

[t]hrough the 1950s and 1960s, as the New Zealand economy underwent a major industrial transformation associated with development of an import-substitution manufacturing base, Pacific Island colonies provided a convenient labour reserve. Labour migration was encouraged through a number of work permit schemes, and the immigration authorities tended to ignore those 'overstaying' their work permits while the demand for unskilled cheap labour remained high. (p.17)

Previously the use of Native Schools in the production of manual rather than mental skills effectively produced an underclass of Māori labourers. During the economic boom, however, that role began to be filled increasingly by workers from the Pacific islands. Thus Stephenson (2006) argues that because Māori were successfully "socialized under the colonial regime to be a conforming and productive agricultural proletariat", they were able to become the "new urbanized industrial worker" (p. 314).

An article termed '*Investment in Human Capital*' by Schultz (1960) in *The American Economic Review* expresses a growing sentiment of the time well. Schultz states that

[a]lthough it is obvious that people acquire useful skills and knowledge, it is not obvious that these skills and knowledge are a form of capital, that this

capital is in substantial part a product of deliberate investment, that it has grown in Western societies at a much faster rate than conventional (nonhuman) capital, and that its growth may well be the most distinctive feature of the economic system. It has been widely observed that increases in national output have been large compared with the increases of land, man-hours, and physical reproducible capital. Investment in human capital is probably the major explanation for this difference. (p. 1)

Schultz contends that the successful economic growth of a country hinges on the migration of workers to opening employment opportunities. He notes that men of colour are traditionally paid far less for equivalent jobs as White men, but explains this in terms of the 'lack of education' of the former. He positions the migration of young men and women as being particularly ripe for the 'growth of human capital', as they "move more readily than older workers' (p.5).

Smith (2005) notes that the continued importance of the large scale internationally comparative tests discussed above likely hinges on the growing sentiment that western industrialized countries need to develop a highly skilled workforce. As labour involving less technical skill began to be outsourced to non-western countries during the process of economic globalization, education became a significant tool for growing a country's economy. Education, it is presumed, is the way to create a competent workforce and a booming, competitive economy. Thus the 'underachievement' of part of a country's possible labour force becomes a significant 'crisis'.

If we are to look at the New Zealand context again for a moment; what is notable about the discourses of Māori educational underachievement which emerged in the 1960's, is that the differential attainment was called 'underachievement' at all. While Hunn (1960) 'discovered' the differences in achievement between Māori and Pākehā (which he then used to justify a policy of

'integration'), this discovery is not of underachievement in the traditional psychological sense. In other words, unlike the gifted underachievement crisis, the declarations of Māori underachievement in the 1960's were not clearly based on differences between potential (as traditionally measured by IQ) and achievement output, but rather appear to be mostly based on a realisation of differences in achievement output between these two social groups (thereby fitting more with sociological definitions of underachievement).

There does not appear to be any significantly sized body of research on Māori underachievement (in the psychological sense) which occurred around the 1960's at all, although there were studies prior to the 1960's which conducted IQ tests on Māori children (i.e. Ritchie, 1957). One study which did explicitly study underachievement under the psychological definition was in 1964 by Lovegrove. This study, termed '*Māori Underachievement*', conducted tests on 54 Māori and Pākehā children and found no significant difference between the two group's performances on scholastic tests. Smith (1956, as cited in Lovegrove) found similarly that there was little difference in achievement output for Māori and Pākehā children.

What Lovegrove (1964) did find, however, was that Māori did not attain scores as high as their Pākehā peers on IQ tests. The culturally biased nature of IQ tests will be explored, further in, but for now it is worth noting that Māori do not clearly fit the psychological definition of 'underachievement' at all here. Instead, if we are to take the IQ test as the best determinant of potential, then we might say that Māori students were 'overachieving' - that pesky conceptual possibility that Plewis (1991) referred to as rendering psychological definitions of underachievement as somewhat imperfect. Why then was this phenomenon so frequently called 'underachievement' and not failure? One possible reason was that the term 'underachievement' evoked a sense of missed potential and surrounding labour conditions may have been rendering Māori potential in new ways.

The advent of 'Māori underachievement' raises a number of questions about the dominant implicit assumptions of Māori potential. For example, if Māori were formerly assumed to not have the potential to succeed in mainstream Pākehā schooling, then why is integration into Pākehā schooling suddenly offered as a kind of solution to their underachievement? This is particularly strange, given that mainstream schooling was thought to sit above Native Schools, with part of the original justification for these schools being that Māori were supposedly better suited to menial rather than mental labour. Further, if Māori students are underachieving compared to Pākehā (as began to be claimed from the 1960's) then is it assumed they in fact possess the same potential as Pākehā to achieve academically?

The comparison of Māori and Pākehā achievement, the use of the term underachievement and the eventual amalgamation (granted Māori were offered 'remedial' classes during the early stages of amalgamation), suggests an implicit reimagining of Māori potential. However, views of Pākehā imagined cultural superiority were certainly still occurring. The Hunn Report itself, contained a typology of Māori with a hierarchy, depicting some as 'a completely detribalized body of Māori with a vestigial culture', or as 'complacently living a backward life in primitive conditions' (Hunn, 1960, p. 15- 16), before arguing that Māori needed to be 'integrated' into Pākehā culture.

Tracing exactly how and why Māori potential was reconceptualised would constitute a significant and lengthy research task in and of itself. From an overview of the surrounding conditions, however, we might infer that the changing labour conditions, the production of a 'new underclass' of migrant workers who have not been assimilated into dominant Pākehā values, the need to 'capitalize on human capital' and the increasing visibility of civil rights movements created the conditions of possibility for a shift from assimilation to integration. The changing labour markets in particular rendered Māori a significant source of labour potential and thus it

becomes more convenient for the state to have them under the control of mainstream schooling and to have them processed efficiently toward the labour market.

But this shift was likely connected to the global context too. Recall, Smith's (2005) argument that the importance of the kind of international comparative testing which rose to dominance from the 1960's onwards was largely in what it said about a country's economy, or future workforce. New Zealand was likely part of a broader global movement to expand the workforce and in doing so begin to consider 'upskilling' parts of the population previously assumed not to possess such potential. We might understand the implicit reimagining of Māori potential to succeed in Pākehā education as being shaped by surrounding conditions of possibility and a shift to integration as fulfilling state economic needs, rather than simplistically being a humanistic movement on behalf of the New Zealand Government then. I draw attention to these broader social forces which likely structured the move away from assimilation to demonstrate that this 'humanistic progress' is determined by more than the good will of Pākehā legislators, and that instead the construction of Māori as 'underachieving' fit with dominant economic and social needs.

Deficit and the treatment of difference. Certainly the initial results of this shift from assimilation to integration were not simplistically a progress to more humanistic treatment of Māori or ethnic minority students. Stephenson (2006) notes that where the shifts from assimilation to integration were occurring worldwide

the impact of colonization, racism and the imposition of unfamiliar values and laws were now exacerbated within unfamiliar contexts, and were reflected in the schooling experiences of the children. Linguistic and cultural differences were seen to be generating disadvantage, but cultural

hierarchies were not acknowledged in the common sense cultural arbitrary of the schools. (p. 314)

Indeed there were instances where integration was made enormously difficult due to the racist attitudes inherent in Pākehā schooling, leading to widespread truancy by Māori students (Stephenson).

Despite this, once the Hunn report revealed differential achievement outcomes between Māori and Pākehā, rhetorics of equality of opportunity emerged within New Zealand. Essentially these rhetorics positioned New Zealand as a place where Māori had an 'equality' with Pākehā, in that they were both given the same opportunities (education). It was thought, however, that some Government intervention may be necessary to rehabilitate the assumed 'cultural deficits' of Māori students in order to achieve this equality (Johnston, 1998).

Practically, however, the sense in which New Zealand's educational system had historically served the dominant group far more than it ever served Māori was left out of this rhetoric. Johnston (1998) points out that Pākehā have effectively engineered Māori's relative disadvantage in education, but because equality of opportunity was simplistically defined as all citizens being subject to the same rules, regulations and possessing the same rights, it was still possible to claim Māori and Pākehā had an equality of opportunity. Further, a progression from assimilation to integration was able to be framed in 'humanistic' terms as a movement away from racism. The provision of 'remedial programmes' for Māori students maintained the Government's position as a paternalistic helping force, and positioned Māori students in terms of deficit.

These remedial programmes, which began to be commandeered from the US following the 'discovery' of Māori underachievement, sought to 'compensate' "for the deprivation that members of low socio-economic groups and ethnic minorities in urban settings were perceived to be experiencing because of their cultural

differences” (Johnston, 1998, p.111). Simon (1986, in Johnston) states that in 1962 a Currie Commission report on education made the Māori child a focus within research and began to examine what was ‘wrong’ with their culture, language, family, home environment and upbringing, in order to know how to adapt or rehabilitate them toward the Pākehā system of education. It was then recommended that ‘compensatory programmes’ for Māori be adapted in a 1967 New Zealand Educational Institute report (Johnston).

An Education Department inspector from the time has described the ‘compensatory education’ as involving teaching Māori students that while Māori childrens’ classroom behaviours may feel ‘natural’ to them, they were not acceptable within schooling institutions (Ennis, 1990, in Johnston, 1998). Johnston describes this ‘integration’ period following the Hunn report as defining cultural difference as everything which was not Pākehā, while Pākehā culture began taking on an implicit status of the norm. Rather than being framed as ‘culturally deprived’ Māori began to be framed as simply ‘culturally different’, but while this was the explicit sentiment or discourse, Māori were still depicted as inferior in practice (Johnston).

The reimagining of Māori as having the potential to succeed in mainstream education (and thus the labour market) did not involve a clear cut from the explicitly racist hierarchical treatment of Māori. The phenomenon of perceiving Māori children and culture in deficit terms is well studied, and certainly not specific to New Zealand. The history of deficit thinking, the various forms it has occurred in and the various practices it has been used to justify are well tracked in *The Evolution of Deficit Thinking: Educational Thought and Practice*, edited by Valencia (2012). For the purposes of this thesis it is worth noting that deficit thinking about minority ethnic students existed long before practices of individual psychology and tendencies to reduce social problems (particularly those relating to ‘inefficiencies’) to individual pathologies.

Valencia (2012) notes that the deficit model of thinking can be found in racist discourses spanning as far back as the 1600's. The supposed deficits can be traced and understood in relation to surrounding dominant ideological and academic practices. In the 1890's deficit thinking was used to justify segregation practices in American schools and in the 1960's and onwards we see it being used to explain ethnic minority underachievement post-integration. Just as the concept of potential was a malleable, political tool, so too is the use of deficit theorizing.

In New Zealand deficit theorizing about educational 'gaps' between Māori and Pākehā essentially served to construct Māori on negative terms and help install Pākehā as the norm. As Smith (1994) says:

[t]hrough the history of education reform, Māori were said to have problems with their families, their homes, their self-esteem, their language, their minds and their attitudes and there were a number of theories to back this up, deficit theories, cultural deprivation theories, and self-esteem theories and so on. The history of education reform has been one of viewing Māori as having cultural impediments. The dominant group is not considered to have a culture, therefore they have no impediments. (p.148)

Indeed, what constitutes deficit is defined on Pākehā terms. For example, the Hunn report measured how Māori compare on measures of employment, health and education, but these concepts are both defined by Pākehā and leave out aspects of success such as being able to live as Māori, which Durie (2001) describes as being essential to Māori visions of wellness.

Valencia (2012) argues that of all the theories used to explain minority ethnic underachievement, it is those situated in notions of deficit which have "held the longest currency" (p. 2). Deficit thinking, however, has come under serious disrepute by behavioural and social scientists (Valencia). It has also received a

significant amount of Government attention in New Zealand. In 2009 the New Zealand National Party distributed over \$20 million to Te Kotahitanga, a programme aimed at moving teachers away from deficit discourse and towards more 'agentic' ones (Thrupp, 2010).

Thrupp (2010) and others have critiqued the policy on the grounds that it is likely supported by National due to its convenience to their neoliberal position on education, and belief that poverty is too often used as an excuse for Māori underachievement. Thrupp states that Nationals support likely

lies in the general political malleability of what is essentially a school effectiveness initiative. That is Te Kotahitanga would appeal to any government that wanted to put responsibility for student failure on the shoulders of schools and teachers. For instance, by strongly dismissing sociological arguments about the impact of socio-economic status on Māori achievement as "deficit-theorizing". (p. 39)

While Black (2008) describes the policy as a "vaguely Orwellian approach - acting as though all other influences in a child's life do not exist" (as cited in Thrupp, p. 40)".

Just as deficit thinking enters and is informed by a history of power-relations, so too is anti-deficit thinking structured by such forces. The absence of explicit deficit thinking does not immediately or by itself disestablish the Pākehā as norm, or western models of intelligence, achievement and assessment. Nor does it eradicate the effects of state engineering which advantaged Pākehā over Māori in New Zealand education. A clear theme which has emerged throughout the underachievement discourse section so far, is that 'progress' which is often positioned as humanistic; as the world steadily becoming more tolerant, inclusive and less oppressive (i.e. the shift from assimilation to integration, the move to raise

the achievement of the working class in the UK and the shift away from deficit discourses here) is rarely so simple.

Humanist 'progress' is made possible by surrounding conditions of possibility; it takes reference from its surroundings and can only move so far as is made possible. In other words, there does not seem to be a straight forward jump from the explicit racism of a few decades ago to no racism at all. Instead policies which claim to address the disadvantage of minority and working class populations are able to function in a way which still benefits and suits the status quo. This sentiment is echoed by a number of researchers who have critiqued programmes in higher education which aim to increase and accommodate diverse cultures. For example, Matus and Infante (2011) comment on diversity discourses in higher education and state that

[b]y insisting on differences among groups and not problematizing the ideal of normalcy against which these differences are constructed, the notion of normal is naturalised. Repetition and circulation of discourses of essential differences under the rhetoric of diversity preserves and unproblematized regulatory order and hierarchical organization of normalities and differences which needs to be analysed within the context of universities responding to the market imperatives. (p. 293)

Put differently, discourses about diversity and inclusion, which appear at their root a positive humanist progression, will not always achieve their aims in an uncomplicated fashion. While seemingly humanist progressions and values of enlightenment are themselves made possible through conditions of possibility, these progressions enter and are structured by a history of power relations which are their antithesis; in other words, anti-racist discourses enter a history of racist power relations.

On anti-racist rhetoric employed within education, Gilborn (2006) says “[s]imply asserting our anti-racist intentions means nothing if we leave unchanged the dominant systems of testing, the curriculum, teacher education, and punitive inspection regimes that penalize schools serving schools serving working class and minoritized communities” (p.15). Gilborn (2006) contends that managerialist style culture in education leads to change which simply ‘tinkers’; making “outputs slightly less awful, but leaving untouched the fundamental shape, scale and purpose of the system itself” (p. 18). Likewise, in the New Zealand context, Bishop (2000) concludes that what limits

significant advancement being made in addressing Māori achievement in mainstream education institutions, including teacher education institutions and classrooms, is that current educational policies were developed and continue to be developed within a framework of colonialism and as a result continue, consciously or unconsciously, to serve the interests of colonialism. (as cited in Rata, 2011, p.13)

While humanist policy and discourse may appear to make progressions on behalf of minority or oppressed populations, the power balance may still remain largely in favour of the dominant culture.

How does this all relate to underachievement? It suggests that concerns about underachievement (often presented in humanist terms; the state’s concern for the ‘crisis’ of Māori or African American students, for example), will be structured by surrounding forces, and rarely represent a simple ‘concern’ or aim to ‘progress’ society in an egalitarian fashion. The nature of ‘underachievement’ as an object of discourse relating to minority students continues to take reference from a history of colonisation and oppression, and of White cultural values as the ‘norm’.

The 'ideal pupil'. As a prime example of this continued dominance of White values in education Archer (2008) has conducted a review of discursive analyses of ethnic underachievement which shows how characteristics relating to white, middle class western males are instilled as the ideal or norm. They state that

[t]he privileged identity of the ideal pupil is effectively preserved via a splitting and projection of undesirable attributes onto Other groups. In this way, minority ethnic success is always-already positioned as 'abnormal'/other and as potentially undesirable – it is always characterised as the 'wrong' approach to learning. (p. 101)

For example, even though British Chinese students are some of the highest achieving students in the UK, Archer and Francis (2005) found that Chinese girls tended to be positioned as achieving through almost excessive hard work, as 'repressed' and 'non-sexual' and as belonging to a repressive and restrictive culture. Indeed similar patterns of discursive positioning could be found about girls more generally; for example, see Cohen (1998) for a history of girls achievement being framed in terms of 'morbid diligence' and 'overstraining'.

In their review of studies on the discursive positioning of students success, Archer (2008) concluded that the ideal student tends to be constructed as someone who sits outside of culture, is active, naturally talented, assertive, takes leadership and is independent. Otherised pupils tend to be constructed as passive, dependent, diligent, repressed, conformist and followers rather than leaders. While demonised pupils are portrayed as possessing qualities such as hyper-femininity or hyper-masculinity, being aggressive, peer-led, anti-social, victims of a bad culture, disengaged, rebellious and hyper-sexual.

Disability and giftedness. We might also understand the continued dominance of these White cultural norms in terms of how difference relating to

minority students is treated. Namely, the ways in which differences from the established norm of White male middle class characteristics can lead to over-representation in disability programmes and underrepresentation in gifted programmes.

The over-representation of African American students in special education has reached what has been termed a 'hegemonic status' (Jordan, 2005), despite decades of recognition and research into possible explanations of this phenomenon (Patton, 1988). Jordan (2005) argues that once discourses become entrenched as hegemony, people have difficulty acknowledging them as social constructions or as arbitrary, rather than objective realities.

Pernell (1984) reviewed a number of studies on how race and social behaviour affected teachers' and school psychologists' decisions to place students in special education programmes. To summarize the studies, more black than white students were selected for special education programmes, however, some studies suggested the teachers and psychologists made placement decisions based on variables such as parents education background, in class achievement, test and IQ scores, the students self-concept, adaptive behaviours and 'home related anxiety', rather than due to an overt racial bias.

However, Pernell (1984) also reviews a number of studies which do demonstrate ethnic biases in special education placement decision making. For example, Mehan, Hertweck, Combs, and Flynn (1981, as cited in Pernell) and Tobias, Cole, Zibrin and Bodlakova (1982), the latter of which reports that teachers tend to refer students of a different ethnic background than their own to special education. Kaufman, Swan and Wood (1980) found that agreement regarding assessment of student behaviour as 'emotionally disturbed' was more agreed upon when the ethnicity of the assessor and the assessed was the same.

Ultimately, Pernell (1984) concludes that a student's ethnicity is likely one of many considerations in special education placements. Primarily, they suggest that it

is because behaviours of some black students are not designated as 'normal' that they tend to be perceived of as in need of a special education programme which targets these behaviours. Indeed Parnell (1984) describes special education programmes as helping to 'normalize' students, and fulfil their potential. A suggestion likely not agreed upon by Patton (1998), who speaks of special education programmes as denying students' access to a full education and leading to a stigmatization of those students. Further, Patton notes that placement in these programmes is related to lower achievement levels and limited employment opportunities.

A large majority of special education placements are based on teacher referrals and judgements. These judgements are not necessarily (although they may be) overtly racist, but rather may simply be making reference to a wider body of what is considered normal or deficit student behaviour. Jordan (2005) argues that

[t]he persistence of overrepresentation speaks clearly to the need to address the question of how difference is constructed and addressed within the context of schools. We must ask and seek to answer the question: What difference does difference make, and why? (p. 131)

They suggest further that it is only when students behaviour is viewed within its broader social context that it can be revealed as 'relevant and consequential'. However, as touched on numerous times, students' subjective and experiential knowledge of the schooling system is not a common feature of mainstream educational or psychological research.

We might recall the aspiration discourse here and the way in which, because such subjective experiential knowledge was excluded from the research canon, it became possible to understand working class underachievement as being due to a failure of aspiration. When one understands underachievement as a problem within

the individual and as problem for educational research to solve (toward norms of efficiency), pathologization and then rehabilitation of the individual logically follows. However, what more critical and marginal research on aspiration showed was an entirely different experience of education and aspiration alike by students across lines of gender, culture and class. Research which draws knowledge from the individual themselves, rather than studies them as an object to be known and controlled, is capable of producing reason and rationality for actions which sit outside of the accepted norm of educational behaviour.

It is with this in mind that we can understand why the exclusion of such knowledge from mainstream research canons is violence, and see that this is a violence which particularly affects those who sit outside of the 'norm'. Jordan's (2005) argument that a consideration of social context is necessary to understand student behaviour as relevant and consequential is significant; it is such knowledge which gives rationale to students 'non-normative' actions; a possibility denied by mainstream psy-discourses. For example, recall the work by Fordham and Ogbu (1986) and Carter (2008) featured above which explores the distinctly different experience of education by Black students. When students' experiences sit outside of the presumed white, middle-class experience, a simple progression through the inherent logic of mainstream education may not be as rational. If one is going to face a job ceiling, if one is going to have cultural differences defined as pathology, if one is bound to an educational progress which has historically been used for their subjugation, ought their actions be contorted to fit the 'norm' of student behaviour?

The issue here is not just that problems such as underachievement become individualized and pathologized, however. Because there is an assumed sort of objectivity to many categories produced within psy-discourses (i.e. 'learning disabled' or 'gifted student'), students are also be able to lumped into groups which are assumed homogenous. This has occurred in relation to gifted students, where the category is thought to refer to a universally experienced kind of condition, and

thus dictates a universal sort of response. Sapon-Shevin (2003) notes that school districts provide gifted-students with a 'rigid, undifferentiated curriculum', assuming that what is good for one gifted student will be good for all of them. Equally, they note that so called 'normal range' students (i.e. those neither in special or gifted education programmes) are not given access to 'gifted programme' curriculums, despite there being no evidence that such curriculums would not also be good for them. It is as though then, there are three possible groups of students; learning disabled, normal and gifted, and it is assumed each group is universal enough to benefit from the same programme.

The under-representation of Black students in gifted programmes is certainly a problem, however. Ford and Grantham (2003) note that the presence of high scoring black students who do not get labelled as gifted has long been a concern, with the number of black students in schools being disproportionate to their placement in such programmes. They argue that because black students' intelligence may manifest itself in ways which differ from the narrow theories of intelligence and giftedness, they are often not assumed to fit the normative imaginings of these concepts. Ford and Grantam (2003) add that "[f]ew definitions and theories consider that different cultures view intelligence and giftedness in different ways; what is valued as gifted in one culture may not be valued as gifted in another culture" (p. 219). They note further that that there are intelligence tests such as Naglieri Non-Verbal Ability Test and Raven's Matrix Analogies Tests which appear to be more culturally suitable for black students. However, traditional intelligence tests continue to be used, despite the fact that they appear to be most effective at "identifying middle-class White students as gifted" (p. 221).

Cross (2003) points out that the inclusion of students identified as gifted by means other than traditional IQ tests may lead to the creation of a kind of 'second-class citizenry' within gifted programmes. Namely, because the view of giftedness as determined by IQ is so dominant, and because "the dominant paradigm creates

the language in which conversations are held" (p.78). This point is illustrated well by Sampson (1993), in their comments on how technologies of power limit communication;

[i]nsofar as the speaking parts that are available to the cast of humanity have already been scripted in ways that implicitly represent the standpoint of dominant societal groups, merely to have a speaking part is still not to have one's own groups' interests, point of view, or specificity represented in a genuine dialogue. If, in order to be heard, I must speak in ways that you have proposed, then I can be heard only if i speak like you, not like me. Rather than being an equal contributor, I remain enclosed in a discursive game that ensures your continuing advantage. The clear message is that current forms of cultural and psychological practice deny certain groups any possibility of being heard in their own way, on their own terms, reflecting their own interests and specificities, and that this condition does not reflect mere change but rather reflects the operation of the power of those in charge to dictate the terms by which psychological and social reality will be encountered. (p. 1220)

Put differently, the issue is not simply increased inclusion in gifted programmes, but that the terms of being intelligent, gifted or even a 'normal' student are structured by the dominant cultural order. In order to be 'heard' as intelligent, students must speak and act in accordance with the mandated norms of what constitutes intelligence. These terms, of course, have their nature as cultural artefacts concealed through their representation as being based on objective and neutral scientific progression, and in this way they are able to function as technologies of power.

The imperial empirical reality. Recall earlier that I noted racial deficit thinking existed long before the practice of individual psychology and testing. We

might understand individualized psychology and psychometric testing as giving a new kind of 'scientific credence' to pre-existing imagined racial hierarchies. But this was not a sudden attempt to make scientific these racial prejudices; there is a long history of attempting to provide some 'objective' justification for the supposed racial hierarchy. The study of human capacity and of IQ is intricately connected to practices of racism.

In New Zealand, learned societies dedicated to the scientific process and production of knowledge for the imperial centre began to develop in the nineteenth century (McClellan, 1985, as cited in Mead). In 1867 legislation was passed which established a learning institute (The New Zealand Institute) and a museum which lead to the first journal of published research on Māori. One of the research focuses of this journal, and for many scientists at the time, was 'comparative ethnology'. This involved the creation of taxonomy of ethnicities and comparative research on the designated groups. Europeans were imagined at the top of racial hierarchies, and were assumed to be biologically and culturally superior (Mead, 1996).

The assumptions of the enlightenment era were that it was possible to understand, know and control the world; namely, through the scientific process. In the nineteenth century it was thought that through scientific methods universal and immutable laws of human nature could be discovered (Mead, 1996). In line with the imperial ambition to colonise indigenous peoples for economic and cultural purposes, it was also thought that indigenous societies could contribute to the European knowledge base by "showing the most simple, most fundamental systems of social organisation" (Mead, p. 135).

The emergence of this line of inquiry (known as comparative ethnology) was clearly influenced by social factors of the time. As Spoonley (1988) points out, the scientific knowledge of European's as a 'superior' race was used as an ideological justification for the worldwide colonial expansion and exploitation of indigenous communities. Similarly, the construction of a racial hierarchy (for which White's sat

at the top) was used to justify the continued enslavement of African-Americans in the U.S. But these hierarchies were not constructed following the discovery of empirical data that supported them, rather 'scientific evidence' (now dismissed as pseudo-science) confirmed pre-existing prejudices.

For example, Gould (1996) notes that prior to evolutionary and Darwinian theories of race 'monogenism' and 'polygenism' were the two popular competing theories of ethnicity. Monogenism held that race was a kind of degradation from the perfection of the human form following its creation in the Garden of Eden. It was thought that these differences were largely caused by climate, but their effects were irreversible, with coloured people having irreversibly degenerated more than white people. Polygenism was a slightly less popular view that race pertained to separate biological species, and coloured people were not of the same human species as white people. From this theory followed the notion that 'equality of man' was not applicable to people of colour, as coloured people sat in a separate biological category, and thus were not privy to such privileges.

In the latter part of the 19th century, when evolutionary theory rose to dominance, the field of anthropology began to align more greatly with positivist and empirical approaches to science. As Gould (1996) says:

the allure of numbers, the faith that rigorous measurement could guarantee irrefutable precisions, and might mark the transition between subjective speculation and a true science as worthy as Newtonian physics. Evolution and quantification formed an unholy alliance; in a sense their union forged the most powerful theory of "scientific" racism. (p.106)

What followed was what Johnston (1998) describes as a theoretical great chain of being; a hierarchy of race which could now seemingly be justified by hard empirical data. The latter half of the nineteenth century was dominated by these empirical

measurement techniques which appeared to give new credence to the study of comparative ethnology. Biological and evolutionary scientists got involved in the endeavour, producing data which might ultimately be summarized as a 'study of difference'. For example, measures of the way in which African Americans differ physically, in terms of skin colour, bone structure and brain size were taken (Johnston, 1998).

A prime example of this work is by Paul Broca, a professor of clinical surgery who founded the Anthropological Society of Paris in 1859. Broca's key assumption was that brain size directly correlated with intelligence. He asserted that "in general, the brain is larger in mature adults than in the elderly, in men than in women, in eminent men than in men of mediocre talent, in superior races than in inferior races" (1861, p. 304, as cited in Gould, 1996).

In 1866 Broca went on to conclude that dark skin, 'wooly' hair and a forward-jutting face was associated with "intellectual and social inferiority" (as cited in Gould, 1996, p. 280) and white skin with the most superior members of human society. And in 1878 Broca mused that an African-American woman was remarkably similar to an ape. These are summaries of Broca's work which now seem absurd and extreme in their racism, however, Broca was a meticulous and influential scientist, and his comparative ethnology was far from a lone venture (Gould).

Gould's (1996) book *The Mismeasure of Man* provides a significant and lengthy challenge to Broca and similar scientists work on race and intelligence. For the purpose of this thesis there are a few important lessons to take from Gould's challenge;

[t]he human body can be measured in a thousand ways. Any investigator convinced beforehand of a group's inferiority, can select a small set of measures to illustrate its greater affinity with apes...Broca's cardinal bias lay in his assumption that human races could be ranked in a linear scale of

mental worth...It did not occur to him that human variation might be ramified and random, rather than linear and hierarchical. (p.118)

A decade after Broca, Francis Galton, the cousin of Charles Darwin, began to measure individual differences in humans (such as differences in reaction times, sight, strength and weight). His motivation was the idea that "if individual differences are fundamental to our understanding of human evolution, they should be identified systematically and studied with scientific precision" (p. 205, Hanson, 1994). In 1883 Galton coined the term 'eugenics', the idea that birth rates ought to be engineered. His belief was that because lower classes tended to be overpopulated with people of lower intelligences, intelligent people must mate in order to engineer future human populations as intelligent. Intelligence, he theorised, was a deeply heritable trait (Hanson).

Galton's tests focused largely on measuring physical traits. Although he believed these physical traits were indicative of intelligence, there was certainly an opening for someone to develop more 'mental based' tests and Alfred Binet, a French Psychologist, was the first to begin to fill this gap. Binet, charged with developing a method for identifying learning deficiencies, was the first to develop a mental test of intelligence, or IQ as it came to be termed. Once this test was translated in America there was a heavy demand for it (Hanson, 1994). Hanson argues this demand was due to the dominant belief that science must be quantitative. For example, the educational psychologist E. L. Thorndike said

[k]nowledge of educational products and educational purposes must become quantitative, take the form of measurements. Education is one form of human engineering and will profit by measurements of human nature and achievement as mechanical and electrical engineering have profited by using the foot-pound, calorie, volt and ampere. (as cited in Hanson, p. 209)

Thorndike thought that the use of IQ tests would allow for predictions which could avoid any wastage of resources, as they would allow for education to be distributed according to 'capacity'. Terman, a psychologist mentioned earlier as the kind of godfather of 'giftedness' and thus a contributor to the birth of 'underachievement' as a concept, re-developed the Binet IQ test and named it the Stanford-Binet (Hanson).

Hanson (1994) traces the emergence of standardized testing in schools from the use of IQ tests and the aptitude tests used in the military which followed, as well as dissenting views about tests which co-occurred with this progression; namely, concerns that tests only measure a small portion of one's mental capacity, that by selecting only limited items to put on a test and basing one's learning around it, people are left unprepared for the reality of what they are being tested for. Regardless, standardized testing, derived from the positivist assumptions of the enlightenment era (which sought to understand human differences in a quantitative fashion) continues to dominate today.

As Menchaca (2012) explains, early racist deficit discourses 'set the stage' for the individualized mental testing which was to come. What they term 'race psychology' (the study of presumed hereditarian racial differences in intelligence) was given a new 'scientific' credence by the mental testing which arose during the early 20th century. These findings were then used to justify differential education according to race. However, as their historical tracking of racist deficit discourses from the 1600's revealed, such deficit imaginings of race have long been used to justify whatever social situation most benefits members of the dominant White culture; from slavery to segregation.

The way in which empirical scientific methods have been able to dictate what is 'truth' or objective, and thus arrange society accordingly (for example, justify the use of segregated schooling or compensatory programmes) is a significant consideration when thinking of underachievement. Historically, the scientific

evidence surrounding concepts of IQ and capacity (which birthed 'underachievement') has been used for purposes of racial subjugation. Regardless, of where one sits on their belief of the validity of applying empirical methods to questions for social science; certainly these empirical methods were written by the dominant White culture and thus represent a kind of colonisation of reality. The 'truth', even as it concerns minorities, is written on the dominant culture's terms and using their ideas of best practices for generating social knowledge.

Mead (1996) describes the colonising process in New Zealand as one which "has been and continues to be a struggle over consciousness, ideology, thought, language, memory and also over ways of knowing, of feeling, creating and imagining what counts as reality" (p. 73). Mead's vision of colonisation in New Zealand then, is a psychological one. They argue that because Pākehā values dominate, while Māori ways of being and knowing are subjugated, and because negative representations of Māori dominate schooling, the media, and policies, a sort of 'self-hatred' occurs for Māori. Māori are forced, in other words, to live out the 'imperial dream' (of progress accorded by an ever progressing empirical science), but the imperial dream is one in which Māori ways of being and knowing have historically been given no place in.

Recall, of course, the early pressures of disciplines such as psychology to take up the popular methods of empirical sciences in order to compete for funding and prominence in research universities in the US. While such methods gave psychology advantage historically, whether they are the best way to know social phenomena is not secured. Māori ways of knowing (as well as many other cultures ways of knowing) are excluded from empirical, positivist or post-positivist scientific methods. But the idea that social sciences can be conducted in such a manner has long been resisted from within academia too. In other words, it is not just the presence of other ways of knowing which throw these methods into contention (and

reveal their exclusionary and contingent nature), but their validity has received much critique from within psychology and psychiatry too.

For example, the anti-psychiatry movement, which started as early as the 1960's, challenged the use of natural-science methods in the study of social phenomena. To borrow one possible argument regarding the unsuitability of these methods to the study of people from David Cooper (1967), we might consider the following position on natural scientific approaches being applied to people:

[c]ertainly the field of human actions is readily seen in probabilistic terms but what cannot be left out of the question is the possibility of the subject's realizing this probabilistic structuring of the field in which he is situated, and, through this realization, destructuring the field and acting 'improbably'. (p. 19)

Put differently; when one attempts to predict a person's behaviour, they are dealing with an object of prediction which can choose to act improbably. I would add here that such approaches also attempt to predict a persons behaviour who exists in a social context, and that social context can determine their behaviour in varying, unpredictable and changing ways.

Cooper notes that natural science approaches assume an object can be known from an exterior position of observer. But making 'statements of observed fact' (Cooper, p. 18) and then predictions or hypotheses based on people is not so simple. People have the possibility for 'reflective awareness' (Cooper, p. 19), they are not "passive with respect to the observer" (Cooper, p. 20) and they cannot be understood as a totalized kind of object (something complete, able to be understood as one whole, rather than something 'perpetually moving' through a life cycle involving 'progressive synthetic self-definition').

Analytical rationality involves the assumption of a perspective of complete exteriority...I sum you up, that is I grasp you conceptually as a totality, and that is all there is to it. But if simultaneously with my summing-up of you, you sum me up, I have to include your summing-up of me in my summing-up of you...What goes on in the reciprocal relation of a two-person transaction is as follows: I totalize you but you, in your reciprocal totalization of me, include my totalization of you, so that my totalization of you involves a totalization of your totalization of me, and so on. (Cooper, 1967, p. 20-21)

What occurs when two people attempt to grasp each other in their totality, according to the analytical rationality of natural science methods, is a much more complex situation than when one attempts to grasp as a whole, from an exterior position, something which is not self-reflexive, responsive, able to engage with the process of being engaged with. In other words, the logic of analytical rationality requires people to be total and unresponsive objects; ahistorical, repetitious, static and passive.

The unsuitability of the internal logics of natural science based methods to the study of humans is just one possible line of attack against it. We might also consider that the act of humans studying humans is an inherently political act. A scientist may be able to adopt a neutral, objective position when studying the intricacies of physics, although still be constrained by all the internal and external forces which act on discourse which I outlined in the theoretical background; i.e. pre-existing theories/knowledge, intertextuality, truth regimes, economical imperatives, university and funding systems and so on. When studying the underachievement of minority students, however, these constraints produce much more significant powered effects. For example, minority students must then be 'known' based on truth regimes they had no say in and theories and tools historically used for their subjugation.

Throughout this thesis I have demonstrated the failure of mainstream psychological approaches to achieve the kind of claims of objectivity which secures their status as truth, or as a better kind of knowledge, while other approaches (i.e. anti-psychiatry, Kaupapa Māori research) are relegated to the margins. What an examination of underachievement discourses relating to minority students reveals, is the political effects that the dominance of these research approaches achieves. The construction of the 'reality' of minority underachievement is written in the terms of the group who engineered it and in a way which continues to serve the dominant culture. This violence is now made invisible, it no longer needs to be as explicit as comparative ethnology or the racist rhetoric which preceded it, because it can be placed in neutral scientific terms enabled by the study of IQ, capacity and standardized testing.

The 'gap-gazing fetish'. In New Zealand, much like the US and UK underachievement tends to be conceptualized not as something which simply affects minority students in their own right, but as a 'gap' between minority students and their majority white counterparts (Tomlin, Wright and Mocombe, 2014). For example, Bishop, Berryman, Cavanagh and Teddy (2009) describe the 'gap' between Māori and Pākehā educational achievement as being one of the major challenges facing education in New Zealand. Marie, Fergusson, Boden (2008) state that "one of the most well-established features of New Zealand's education system is the enduring disparity in educational achievement between Māori and non-Māori" (p.183) and in 1999 the New Zealand Labour Party sought to address this issue with a specialized committee and policy called 'Closing The Gaps'.

Speaking of differences in achievement outputs between groups as 'gaps' has become so common that Guiterrez (2008) has described researchers as having a 'gap-gazing fetish' (p. 357). Guiterrez discusses a number of problems with the use of research which focuses on achievement gaps and in doing so points to a number of potentially significant political effects this kind of focus may produce.

Firstly and significantly, Guiterrez (2008) notes that gap research tends to reduce identity to simple variables such as ethnicity. This is certainly the case in New Zealand; for example, Rata (2011) found that the majority of underachieving Māori pupils are at low decile schools. However, when underachievement is linked simplistically to ethnicity, it comes to seem as though the ethnicity itself is related to deficit, rather than a particular group being more likely to face economic or social barriers. Robertson and Dale (2002) argue on this matter that

the Education Review Office has concerned itself with the poor performance of the indigenous Māori population, by focusing only on race and not social class it has diverted attention away from the structural cause of precariousness (allocation and distribution) and the limitations in the neo-liberal paradigm in overcoming these problems, toward prejudices within the profession and community. (p. 477)

The way groups are framed, defined and compared in this research thus has flow on effects for how those groups come to be treated. If the problem is framed as 'Māori are underachieving' then solutions become targeted at raising the achievement of Māori (i.e. remedial programmes), rather than addressing the barriers Māori may face, both economically and in a fundamentally Pākehā school system. Guiterrez (2008) argues that gap discourses tend to promote an ideal solution as being a 'technical' one, for example, a change in teaching styles, rather than a need for systemic change.

Guiterrez (2008) also points out that focusing on achievement gaps between ethnicities tends to perpetuate a myth of there being more between group variation than within group variation. This runs contrary to PISA (2000) findings that achievement levels vary significantly within Māori as a group, with the largest

difference relating to “the availability of educational resources in the home” (p.21). It also violates and ignores the tribal structure of Māori culture. Tiakiwai (2001) argues

Government bodies are not interested in examining the intricate differences between tribal groups and then insist on viewing Māori as a homogenous group, despite their acknowledging that Māori social structure is tribal in nature. In short, Government policy that continues to deny Māori tribal identities effectively reinforces the dominant viewpoint of mainstream society and asserts that identity can only be defined and practiced in certain ways. (p. 312)

Although there is an intense focus on ethnicity gaps which see minority cultures at the bottom, Guiterrez (2008) points out that an achievement gap between White and Asian-Americans is not given nearly as much attention, despite the fact white Americans are comparatively underachieving in this case. There is no ‘crisis’ of White achievement in comparison to Asian-American students. However, as noted above, the higher achievement of Asian-Americans is often framed in negative terms (as being due to overwork). Recall the above argument by Matus and Infante (2011) that “[b]y insisting on differences among groups and not problematizing the ideal of normalcy against which these differences are constructed, the notion of normal is naturalised” (p. 293). Guiterrez adds further to this argument that the achievement gap lens places groups in opposition to one another and implies that minority students are not worthy of research which focuses only on them (rather than how they compare to Pākehā) and thus engrains whiteness as the norm.

Is simply being equal with white students (or ‘closing the gaps’) the best possible aim for minority students? Guiterrez (2008) argues that it is programmes which aim for excellence (rather than parity with white students) which have produced the most significant differences in achievement outcomes for minority

groups. Indeed we might think back to the success of the supplementary schooling example for African Caribbean pupils outlined above, where students were also taught to aim for excellence/high standards of work. The very idea that the solution to achievement differences is for minority students to produce a parity in scores with White students certainly has the implicit assumption that the scores of white students are the most desirable norm here. But as Durie (2001) points out, success for Māori can be perceived quite differently to how Pākehā imagine success; requiring Māori to simply achieve on par with Pākehā is thus a way of continuing to force their assimilation to Pākehā norms.

Whether simply closing this ‘gap’ and aligning minority students achievement outputs with white students achievement outputs is the best way forward or not, achievement-gap lens research does not seem poised to achieve even this. Guiterrez (2008) states that achievement gap research tends to provide only a limited and static picture of school inequities. They state that studies conducted through this lens

[r]ely primarily upon one-time responses from teachers and students, they can capture neither the history nor the context of learning that has produced such outcomes. And, whereas researchers can highlight the variables most closely associated with the gap (e.g., income, family background), those variables are often not reasonable levers for change. (p. 358)

She argues that identifying actual causes for such gaps is extraordinarily difficult, as “causality is based upon estimates and inferences that are often limited by omitted variables” (p. 358). So although achievement gap research indicated both a narrowing and widening of achievement gaps in mathematics in the US, understanding these movements did not actually provide a way forward for addressing this gap.

Indeed the 'gap' between Māori and Pākehā has been recognised in research since the 1960's, but the Hunn report and gap research projects which followed have not provided any kind of complete solution to this issue. Of course, I raise this point not to suggest that any one research approach should or could provide a total solution (and certainly not to suggest that solution should be framed and produced by Pākehā, rather than Māori), but to point out that the current dominant ways of conceiving of and researching this problem have not earned their right to dominance through being the most effective or unproblematic methods; as evidenced by over 50 years of failure.

Finally, Guiterrez (2008) notes that achievement gap research hinges on standardized achievement test scores, but argues that such tests constitute only a narrow definition of 'learning and equity'. For example, they say nothing for broader issues such as "mathematics for use beyond school, how students are being prepared for college, and mathematics as a tool to analyse society and to solve problems of importance in one's life" (p. 360). We might think back here to Lave's (1988) findings that some people used mathematical principles effectively in their everyday life and work, despite scoring badly on standardized mathematics tests.

Cultural gaps. Somewhat left out of the popular discourse on achievement output gaps between white and minority students, is the cultural gaps many minority students are expected to bridge in order to succeed and enjoy mainstream education. For example, Mahuika (2011) writes:

I arrived at university in an era when closing the gaps meant I had the most distance to travel. This expanse was not measured in kilometres or miles but in 'cultural capital', signposted in the particularly disparaging landscape of deficit theorizing, where Māori underachievement marked the low-lying outer reaches on a steep incline toward becoming upwardly mobile, the innovative kiwi, or New Zealand citizen. (p.15)

In her Foucaultian analysis of student subjectivities in New Zealand tertiary education Grant (1997) has argued that education's fundamental concern is "with the formation of human subjects" (p.101). The problem then becomes, she writes, that the norm around which student subjecthood is constructed is cultural, and thus for some students is "almost impossible" (p. 102) to attain. Some may of course, as Fordham and Ogbu (1986) described, take on the burden of 'acting white', or in line with the normative cultural expectations of educational institutions. However, as Gale (2000) argues, the fairness of meritocratic education systems is illusory because not everyone is socialized with the language, culture and values which dominate within it.

In contrast to liberal narratives which depict education as a pathway to social equality, Smith (1994) notes this pathway is experienced differently by Māori, for whom (as explored) the education system was historically used to colonize and assimilate. They state that Māori have often used education in order to fight against Pākehā domination (such as through land courts), while remaining aware that colonial education had functioned to nearly strip Māori of their culture and language. Tiakiwai (2001) notes that Māori experience of education is one which often involves "deculturation, identity loss and indifference" (p. 310). While Dewes (1975) asks

[w]hat can we Māori aspire to if we are not rooted in the land, if there is no language and literary education to speak for our souls, if our creative imaginations and leadership energies are weakened by fear of loss of jobs and promotional prospects? Are we not cultural refugees in our own country? (as cited in Smith, 1994)

Because the knowledge which comes to inform and fill current curriculums and tests is now from the domain of educational science it can be framed as a kind of neutral component of schooling. But Smith (1994) argues that “[s]chools contain a hidden curriculum which teaches particular social and economic norms” (p. 146). Likewise, Apple (1990) points out that schools are “tacitly organised to differentially distribute specific kinds of knowledge” (as cited in Smith, 1994, p. 146)

The decision of what knowledge is to be included in a curriculum, what knowledge students ought to be tested on, ultimately falls on various state apparatuses. Education systems may have some autonomy, but ultimately they still exist within a social context which has various competing interests, pressures and struggles (Smith, 1994). Indeed Smith notes that because overarching values of schooling relate to effectiveness and efficiency, implementing the sort of policies which might achieve more inclusion of Māori ways of knowing tend to be ranked as low priority.

Gutierrez (2008) explains that achievement gap studies for mathematical topics remain focused on only two possible notions of equity - that of access and achievement. Equity is presumed if all students have access to the necessary educational resources to achieve and if they produce equal scores on standardized tests and participation rates. What is left out of this picture, she argues, are notions of identity and power; one’s ability to maintain their cultural, familial and linguistic connections and their ability to achieve change or be heard within education.

Many have argued that culture is not a relevant or important consideration when it comes to educational teaching and assessment programmes, but Mahuika and Bishop (2010) challenge this perspective. They suggest instead that Pākehā culture is so ingrained as the norm that Pākehā fail to understand how culturally laden the educational system is. They note that many Māori students are not taught or assessed in a way which is culturally relevant to them at all. However, they cite Pākehā beliefs that different modes of teaching and assessment for Māori constitute

‘unfair’ or ‘special treatment’ (largely due to a failure to recognise the Pākehā cultural nature of mainstream education) as a barrier to improving assessment procedures for Māori.

Mahuika and Bishop (2010) conclude ultimately that assessment has become an integral part of modern education and is used to inform a variety of important decisions; pass/fail labels, what a teacher needs to do to assist different students, whether a student ought to attain a given credential, and thus their future educational and career prospects. They state that assessment is

more than simply taking tests or collecting and analysing data, but implies a necessary judgement in what knowledge is valued through decisions about what is assessed and how this assessment is carried out. Such judgements cannot help but have significant implications in culturally diverse nations such as New Zealand. (p.1)

However, they note that the research surrounding the assessment of Māori students is limited so far.

‘Closing the gaps’. What becomes the focus of research, how underachievement is defined and responded to is not simplistically determined by an ever improving progression of knowledge in social science. Just as the progression of research into gifted underachievers expanded and deflated in line with political and public sentiments, so to has Māori underachievement policy. Tiakiwai (2001) argues that

[e]ducation is a pawn for both minority and dominant groups, based on the particular ideologies and philosophies held by those in positions of power...[a]t times it could be argued that the education of Māori has less to

do with actual advancement and more to do with political point scoring. (p. 19).

The events surrounding Labour's Closing the Gaps policy and the foreshore and seabed debate are a prime example of this.

A year after Te Puni Kōkiri's 1998 report the then Labour government established a policy and cabinet committee called 'Closing the Gaps', which specifically sought to amend discrepancies between Pākehā and Māori on various measures. Labour's commitment to 'close the gaps', along with recommendations which followed the 1991 Ka Awatea report, were met with claims of race-based preferential treatment toward Māori. Former Prime Minister Jenny Shipley argued that attempting to boost Māori success, and not Pākehā success, was divisive (Walker, 2004) and stated

Māori want a chance. They don't want to be treated as exceptional or locked into this business of deprivation. A lot of Māori are saying, 'Give us a break. We are actually breaking into universities in huge numbers yet all you talk about is disadvantage'. (as cited in Young, 2001)

Walker (2004) describes the time period following Labour's Closing the Gaps policy as being dominated by media portrayals of Māori receiving excessive 'hand-outs' from Government. In the background of this policy debate a number of Treaty of Waitangi settlements were taking place, involving the transferral of land back into Māori ownership as a means of redressing historical injustice. Of particular national significance during this time was a debate over Māori's right to areas of foreshore and seabed. This debate followed an incident where Māori were effectively blocked out of a Marlborough District Council board; a board which had authority over a marine area Māori felt was being over farmed (Walker, 2004).

The National party ran a 'Beaches for All' campaign in response to this foreshore and seabed debate, proposing beaches should be available to all New Zealanders. Former National leader Don Brash describes the foreshore/seabed debate as creating a 'grievance industry' and protests took place in Nelson in 2003 with signs reading 'One Law for All', 'Whites Have Rights Too' and 'When Will We Stop Giving' (Walker, 2004). Walker describes the New Zealand population during this time as having reached a "state of fatigue over what was characterised in the media as endless 'hand-outs' to Māori" (p.321).

Walker (2004) argued that the National Party used the foreshore/seabed issue as a political platform to gain votes. He argues National effectively recast Māori's desire to have a greater stake in marine operations as a desire to increasingly privatise New Zealand beaches and cut off public access to them. Seemingly in response to this political and public pressure, the Labour Party (who were traditionally aligned with the Māori vote) turned their back on a history of treaty settlement policies and moved to legislate crown ownership of the foreshore and seabed.

Capitalising on the momentum of National's successful 'Beaches for All' campaign, the 2004 leader of the National party, Don Brash, gave an infamous speech to an Orewa Rotary Club. He argued that special allowances or privileges granted to Māori were an act of racial separatism and that such separatism cannot be justified under democracy. Although Brash's speech was met by significant media criticism and accusations he had misunderstood history, the National Party jumped 17% in polls after his speech (Walker, 2004).

It was in this environment of warring perceptions of Māori receiving 'hand outs' v. Labours depiction of Māori as disadvantaged that the Closing the Gaps policy had to contend with. Eventually Labour caved on their initial positioning of the Closing the Gaps policy, and quickly reframed it as a generalist policy to reduce disadvantage for all ethnicities. But this is not a simple case of a humanistic Labour

policy being thwarted by a more central-right party's ideology; Mahuika (2011) points out that while Labour's Close the Gaps policy (in its original form) succeeded in drawing attention to "a group whose current situation required special attention and care" (p.15), it failed in that it separated out Māori in negative/ deficit terms.

Bishop, Berryman, Cavanagh and Teddy (2009) contend that there have been next to no changes in Māori underachievement figures since the Hunn Report because policy responses continue to be constructed within a context of 'epistemological racism'. In other words; policy reflects and responds to a dominant cultural order and this remains the case even when that policy is 'evidence-based'. Smith (1994) notes that although the 'detrimental impact' of educational policies designed by successive Governments to target Māori underachievement have begun to receive recognition, the "control of resources, administration, curriculum and assessment areas are still firmly in the hands of Government" (p. 150).

When we look at underachievement locally like this we can see even more conditions of possibility which shape the way underachievement will be conceived of, responded to and shape social realities. In New Zealand, underachievement is used as a pawn between warring political parties; its definition and policy response the result of a kind of tug of war. Social attitude plays into it too, as Mahuika and Bishop (2010) point out, the ingrained nature of Pākehā culture as the norm means many misinterpret Māori initiatives in education as 'special treatment'.

No doubt the presumed neutrality of educational curriculums and testing plays into this too; education is seen as a neutral pathway to social mobility (informed by scientific practice) and contains the assumptions that fairness is 'everyone being treated the same or subject to the same conditions'. As Glickman (2000, in Sleeter, 2005) notes, standardized education practices have institutionalized the notion of there being a singular kind of educated person. The terms by which one is educated, intelligent, tested, what comes to count as knowledge, and one's subsequent right to 'social mobility', are all defined on

dominant cultural terms and thus as Smith (2004) says: the struggle in education for Māori continues.

Returning to Where it all Started: Psychological and Sociological Definitions of Underachievement

Recall that in the opening section of this analysis I asserted that complete loyalists to the psychological definition of underachievement (where potential = IQ) were confined to the narrow conclusion (if they accept findings under the sociological definition of underachievement which shows some groups achieve higher than others) that there is a racial hierarchy in IQ. There is seemingly no way to explain differences in achievement across ethnicity groups (when adhering to the psychological definition), unless one asserts that some ethnic minority groups simply have less potential (IQ), and thus will not achieve as highly. Here the narrow and reductivist definition of underachievement has backed psychology into a corner.

The inevitable racist conclusions of defining potential as 'IQ' and the 'discovery' of minority underachievement underachievement was not an immediate issue in the 1960's, of course. Assumptions that minority ethnic groups were of lower IQ still existed as a sort of permissible practice during this time (i.e. the 1964 Lovegrove study on Māori underachievement under the psychological definition). Presently, however, hereditarian views of intelligence and racial hierarchy are patently not accepted or allowed to dominate within academia, psychology or society more generally.

For example, more recent proponents of the hereditarian view of intelligence and racial intelligence hierarchy, such as Arthur Jensen, have faced enormous opposition to their work. In Jensen's case this occurred both academically, with accusations his work was pseudoscience, reductive and too reliant on simplistic notions of intelligence as a single ordinal measure (see: Fraser, 2008 and Graves &

Johnson, 1995), and politically and publically; Jensen was protested, called a Fuhrer and attempts were made to block his membership to an American Association for the Advancement of Science (Woo, 2012).

How then are we to proceed with the psychological definition of underachievement and its situating of IQ as the best possible definition of potential? If potential is IQ, then differences between groups revealed under the sociological definition suggest that differences in minority ethnic achievement are due to differences in IQ. Beyond the significantly racist history such tests are derived from and their culturally biased nature, this is no longer a socially acceptable statement. It is not one that makes a lot of sense either, given the abundance of research on other factors which affects students' achievement.

Must psychology go back to the drawing board then? Does the equation of potential = achievement output need to be rewritten in terms of all the possible influences on potential, or is the whole equation irrelevant now? Thorndike's (1963) call for the use of something like an IQ test to help ensure there is no educational wastage no longer seems compatible with dominant ideas that everyone has the right to education and everyone has the potential to succeed within it (given they grasp the opportunities available to them). As noted, however, perhaps thanks in large part to this definition of underachievement and psychological knowledge more generally, the notion of 'potential' (as vague as it is) and a universal kind of intelligence, are now entrenched in educational discourse.

Indeed the idea of a singular, universal kind of intelligence is one of the many assumptions the testing movement was birthed from. Current educational structures, where achievement is treated as results on a presumed universal standardized test, also hinge on this notion of a singular intelligence. If all citizens do not possess a kind of universal and singular notion of intelligence which made them capable of achieving on the also presumed universal educational tests, then

how else would you justify holding so many people accountable to uniform achievement standards in schools?

Certainly the construction of a kind of singular definition of 'intelligence' and imagining this as the primary determinant of success in school (where the process of schooling, curriculums and testing are presumed culturally neutral) was (and continues to be) of high social value and convenience. We saw this both in the conditions of possibility section where I explored the utility of psychometrics and individualized psychology to educational administrators and later on to neoliberal and school effectiveness reforms.

But we might also think of this more broadly in that the education system is currently serving White middle-class people; perhaps if there was a crisis of White middle-class people there might be more suggestion for broader reform (we saw this to some extent with the boys' underachievement crisis). At present, however, we might argue that this system has been functioning for many of the stakeholders in education (i.e. those concerned with the economy and producing potential employees) and the dominant culture have been achieving and are the established norm within education. Notions of universalized testing and intelligence are thus technologies of power which help to construct and maintain White dominance and accordingly we can see why dominant educational discourse positions the blame for minority ethnic underachievement elsewhere.

To understand the notion of a singular kind of intelligence as a socially located production, we need only imagine different social conditions. For example, imagine if human difference was not treated as something to be fixed, but rather accommodated within educational structures; if education allowed for differences in belief, culture, learning style, learning pace, testing practices, curriculum and so on. I am not suggesting this is the future for education, so much as pointing out that in such a structure, identifying some 'universal, cognitive intelligence' and mapping exactly what that entails and how to test it would be irrelevant because intelligence

could be accepted as a multifaceted concept; something with multiple meanings and variations. In this situation students could learn, test and know different things and in different ways; they could be 'street smart', creatively smart or a series of variations of 'intelligence' not yet discovered. Further, it would perhaps be more obvious that the creation of an educational system which serves everyone would not be a uniform one, designed by one culture, which holds all others accountable to it.

Indeed, returning to our current conditions, is it fair to hold multiple groups accountable to a single achievement standard? Particularly without ever testing to see whether this single achievement standard would in fact be relevant and possible for all of them? As noted above, significant research into how Māori experience educational assessment has not been conducted (Mahuika & Bishop, 2010). The ability of diverse cultures and those not from the White middle-class bracket to achieve equitably (with White middle-class students) in education has effectively been tested and there has been a gap in this attainment for 50 years. The idea this uniform achievement should be mandatory is only fair when you adopt, once again, the dominant cultures perception of fairness; treating everyone the same.

To treat everyone the same is depicted as a fair concept in rhetorics of equality of opportunity, but that 'same' condition everyone is held to, was developed in line with a history of dominant cultural interests. As outlined above, the history of testing, of studying individual differences, of defining achievement, of setting its standards, was not a process of collaboration between cultural groups; it was a matter of 'scientific advancement' with the fundamental assumption that 'scientific advancement' was not based on dominant cultural values and would serve all citizens equally. When we look at the history of underachievement, however, it is clear this is not the case; educational and psychological science have failed to serve minority ethnic students in the same way – minority ethnic students continue to underachieve. The definition of this issue and the research into it has clearly served dominant cultural interests, regardless of its having taken place within supposedly

objective psychological and educational research. Because the 'same' condition which everyone is expected to adhere to was not set out through a process of collaboration or negotiation it unfairly pathologises, excludes, marginalizes and controls 'difference'.

Returning to the opening quote in this thesis from an article featured by the African American Intellectual History Society on why the achievement gap is a racist idea;

[W]hat if, all along, our well-meaning efforts at closing the achievement gap have been opening the door to racist ideas? What if different environments actually cause different kinds of achievement rather than different levels of achievement? What if the intellect of a poor, low testing Black child in a poor Black school is different—and not inferior—to the intellect of a rich, high-testing White child in a rich White school? What if the way we measure intelligence shows not only our racism but our elitism? (Kendi, 2016)

The normalizing structure of disciplinarity is able to construct differences in levels of achievement as meaning the underachiever is unacceptable rather than the system of testing; it is able to make the question 'how do we change African-American childrens' achievement levels?' not 'ought all children be held to the same values?'. We thus might reformulate the problem of the achievement gap as one which is defined on the dominant White cultures terms, knowledge, values and concepts and as one which expects others to assimilate to its presumed neutral and objective levels of achievement.

Discussion

A lot of the challenges and presentations of subjugated or alternative perspectives above have been left fairly open ended. My imperative here is to present a broad array of angles from which mainstream underachievement discourses can be challenged, questioned and understood, as well as present challenges to the various assumptions, values and practices which underlie their production. However, I am not presenting each of these challenges, or the alternative critical perspectives often embedded within them, as perfect or complete truths. Rather my intention, in line with the methodological imperatives stated earlier, is to illustrate the fragility of current power-knowledge around this topic, the multiple angles from which one can critique, subvert and challenge the authority of that power-knowledge, and the way in which its authority or power is contingent upon vast and complex layers of conditions of possibility.

I elected to traverse across a number of localities in my analysis because underachievement exists in very similar fashions across the US, UK, New Zealand, and no doubt other industrialized, globalized countries too. While we might trace its emergence to events in the US (although this also involved players elsewhere, such as the French psychologist Binet), the construct of underachievement, and other related practices of education (such as testing), have clearly had utility across a number of Western industrialized capitalist countries. However, my traversing and jumping around may mean that I am unaware of local particulars which at some point altered the more general themes which I link to modern education. For example, while New Zealand, the US and UK are all home to underachievement discourses which situate it as a 'gap' between minorities, we saw that the way New Zealand gap discourses were talked about from 1999 and into the 2000's occurred in line with local conditions of possibility (such as modes of thinking about state provision for Māori and the foreshore and seabed debate).

My discussion will focus on broader themes I have observed across these localities, such as patterns of conceiving of tests as universal, of defining

achievement as an output on a test, the assumption education can function as an engine for the economy, producing employers and so on. However, I acknowledge that there will always be more layers of detail possible about how each condition has shaped the way underachievement is talked about at various times and in various places. In this sense the genealogical task of tracking these conditions of possibility is likely never complete; there are always a number of possible branches off each condition of possibility which might be considered, as well as examining the ways these conditions have occurred specifically across different times and places. My hope is that my inclusion of more detailed historical work in New Zealand helped to demonstrate some such local particulars, but ultimately the aim of my analysis was not to provide a perfect historical account of underachievement in any one location, so much as disrupt the dominant assumptions in knowledge on it which traverse across the Western industrialized countries explored.

What I do make some broader conclusions about below, is what the above analysis says about psychological knowledge on underachievement and the value of such an analysis in indicating the socially located nature of such knowledge. Primarily, I work to bring together various strands from the analysis to indicate the convenience of dominant knowledges on underachievement to social fields, and their productive power in shaping, ordering and arranging those fields. I then question where psychology might go next in its definition of underachievement, in light of the arguments above.

Tying it all together. Throughout my analysis I have focused on many concepts which might seem somewhat disparate from underachievement itself. However, underachievement is intricately linked to many other concepts, assumptions and values. If we were to take away or alter any of these, the way underachievement is conceived of and used to structure possibilities could change too. I have explored some such possibilities above, where I suggested the concept of potential (particularly as relating to IQ) might be imagined differently if education

had unfolded in a way which welcomes and accommodates human difference, rather than assimilating it into a very homogenous schooling process. I have also explored a number of related political and historical movements which might not affect the more official definitions of underachievement, but certainly shape the significance of this construct, the way it is talked about, and the consequences it is able to enact (i.e. whether the underachievement will be deemed a crisis, and if so what kind; what policies or solutions might follow and where the blame for that underachievement will be situated).

One of the primary aims for this analysis has been to link the assumptions, ideas and values underpinning underachievement to the historical conditions they emerged in, or continue to be relevant within. The current conceptualization of underachievement is tied to the idea that achievement (or lack of) is a kind of output which can be measured by certain (typically standardized) tests. Within this conceptualization there are many interrelated assumptions, concepts and systems. These range from theories about how people learn (which makes sense of the use of testing), systems of educational and economic management (which make a focus on achievement as output paramount), to societal and economic values relating to education (i.e. that education should be available to all, that education should capitalize on students' potential, produce docile workers and function as an engine for the economy).

Within each of these facets is a history of further assumptions and values. For example, we might consider the focus on achievement as an output on a test. The mainstream education and psychological idea that this is how achievement ought to be defined, typically has assumptions regarding universality (i.e. 'intelligence' refers to a singular, universal concept which might occur at different levels across populations but can be measured in the same manner for everyone), assumptions about where cut off points for standardization ought to be placed and assumptions about the neutrality of the testing process itself. There is an

assumption that learning is best measured as an output rather than a process, that the suitable test questions and standards can be designed to measure this output effectively for everyone and that the process by which this output is reached is somewhat irrelevant (i.e. some students may struggle with institutional racism and other barriers within their school, but if their achievement output is the same as their peers then this is presumed to indicate equality).

Each of these layers upon layers of assumptions, as we have seen, is not necessarily always borne of some kind of perfect progression of social science knowledge. Rather, many of them are shaped by the conditions of possibility which give rise to and structure them. We might consider some of the conditions of possibility explored in the US, UK and New Zealand; for example, the focus on achievement as an output suits surrounding practices of scientific management and concerns with social efficiency. It makes sense within the individualized field of testing which emerged in the place of an opening market with educational administrators and a view that psychology ought to take an empirical, quantitative route. It continues to fit with practices and ideologies of meritocracy and credentialism; the idea that anyone can access social mobility if they achieve a given set of credentials (or outputs on a test). It fits with dominating ideas of equality of opportunity which view equality as treating everyone the same (i.e. everyone must meet x standard on a test).

This all then fits perfectly within the now dominant neoliberalization of education; where all students can be imagined as universal sort of students, each responsible for the attainment of x scores on a test and the social mobility presumed to follow. It fits continuing expectations that schooling ought to act as an engine for the economy, and from that the use of credentialism as a means of employers sorting through possible employees. Which of course fits with the requirements of administrators to then arrange schooling so that it efficiently processes such

students towards the economy; producing an effective sorting system for the economy is no doubt made easier when everyone is held to one standard.

When underachievement and the surrounding concepts and assumptions are tracked and researched in this way we can see that the knowledge which emerges on this construct is in fitting with (and no doubt helping to produce) surrounding conditions. We thus cannot view such an object, or the changing knowledge on it, as ever improving social science knowledge produced in an abstract theoretical research vacuum, but rather we must understand that the knowledge on this topic is generated in line with social demand, pressures and values. Alternative knowledge is always emerging about underachievement too, but that which has dominated and becomes power-knowledge (in the sense it shapes surrounding structures, gives direction to social action, orders things in time and place) is that which is most socially convenient.

The dismissal of alternative models of education, achievement, and even knowledge more generally, and the way in which these are marginalized and dismissed as being pseudo-scientific occurs not simplistically because the dominant model of achievement is a perfect, objective enterprise (indeed the above analysis demonstrates this is certainly not the case), but rather because such knowledge emerges within disciplinary power structures which renders some knowledge powerful through truth regimes, while marginalizing others. It is projects such as this one which demonstrate how and why such marginalization might be considered a violence; knowledge structures things, it gives awards, it punishes; it enables social mobility, or it limits it; it distributes students to gifted programmes, or to remedial or special education; it shapes the way 11 years of schooling or more will pan out for children, what kind of curriculum this will involve, what kind of behaviour will be expected, what kind of styles of learning will be allowed, how teachers will interact with their students; it determines how children, young and ready to learn about the world, will come to see it, be taught to interact with it, be taught to view themselves

within it; knowledge can do all of this, and thus the power which structures what counts as knowledge is of extremely important consideration.

Underachievement, in sum, is a concept which could have pointed to a 'crisis' in a variety of directions, could have situated blame or pathology in a number of locations and could have led to an expansive number of possible solutions. Perhaps the most obvious possible location for blame, after examining all the above, is the testing and schooling system itself. Why do tests, at the heart of underachievement, continue to be used despite such significant criticism levied at them? If social groups are not reaching achievement after 50 years of reform, then perhaps the problem is the means by which they are expected to reach that achievement; perhaps the problem is the assumption of the universality of testing and schooling. Instead, what we can take from where the crisis and blame were located, from what solutions have been suggested, is that our theorisations about underachievement (just like the definition itself) are born of their surroundings and their history; they are constrained and constructed by the conditions they were produced within.

But more than this; the way underachievement was constructed (and the concepts/practices underlying it) serves dominant ideologies, values, pressures (for example, neoliberalism, individualism, credentialism); it has filled needs within the marketplace (such as the need for testing which helps sort and categorise pupils), enabled simplistic policy making (i.e. aspiration policies), justified political shifts (i.e. from assimilation to integration, or the move of Māori pupils to more direct state control and surveillance), justified the use of remediation programmes to assimilate pupils to dominant educational norms (such as in the case of Māori students), it has served as a political tool for warring parties (the National and Labour party debate over 'Closing the Gaps'), it has justified the over-representation of African American students in special education and so on. We might think back to Foucault's suggestion that what makes modern disciplinary power hold strong is its ability to

produce things; to give structure to chaos; to justify punishment and reward; to arrange society, to keep it ordered and 'just', to create A+ students and to punish those who do not adhere to its sanctions of normality.

Underachievement is a construct which came to be shaped around norms of efficiency, norms of what makes good knowledge, norms of testing practices and norms of educational behaviour. The psychological knowledge produced about this concept gave scientific credence to these norms, to the hierarchical classification of individuals around norms of intelligence, to the testing of individuals; it helped construct those who fail to adhere to these norms as pathological. What a history of underachievement has shown is that much in line with Foucault's imaginings of disciplinary power, psychology has studied this issue in line with conditions of possibility and then functioned as a technology of power by framing its knowledge objects in terms of objectivity and expertise. This power-knowledge is then able to categorise, define, order and shape the lives of those it claims to know, while all the while appearing invisible in terms of its history, its values, its cultural nature and the systems, groups and ideologies it serves. Power-knowledge about underachievement is thus extraordinarily productive, achieving all of the above actions in terms of structuring of the social field, while all the while appearing a neutral, objective driver of such 'progress'.

The study of underachievement has certainly enabled an understanding of how the products of this disciplinary-knowledge have lives well beyond the constraints of their disciplines, and can be taken up in a variety of ways. For example, in all the instances listed above where underachievement and its related concepts were able to structure fields of action and induce social and political effects in the real. The products of disciplinary power-knowledge both enter and exact power. When we assume the neutrality of the knowledge we produce, and the conditions are such where knowledge which appears objective, impartial and adheres to post-positivist empirical regimes will be counted as truth, then as

producers of knowledge in psychology we must consider that this knowledge may come to structure social reality in ways we cannot predict. It is unlikely that any psychologists could have foreseen exactly the ways in which their knowledge would contribute to processes of normalization, that they could have predicted the scale of impact psychometrics, individualized psychology, IQ tests and so on would achieve.

Going forward, psychology is now in somewhat of a predicament.

Underachievement has become a run-away concept; what started in the psychological studies of gifted children has come to define, organise, evoke crises, produce policies and a whole number of other effects in the real. But the psychological definition of underachievement is becoming increasingly socially untenable. How is psychology to reconcile its over-reliance on IQ tests as a measure of potential when sociological definitions of underachievement render its conclusions that working class children and minority ethnic pupils must have less potential to achieve? How is it to explain the continuation of such a definition in line with all the mainstream findings that a variety of other factors all intermingle to determine a student's potential in complex ways? And if underachievement is to be redefined as something for which potential is not a universal, singular kind of intelligence (which everyone might be thought to possess), then how do we justify the continued reliance on universal testing which was founded on this idea?

Will potential be redefined in terms of a whole number of influences on one's achievement? And if so will these include only the individualized imaginings of influencing variables by psychology, such as self-efficacy and study behaviour? Or will they include cultural differences which render some curriculums and ways of knowing irrelevant to students? Will they include the social realities of students who face institutional racism both within and beyond schooling? Will the glass ceiling make a feature? Will the impact of testing being historically used as a tool for justifying the subjugating, segregating, assimilating and assumed intellectual inferiority of different ethnic groups be included?

How psychology reconceptualises potential going forward might reshape the face of underachievement research. If practices of reductive individualizing are continued, for example, if potential was explained in terms such as 'aspiration', then it would likely continue to be a usable tool for neoliberal educational initiatives (as we saw in the aspiration discourse section above). If, however, it reconceptualised potential in more dynamic and complex ways, ways which acknowledge the person's subjectivity, their social locatedness, their inability to be reduced to totalizing, cause and effect kind of theory then new conditions of possibility might emerge. It is impossible to say how such new conditions might play out, but what we might safely conclude from 50 years of failed reform regarding minority ethnic underachievement: is that that what we do not need is more of the same.

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