

# From ABCs to ADHD...

## The role of schooling in the construction of 'behaviour disorder' and production of 'disorderly objects'

Linda J. Graham\*

*Queensland University of Technology*

**GRA06089: AARE November 2006, Adelaide**

*Discussion of Attention-Deficit/Hyperactivity Disorder (ADHD) in the media, and thus much popular discourse, typically revolves around the possible causes of disruptive behaviour and the "behaviourally disordered" child. The usual suspects - too much television and video games, food additives, bad parenting, lack of discipline and single mothers - feature prominently as potential contributors to the spiralling rate of ADHD diagnosis in Western industrialised nations, especially the United States and Australia. Conspicuously absent from the field of investigation, however, is the scene of schooling and the influence that the discourses and practices of schooling might bring to bear upon the constitution of "disorderly behaviour" and subsequent recognition of particular children as a particular kind of "disorderly". This paper reviews a sample of the literature surrounding ADHD, in order to question the function of this absence and, ultimately, make an argument for an interrogation of the school as a site for the production of disorderly objects.*

### Introduction

Attention Deficit Hyperactivity Disorder or "ADHD" as it is now commonly known, is a modern phenomenon that has sparked virulent debate in recent years since an exponential increase in the rate of diagnosis has occurred - most noticeably in the United States (Goldman et al., 1998; Sax & Kautz, 2003) and Australia (*Australian Social Trends*, 2000; Davis et al., 2001; Mackey & Kopras, 2001). In popular discourse, the "truth" of ADHD remains relatively uncontested and arguments that question it as 'myth or reality' (Armstrong, 1996; Laurence & McCallum, 1998) appear to have been successfully marginalised (Sava, 2000). As such, the dominant discourses that surround child behaviour now constitute an intellectual truth-game characterised by territorial skirmishes as to *whose* truth should reign (Atkinson & Shute, 1999; Forness & Kavale, 2001). Works that have sought to challenge these truth-claims by pointing to the "constructed-ness" of child behaviour disorder (Conrad, 1975) have been sidelined or even colonised to the point where, in some cases, any argument as to the social construction of ADHD simply works to reaffirm that which it seeks to deny (Calhoun et al., 1997).

Expressed most acutely in popular media (Norris & Lloyd, 2000), dominant discourses that conceptualise the "social construction" of ADHD, do so in reductive ways by pointing to the ills of contemporary society to explain the occurrence of disorderly behaviour:

\* **Linda J. Graham**, Centre for Learning Innovation, Faculty Of Education, Queensland University Of Technology (QUT), Kelvin Grove QLD 4059, AUSTRALIA, Email: l2.graham@qut.edu.au

Why do so many need special help? Sometimes they are children who have missed out very early on, and their behavioural disorders stem from the frustration of never being in the race, especially if they are one of the nearly 30 per cent born out of wedlock whose mothers struggle to be two people. (Shanahan, 2004, p. 4)

In this way, “social construction” comes to be read simplistically as: the disorders of society create disorders in our children. Whether our children really have disorders (Panksepp, 1998), what is and who decides what constitutes a disorder (Crowe, 2000; Wakefield, 1992), and whose interests “disorderedness” serves (Slee, 1994) are arguments that remain, on the whole, isolated to the academy and to increasingly marginalised fields within it.

Media discussion of ADHD, which informs much of popular discourse on the subject (Danforth & Navarro, 2001), revolves mainly around the possible causes of disruptive, disorderly behaviour (Fields, 2000; Norris & Lloyd, 2000). The usual suspects - too much television and video games (Walker, 2004), food additives (Dengate, 1994), aberrant maternal-child interactions (DuPaul et al., 2001), inconsistent parenting, lack of discipline, single mothers (Armstrong, 1996; Shanahan, 2004), and temperamental disposition (Powell & Inglis-Powell, 1999) – are trotted out periodically, amid panicked interviews with the “experts” of child behaviour; paediatricians, psychologists and psychiatrists (Dalley, 2000; Gaviria, 2001). It appears that, other than to confirm stories about their wildly out-of-control child, parents are rarely consulted - perhaps because parents are often considered a large part of the problem (Fynes-Clinton, 2005; Johnston, 1996; Neophytou, 2004; Smelter et al., 1996). An attendant argument, and one that receives undue coverage in the media and professional literature, is that parents are complicit in the increasing rate of diagnosis because a medical label is said to relieve them of responsibility or blame for their child’s behaviour (Atkinson & Shute, 1999; Smelter et al., 1996). Similarly, parents and children are viewed suspiciously and positioned as deceitful, undeserving or ‘fighting for more than their share of scarce resources’ (Lloyd & Norris, 1999, p. 506).

Through such a lens, a diagnosis of “ADHD” comes to be seen as a ‘label of forgiveness’ (Slee, 1995, Reid & Maag, 1997 as cited in Lloyd & Norris, 1999, p. 507); an exonerating construct (Sava, 2000) which works to relieve the individual of responsibility for their actions (Reid & Maag, 1997), and/or provide them with greater access to additional school support services (Augustine & Damico, 1995; Prosser et al., 2002). However, recent work by Graham (2006a) has indicated that the presumption of characteristics consistent with that making up the ADHD diagnostic triad, actually serves to alter the diagnostic terrain where children experiencing difficulties in learning can become ineligible for learning support services if those difficulties can be attributed to difficult behaviour, poor attention or limited memory. Therefore:

...problematic behaviour, and educational difficulties therein, become *managed* through behaviour management policy and programs, not *supported* in the same way as educational difficulties arising from a “recognized impairment” within the learning disability/disability categories, as problematic as these processes may be. (original emphasis, Graham, 2006a, p. 17)

When David Hay in an interview on Australia’s ABC Radio National (Swan, 2000), points to the dilemma that parents face in respect to ADHD diagnosis, the accusation that parents medicate their children in order to exonerate themselves appears even more fallacious. In reality, a diagnosis of ADHD does not equate to sympathy because ‘society doesn’t like it. You’re a bad parent, that’s been the standard explanation of ADHD. You’ve a child with an obvious physical disability you get sympathy, your child with ADHD you get criticism’ (Hay as cited in Swan, 2000). This pain and

sense of being at blame features heavily in the stories of mothers who contributed to Neophytou's study, with one mother saying, 'You're judged by your offspring, you're judged by what you parent' (Neophytou, 2004, p. 66). This does not mean that there are no parents guilty of 'doctor shopping' or gratuitously medicating their children so that they perform better at elite levels (Hay as cited in Mitchell, 2004, p. 6) but this percentage of parents is *much* smaller than many would have us believe.

A very real danger in looking critically at the current medicalisation of child behaviour is that one may simplistically dismiss the difficulties faced and desperation felt by the parents and children involved (DuPaul et al., 2001). The question ought not to be: are they looking for an excuse? But, instead: what makes things so hard, what are parents most afraid of, what options do they feel they have and what can be done to alleviate the struggle in a way that does not make things worse through the labelling, stigmatisation and medication of children?

Whilst there is an abundance of literature that looks to the educational implications of ADHD (Bradshaw, 1998; Hocutt et al., 1993; McBurnett et al., 1993; Zentall, 1993), proffering behaviour management strategies for the classroom (Burcham et al., 1993; Hodges, 1990; Stormont-Spurgin, 1997), and targeted educational interventions (Fiore et al., 1993; Reiber & McLaughlin, 2004); conspicuously absent from the field of investigation is the complicity of the educational institution itself, particularly the use of psychopathologising discourses and influence of schooling practices upon the constitution of "disorderly" behaviour and the subsequent recognition of particular children as a particular kind of "disorderly" (Graham, 2006a). In an attempt to steer the conversation in this direction, I review a sample of the academic literature surrounding ADHD, question the function of this absence and argue for an interrogation of the school as a site for the production of 'disorderly objects' (Graham & Slee, 2006b).

### **(Re)Viewing Attention Deficit Hyperactivity Disorder (ADHD)**

Reviews of the literature surrounding ADHD are numerous (Cooper, 2001; Kos & Richdale, 2004) and, although now somewhat dated, studies by Tyson (1988) and Tannock (1998) provide perhaps the most comprehensive of surveys. Thus, it is not necessary to repeat the same process here. In any case, my objective is not to delineate what ADHD *is* but instead to question whose interests it serves and ultimately, whether the construct is educationally helpful. Therefore, I progress by providing an overview of the dominant conceptualisations of ADHD, in order to contextualise a review of the literature relating to the connection between the increase in diagnosis of ADHD and practices of schooling.

### **Unravelling ADHD**

According to most positivistic accounts, interest in the symptomatology described under the most recent label, Attention Deficit Hyperactivity Disorder (ADHD) has been documented for about the past hundred years (Kos & Richdale, 2004). Credited as a pioneer in 1902, Dr George Still from the Royal College of Physicians had the dubious honour of being 'one of the first to note that symptoms of this disorder were "unnatural", relative to the behaviour of "normal" children of the same age group' (Neophytou, 2004, p. 16). Meanwhile, Cooper (2001, p. 388) goes back further than most, arguing that the 'clinical history of the behavioural syndrome underlying the AD/HD diagnosis can be traced back over 200 years in the medical literature'. Despite Cooper's endorsement of the medical conceptualisation of ADHD (Cooper, 2001; Lloyd & Norris, 1999), the medical literature by no means indicates consensus and medicine remains a culturally influenced practice characterised by many unknowns.

Too much of the literature in support of ADHD as a diagnostic construct refers simplistically to descriptions of fidgety, distracted behaviour in children of the post-Victorian era in an attempt to 'show that ADHD (related behaviours) is not a new, socially constructed phenomenon but rather, is a childhood condition that has existed for at least the past century' (Kos & Richdale, 2004, p. 22). In this way, descriptions of behaviour caused by head trauma is conflated with that caused by an encephalitis outbreak in the early 1900s, which then comes to be subsumed within the evolving behavioural descriptors making up the *DSM* diagnostic criteria for ADHD (see for example Sava, 2000, pp. 150-152). No definitive causal link has been found between the "symptomatology" and any one physiological source, however.

The confused and contentious history of the psychiatric category "ADHD", characterised by the revisionism in medical nomenclature (Hynd & Voeller, 1991; McBurnett et al., 1993) and expansion of diagnostic criteria (Conrad, 1975; Conrad & Potter, 2000), lends itself to doubt and hence, genealogical critique (Laurence & McCallum, 1998). Not surprisingly then, suspicion comes to be reflected in media and popular discourse. This has prompted proponents of ADHD to point to an alleged continuity in symptomatology, rather than in the often conflicting medical explanations of it, in an attempt to resist the 'wealth of literature which challenges the validity of the diagnosis and the positivistic assumptions on which it is based' (Cooper, 2001, p. 387). It appears that this is done in order to (re)secure the validity of ADHD as a diagnostic category (Cooper, 2001; Kos & Richdale, 2004; Sava, 2000), but this is a strategy which gives rise to an uneasy and paradoxical alliance between medicine and psychology - one that is worth teasing out here.

### Medicine & ADHD

Attention Deficit Hyperactivity Disorder is one of the most widely researched topics with scholarship spanning across multiple disciplines: medicine, psychology, social work, criminology and education - to name just a few. Of the multiple ways of looking at the phenomenon encapsulated within the 'lexical label' (Mehan, 1996, p. 345) that is "ADHD", two paradigms dominate: medicine and psychology. Whilst there is some overlap between the two (for example, between neurological medicine and neuropsychology) to categorise broadly, the medical model can be characterised by the argument that "Attention Deficit Hyperactivity Disorder" is the name given to represent a constellation of behaviours - the excessive display of which is said to reflect neurological dysfunction in the frontal region of the brain, an area thought to be responsible for inhibition and attentional control (Barkley, 1997; Holmes, 2004; Tannock, 1998). Despite general acceptance of the hypothesis that ADHD "symptomatology" derives from neurological anomaly in the cortical or frontal lobe area of the brain, 'there continue to be dissenting opinions' (Riccio et al., 1993, p. 120).

For example in 1991, Hynd and Voeller studied the neurobiological basis of ADHD, to cautiously conclude that:

On the basis of the present evidence it cannot be concluded that all children with ADHD have symptoms that reflect neurological dysfunction. However, accumulating evidence from the genetic, biochemical, neurobehavioural, and neuroimaging studies strongly suggest a neurological etiology in most children... The consistencies among these diverse data sources are considered more than coincidental. The findings of the studies noted in this review point to specific brain regions and functional systems which may be associated with ADHD' (Hynd & Voeller, 1991, p. 7).

Then in 1993, whilst acknowledging a concordance in research implicating neurological processing, Riccio et al. (pp. 118-122) state:

One of the problems facing researchers attempting to localize or identify the basis of ADD is the inability to map behavioral descriptors onto relevant neurologic components... Although evidence has supported the role of both neurochemical and neuroanatomical perspectives of ADD, neither theory, taken individually, fully accounts for the myriad of behaviours associated... Research findings, however, have not unequivocally supported any of this evidence... It is unlikely that the questions regarding the neurological basis of ADD will be answered unless a set of reliable criteria that are research-based can be established and consistently employed in the diagnosis of the disorder... In the absence of clear neurological evidence for the diagnosis, clinicians will continue to make diagnoses based on behavioral observations.

Four years later Australian researchers Levy, Hay, McStephen, Wood and Waldman (1997) in a paper that 'won the prize in 1997 for the most important child/adolescent psychiatry paper in the US' (Hay as quoted in Swan, 2000), reported findings from a genetic analysis large-scale twin study and concluded that as a discrete "disorder" ADHD did not exist (Hay as quoted in Swan, 2000). Instead, Levy et al. (1997) found that the "symptomatology" was genetically present across the whole population in differing degrees and thus, ADHD could be 'best described as a continuum, which implies that there is no physiological significance attached to any diagnostic cutoff criteria based on a number of symptoms' (Levy et al., 1997, p. 743). This means simply that some people are genetically predisposed to engage in normal behaviours at levels that are considered extreme by others. However, whilst Hay (Swan, 2000) refers to blood pressure and blood sugar levels as analogous continuums upon which arbitrary cutoffs are also employed, the methods for measuring these phenomena are far more sophisticated, reliable and objective than the methods currently used to "measure" behaviour. That is; what is bothersome to me might not be to another and so on. What is bothersome about *this* though is that teacher attitude, tolerance, pedagogical style and beliefs have enormous influence and, in many cases, the class teacher can be the deciding factor as to whether a child gets picked up on the ADHD radar (Glass & Weagar, 2000).

Meanwhile leading diagnosticians in the field, such as Dr Daryl Efron, a paediatrician with the Royal Children's Hospital in Melbourne, acknowledge that the diagnostic process is subjective and far from evidence-based:

It's just one of those fields where there's not an absolutely clear-cut answer, despite the enormous amounts of research in this field; it's not as though there isn't evidence, it's just that the starting point, the diagnostic criteria, are a little bit blurred. Ultimately each question on each questionnaire is subjective, and the outcomes are incredibly difficult to measure (Dr Daryl Efron as cited in Swan, 2000, 23rd October)

In her review of the literature, Tannock (1998, p. 68) maintains that much of the difficulty in the aetiology of ADHD could be because '[m]ost of these models seek a single, unitary cause, located within the biological, neurological, and/or genetic substrate – that is, within the individual'. She argues that 'ADHD and its component symptoms are likely to arise from multiple interacting factors that cannot be understood in isolation' (Tannock, 1998, p. 68) and advocates a developmental systems (or biopsychosocial) perspective in future research which would need to 'incorporate professionals, theories and methods from a variety of fields including behavioural and molecular genetics, cognitive and developmental psychology, neurology, neuroscience, and medicine' (Tannock, 1998, p. 90). Interestingly, research from the field of education does not appear to be considered an important contributor, despite the pivotal relationship between the demands of schooling and the behaviours that come to be rearticulated as "behaviour disorder". Whilst I baulk at the categorisation of students in psychobiological terms, Purdie, Hattie and Carroll (2002, p 89),

make a strong argument when they state 'if we are looking to promote educational success among students with ADHD, we must use strategies that directly address their academic difficulties'.

### *ADHD & Medicine/s*

It appears that the general acceptance of neurological involvement has contributed to a greater acceptance of the prescription of restricted class psychopharmaceuticals to children and young people. As Riccio et al. (1993, p. 121) point out, since researchers 'have generally accepted that the catecholamines (dopamine, norepinephrine) are implicated in ADD' (Riccio et al., 1993, p. 121), there has been an increased recourse to psychopharmaceuticals - particularly the substances claimed to be the most effective, methylphenidate and dexamphetamine sulfate. Researchers still do not know exactly what these substances *do*, however. Stimulant medication is *thought* to increase the level of dopamine and norepinephrine between the synapses or neurotransmitters of the brain (Whalen & Henker, 1998) or to increase the blood flow to areas of the brain (Holmes, 2004) believed responsible for executive control, however, the difficulties in pinning down neurological involvement noted earlier translate to similar problems in working out not only what stimulants do and how they do it but also what long-term effect they may have upon developing brain chemistry.

Despite the lack of definitive explanation or conclusive proof with regards to either ADHD aetiology or the function of stimulant medication (let alone the long-term educational or health effects, see discussion in Levy, 2001, p.47), the production of methylphenidate (Ritalin) and dexamphetamine sulfate (Dexedrine) has soared since 1990. In the US, prescriptions for Ritalin 'rose dramatically in the early 1990s and have since levelled off at approximately 11 million per year. In comparison, amphetamine prescriptions, primarily Adderall<sup>i</sup>, have increased dramatically... from 1.3 million in 1996 to nearly 6 million in 1999' (see Statistics on Stimulant Use in Gaviria, 2001). On the other hand, Australian statistics present a slightly different picture because dexamphetamine has been subsidised under the Commonwealth Government Pharmaceutical Benefits Scheme and this has influenced usage patterns.

Ritalin (methylphenidate) is the drug most commonly associated with the treatment of ADHD. In Australia, Ritalin is not listed on the Pharmaceutical Benefits Scheme (PBS) and therefore the cost of the drug is not subsidised by the Commonwealth Government for the treatment of ADHD. Accordingly, a far greater number of prescriptions are dispensed in Australia for dexamphetamine compared to Ritalin. (Mackey & Kopras, 2001, p. 1)

The dramatic increase in prescription of stimulants in Australia, coupled with a 'disparity in the number of prescriptions for dexamphetamine sulfate dispensed in different parts of Australia' (Mackey & Kopras, 2001, p. i) has not gone unnoticed, triggering a number of Parliamentary inquiries into the matter. The most recent report published in 2001 attests that 'in 1991, less than 10 000 prescriptions were dispensed for dexamphetamine sulfate. In 1998, nearly 250 000 prescriptions were dispensed for the same drug, an increase of 2400 per cent. Over the same period, prescriptions dispensed for Ritalin increased from 13 398 to 96 582, an increase of 620 per cent' (Mackey & Kopras, 2001, p. 4).

Accordingly, Diller argues that 'Australia appears to be the only nation that has experienced a documented increase in psychostimulant use that parallels that which has occurred in the United States' (Diller as cited in Prosser & Reid, 1999, p. 111), whilst psychiatrist George Halasz maintains that Australia is now third highest in stimulant medication use behind Canada and the US (Halasz as reported in Mitchell, 2004). Strangely, despite the controversy surrounding stimulant prescription rates in Australia, Ritalin (methylphenidate) was added to the Pharmaceutical Benefits

Scheme in 2005 to ostensibly 'provide patients with a choice of two PBS-listed drugs for ADHD [costing] the PBS between \$1.4 and \$1.7 million each year (Miranda, 2005, p. 1).

Psychostimulant medications such as dexamphetamine and methylphenidate are believed to have a "paradoxical effect" upon individuals exhibiting behaviours consistent with those making up the *DSM-IV-TR* diagnostic triad for ADHD: hyperactivity, inattention and distractibility (APA, 1994). However, research has since shown that psychostimulant medication affects *all* individuals with some level of improvement in concentration and energy (Purdie et al., 2002; Swanson et al., 1993). The variable *now* appears to be the degree of effect. Most problematically though, psychostimulant medication can have severe side-effects such as appetite suppression, insomnia, teeth grinding, tics, tachycardia, emotional instability, growth retardation and so on (Green & Chee, 1997; Purdie et al., 2002) and any so-called "therapeutic" effect is temporary (Selikowitz, 1995). Even the nature of that "therapeutic" effect is the subject of debate, as comprehensive research has demonstrated that the 'estimated effect on *behaviour* is much larger than the estimated effect on *achievement*' (emphasis added, Swanson et al., 1993, p. 156). Despite the research evidence, some proponents of the medical model make claims to the contrary:

In a child who is receiving an appropriate medicine, all other forms of treatment, such as educational and psychological intervention, will be more effective. These medicines help the child's brain to function like the brains of other, normal children; they do not sedate the child. Most, but not all, children will be helped by medication. It is important to note that these medicines offer treatment, not a cure. This means that their effect on behaviour lasts only as long as the medicine remains in the child's body, although any skills the child has learned will persist. (Selikowitz, 1995, p. 151)

Problematically Selikowitz's book, like others that skim over these controversies (Green & Chee, 1997; Wallace, 1999), are marketed at parents who may make the decision to medicate because they believe it will help their child by removing "behavioural barriers" possibly affecting their learning progress. Given that success in school is such a determining factor in life choices, it is understandably that parents worry about their child's ability to survive and do well. However, as Teeter (1991, p. 5) acknowledges 'neurochemical studies consistently show that while medication reverses hyperactivity, learning deficits persist'. This was still the case when Purdie, Hattie and Carroll conducted a meta-analysis of interventions in 2002, concluding that 'the present findings do not indicate that such flow-over effects to learning or achievement occur' (Purdie et al., 2002, p. 88) and that the major impact of medication was on improved behaviour, more benefiting teachers and parents than the child. Thus, arguments that advocate the medication of children for their educational or learning benefit become all the more tenuous, for as Hynd et. al. (1991) attest,

parents and teachers may expect that once the inattention and motor overactivity associated with ADHD are diminished due to stimulant medication, learning difficulties may be equally attenuated... methylphenidate (Ritalin) seems to affect metabolic activity associated with the motor-readiness-impulse control systems... but it does not appear to have a direct effect on regions of the brain typically associated with cognitive processes required in learning complex information. (Hynd et al., 1991, p. 2)

Thus, the question begs, "therapeutic" for whom? If medication is effective in reducing behavioural "symptoms" as indicated in the literature and relatively ineffective on learning, then what is the medication of children and young people *really* doing? What is the goal? If pharmaceutical suppression of behaviour does not translate to better academic achievement as one might assume it would (less distraction: more work done, more attention paid: more absorption of academic

material, less activity: less distraction: more attention to learning... and so on), then *what* exactly is medication achieving and for *whom*?

Indeed, medication is only found to be “effective” (that is, when medication acts to suppress problem behaviours) in only about two thirds of children diagnosed with ADHD (Green & Chee, 1997; Swanson et al., 1993). Those for whom medication has no effect are called “non-responders” and are subsequently left out of medication trials and much of the conversation surrounding ADHD (Hechtman et al., 2004). With those children who *do* respond “positively” to stimulant medication, the side-effects of stimulants means that dosage must be carefully regulated, so that the effects are sufficiently dulled to allow the child to eat and fall asleep at night. However, none of the medication used in the “treatment” of ADHD, and this includes the SSRI and tricyclic antidepressants and even the blood pressure medications often called upon, can lay claim to *curing* those “symptoms” (behaviours) said to belong to Attention Deficit Hyperactivity Disorder. Once the drugs wear off, little Johnny or Jenny (and their parents) are right back to where they were – at the unacceptable end of the behavioural continuum. Interestingly, this is where it appears the complicated interdependency between medicine and psychology comes into play and where the medical and psychological paradigms diverge only to (re)converge.

### Psychology & ADHD

The psychological literature features compelling arguments that such behaviours can be influenced by extrinsic factors outside the child’s control, such as environment (Christian, 1997; Panksepp, 1998; Pellegrini & Horvat, 1995) as well as the other “usual suspects” - familial and socioeconomic status, maternal levels of education, abuse, depression and pre and postnatal trauma - the literature on which is too numerous to list (see discussion in Whalen & Henker, 1998). Accordingly, many psychologists argue for a psychosocial understanding of problematic behaviour, however, there appears no escaping the suppression of those same symptoms with ‘active medication management’ (Levy, 2001, p. 45), the occurrence of which privileges medical conceptualisations of ADHD and the involvement of the neurological system. This can be dangerous, as Levine (1997, p. 200) points out, because the medical model ‘which highlights the notion of individual deficiency from a primarily biological perspective, robs practitioners of the opportunity to appraise the impact of environmental influences on diagnoses such as ADHD’.

Writing in the field of social work, Levine (1997, p. 199) deplores ‘narrow forms of intervention that ignore such societal concerns as overburdened families, underfunded and overcrowded schools, poverty, sexism and, for some children, traumatic exposure to violence’. He states that the ‘imposition of powerful medications may eliminate unpopular symptoms, but they also may mask a child’s attempt to convey various forms of trauma [since] children frequently display behaviours that disclose experiences they cannot communicate through verbal language’ (p. 201-202). To Levine’s caution that processing skills and self-control can be influenced by diverse factors, such as poverty, hunger and lead toxicity (Levine, 1997, p. 201), I would add that distractibility, attention and activity levels can also indicate children who experience difficulties in receptive and expressive language, semantic/pragmatic properties of language, phonological and auditory processing, abstraction and other areas essential to learning (Cantwell & Baker, 1991; Heydon & Iannicci, 2002; Riccio & Hynd, 1993).

Suppressing the behaviours through medication (or exclusionary behaviour management techniques) may achieve a more orderly classroom (Slee, 1994, 1995) but also may result in the child never getting the support and understanding they really need. Instead, as Levine (1997, p. 202) argues,



...the narratives of these children consistently show their sense of loneliness and isolation, usually immersed in shame and cloaked in self-directed blame. Very few children show display awareness of the situational context in which their symptoms emerge. They tend to adopt the harmful cultural tale that there is a great deal wrong with them. Typically, this precludes any recognition of their own strengths.

The incompatibility but suspected involvement of genetic, neurologic and social factors has meant that as a concept "ADHD" comes to be understood through a biopsychosocial theoretical framework, but distinct studies still occur without much cross-fertilisation. As the former editor of *The Journal of the American Academy of Child and Adolescent Psychiatry* states,

... biopsychosocial theory has not advanced since Engel proposed it in the 1970s. It is a theory that simply tells us there are three dimensions in human behaviour, and stops. There is no integration of the three levels, no theory building. If you don't believe me, listen to a presentation at the next case conference, or to candidates at the ABPN board certification exam. At best you will hear a careful recitation of three separate lists of factors, unrelated to each other. (McDermott, 2004, p. 657)

This is particularly the case with ADHD with neglect to research that looks not just to the implications of ADHD for *education* but to the rise of ADHD as a *symptom of the disorders of schooling*.

### *ADHD & the psychologies*

Somewhat problematically, the tentativeness which characterises much of the medical literature is not always carried through elsewhere. For example, psychologists Kos and Richdale (2004, p. 24), conclude that because 'difficulties with overactivity, impulsivity, and attention have been documented for over a century', the existence and status of ADHD as "truth" can thus be 'supported by research and clinical findings over this time'. However as discussed earlier, the literature surrounding ADHD by no means reaches consensus and medical researchers have failed to find a comprehensive link between the so-called "symptomatology" constituted by the behavioural descriptors associated with ADHD and any core biophysiological or neurophysiological region; that is, the problem, according to Riccio et al. (1993), appears to be in the generalisability, applicability and validity of the behavioural descriptors themselves.

Interestingly unlike Cooper (2001) who does engage with at least some of the dissenting voices within the literature, Kos and Richdale (2004) appear unaware of the subtle but important contradictions plaguing the concept of ADHD. These are nonetheless contradictions which have given rise to deep concern over not only the validity of the diagnosis but the ethical, philosophical and social implications of pathologising and medicating children (Damico & Augustine, 1995; Danforth & Navarro, 2004; Graham, 2006b; Graham & Slee, 2006a; Graham & Slee, 2006b; Harwood, 2006; Levy, 2001; Slee, 1995; Tait, 2001; Thomas & Glenny, 2000). Instead of acknowledging the complexity of the terrain, Kos and Richdale argue for the validity of the ADHD construct by pointing to what *they* see as a continuity in the symptomatology, forgetting as do others, that the "symptomatology" is contingent upon the subjective judgement of teachers or parents or continually narrowing culturally normative conceptions of child behaviour.

Problematically, the foundation for this "continuity" is an alleged correlation between the 'majority of the behavioural difficulties described in Still's [1902] lectures... [and] ... three childhood disorders described in the [DSM-IV] ... ADHD, Oppositional Defiant Disorder (ODD), and Conduct Disorder (CD)' (Kos & Richdale, 2004, pp. 22-23). In making this connection, however, Kos and Richdale blithely ignore the heterogeneity in the behaviours of the population/s said to

exhibit ADHD “symptomatology” (see discussion in Tannock, 1998, pp. 66-69) and instead concentrate on using the tenuous connection to subtly advance a psychological perspective. Thus, because medicine cannot conclusively map behavioural descriptors to relevant neurological or indeed biophysiological origins, nor locate ‘biological markers for ADHD or its component symptoms’ (Tannock, 1998, p. 89), Kos and Richdale (2004) argue, albeit obliquely, for a psychological conceptualisation. However in doing so, they privilege the nebulous and value-laden behavioural descriptors which have themselves given rise to much of the controversy relating to the validity of the ADHD diagnostic category (Riccio et al., 1993; Tait, 2001; Thomas & Glenny, 2000). It is not hard to see why these normative and moralistic descriptors have given rise to critique:

For example, being forgetful, fidgety and unable to maintain attention are features of ADHD (APA, 2000). Losing one’s temper, arguing, being spiteful, and annoying others are characteristic of ODD (APA, 2000), and threatening others, hitting children with sticks, killing animals, stealing and setting fires are all behaviours associated with CD (APA, 2000). (Kos & Richdale, 2004, p. 23)

The attempt to point to the continuity of “symptomatology” over the course of 100 or more years, whilst simultaneously advancing a psychosocial perspective with regards to causality, is a seriously flawed argument. The ten plus decades spanning 1902 to 2006 have undoubtedly been witness to the most social and technological change in human history. For example in 1902, nine years after neighbouring New Zealand, Australian women were finally granted the right to vote. Since then there has been rapid industrialisation, two World Wars, an economic depression and numerous recessions, and the development of weapons of mass destruction. There has been increased availability of antibiotic therapy, which has brought about the virtual eradication of diseases such as smallpox, polio and tuberculosis in most developed countries but, at the same time, we have seen the development of resistant superbugs, like *Staphylococcus Aureus* (Golden Staph) and HIV/AIDS. There has been rapid computerisation, anti-discrimination legislation, decent contraception, test tube babies, long-day care, fast food and fast capitalism. TV killed the Radio store, Barbie is losing market share to Bratz (Morgan & Moses, 2002) and Elvis to Eminem (Rich, 2002).

In short, the social world of children in 2006 is completely alien to that of children in 1976 (when I was about the age my children are now) - let alone the lived-experiences of children in 1906. Yet we are expected to accept that because ‘a German doctor, Heinrich Hoffman... clearly describes ADHD-related behaviours’ (Kos & Richdale, 2004, p. 22) in the children’s story he wrote for his son in the late 1800s, that the ‘development of the current definition of ADHD has a long history’ (Kos & Richdale, 2004, p. 22). Or, most problematically, that the activity levels of children in contemporary times can be directly compared to and correlated with those of children who happened to come under adult scrutiny in the repressive Victorian era.

The field of psychology, diverse though it is, tends towards a psychosocial paradigm to provide explanation of and intervention for child behaviour that is considered undesirable. Psychological theory is deeply imbricated in the industry surrounding child behaviour “disorderedness”. In many instances, psychometric testing against normative standards remains one of the means by which “abnormal” children become defined and located. Despite the unreliability of psychometric testing, particularly with respect to diagnosing ADHD (Wolraich et al., 2003), a child’s performance on psychometric sub-tests can determine whether their problems in school will be classified (and supported) as a “recognised” learning difficulty or whether their difficulties in learning are caused by their problems with attentional control and, thus viewed as problems to be “managed” through either medication or exclusionary behaviour management techniques(see Graham, 2006a).

Despite a general lack of agreement as to whether there is a discrete biological causal link (Hynd & Voeller, 1991; Levy et al., 1997; Riccio et al., 1993), the medical model of ADHD continues to posit neurobiological dysfunction (a hypothesis that appears to have gained the status of truth) as the cause for disorderly behaviour, which leads to 'medical practitioners having the primary role in interventions' (Atkinson & Shute, 1999, p. 124). This is to the apparent detriment of psychologists keen to remain key players in the satellite industry surrounding behaviour "disorderedness" (Slee, 1995), prompting some in the academy to suggest that practitioners of psychology avoid the use of words 'such as "symptoms" and "diagnosis" [which] automatically give precedence to a medical model of ADHD' (Atkinson & Shute, 1999, p. 123).

In relation to the "treatment" of ADHD, in the main, psychological paradigms defer to the medical explanation of neurological dysfunction and the prescription of psychopharmaceuticals as a "first-line approach" (Wallace, 1999), however, because medication has failed to provide a solution to the "problem" it was meant to solve, psychologists have been successful in arguing for a multi-modal approach to the treatment and management of ADHD through behaviour modification techniques and management programs (Atkinson & Shute, 1999; Wallace, 1999). As such, the ensuing reciprocal relationship that has developed between medical and psychological practitioners has been the *condition of possibility* for the expansion of the concept of child behaviour "disorderedness" - for a protracted war between the two paradigms would weaken rather than strengthen claims on *both* sides. Despite research that demonstrates medication effects only behaviour and has relatively no impact on the higher-order and longer-term processes of learning (Hynd & Voeller, 1991; Purdie et al., 2002; Swanson et al., 1993; Teeter, 1991), the dominant "reach before you can teach" ethos allows medical practitioners to acknowledge the psychological perspective, whilst remaining firmly within and giving precedence to the medical conceptualisation of ADHD:

Nowadays, most children with major ADHD will start stimulants on their first visit. **If you reach (with stimulants) then you are able to teach (with behaviour programs, therapy and schooling).** (original emphasis, Green & Chee, 1997, p. 144)

By the same token, having developed a working relationship with medical practitioners through multi-modal treatment arrangements, psychological practitioners secure a legitimate place in the space surrounding the "behaviourally disordered" child. Psychological treatment of children who come to be described as "attention deficit hyperactivity disorder" aims to teach inhibitory responses through what could be simply described as cause and effect training. However, several major studies have failed to demonstrate that psychological interventions (intensive or otherwise) provide any benefit over medication alone (Hechtman et al., 2004; Levy, 2001; Whalen & Henker, 1998).<sup>ii</sup> Thus multi-modal treatment models, whilst generally considered the best option in the management of ADHD (Atkinson & Shute, 1999), do not live up to either expectation (Whalen & Henker, 1998) or promise (Wallace, 1999).

This may be because "multi-modal" models tend to privilege psychological "treatments", rather than educational (as in pedagogical) interventions. Complicated response-cost self-management practices are not only difficult for teachers to run in conjunction with their always-already crowded curriculum and teaching responsibilities, but such practices do nothing to address a child's learning needs when, for example, they may have difficulty understanding abstract or complex instructions. In addition, psychological services are difficult to access. Public services are plagued by long waiting lists and private services are prohibitively expensive (Gifford Sawyer et al., 2004). Given that the effectiveness of psychological interventions is equivocal and that they are hard to access

and can be expensive, it is no small wonder that many parents resort to medicating their children despite the overwhelming majority calling for more support (Gifford Sawyer et al., 2004, p. 1362).

The irony is that stimulant medication, by far the most prescribed medication in relation to ADHD, operates *during school hours*. In order that the child can eat and sleep, the medication must wear off by late afternoon. Parents have to deal with the rebound effects of that medication which, incidentally can cause behaviour far worse than that which the child was originally medicated for. Also, to offset the side-effects (such as growth retardation) specialists sometimes advocate “drug holidays” (Green & Chee, 1997). These drug-free periods are usually during weekends and school holidays – times when parents continue the battle alone with a child who literally does not know whether they are coming or going. As such, the argument that parents medicate children for their own benefit is ludicrous. More research is needed into the pressure that schools and teachers place parents under to medicate their children and the motivating factor that fear of school failure has upon parents. In addition, I would argue that more research is needed into parent perspectives, why they might make the decision to medicate and, most importantly, whether they still would - *if* their children were better resourced, supported and understood in school.

### Medicine, Psychology & ADHD

Whilst I am favour of neither, the fundamental difference between medical and psychological models lies in their respective theorisation of agency, reason and control with an effect towards perceptions of responsibility and culpability. The medical model appears to accept the “disordered” child as having little or no control over their actions. The psychological model, on the other hand, is dependent for its very existence on the paradoxical assertion that the child *can* exert or *learn* self-control. Difficult behaviour is interpreted as misdirected behaviour (Atkinson & Shute, 1999) or seen as behaviour that is gaining a pay-off which can be fixed by re-arranging the terms (Wallace, 1999). On the side of the medical model, there is the assertion of a lack in the *faculty* to control (Green & Chee, 1997; Holmes, 2004; *National Institute of Mental Health, US Department of Health and Human Services*, 1994), which results in a view of the child as not entirely responsible for their actions.

However, psychological concepts rely on the operation of this faculty (Ollendick & Hersen, 1998; Powell & Inglis-Powell, 1999; Wallace, 1999), and this constitutes the shaky epistemological base upon which psychological interventions (behaviour management/modification) rest. I say *shaky* because if, as Atkinson and Shute concur, ‘the generally accepted premise is that the medical model is the appropriate one’ (Atkinson & Shute, 1999, p. 124) and ADHD and other disruptive behaviour “disorders” are behavioural reflections of neurobiological anomalies affecting a child’s ability to self-regulate, then where does that leave behaviour modification techniques that require self-regulatory abilities? Indeed, psychology is forced to subordinate to medicine when faced with this problematic:

...diverse psychosocial and behavioural treatments have been applied to ADHD... parent training, and family counselling, social skills training, academic remediation, cognitive-behaviour modification, biofeedback, insight therapy, and even exercise regimens. Cognitive-behavioural approaches appeared especially promising, given the pervasive self-regulatory deficits of ADHD children, but the outcome data have been disappointing... In the vast majority of controlled studies, non-pharmacological approaches pale relative to stimulant treatment, and the question of whether any psychosocial treatment makes an additive contribution remains open. (Whalen & Henker, 1998, p. 200)

Despite the evidence pointing to a lack of effectiveness in psychological intervention, within the schooling context behaviour intervention techniques informed by the psychological model prevail over medical conceptualisations of behaviour “disorderedness” and its more conservative estimate of the agentive capabilities of the child<sup>iii</sup>, however, it must be stated that the medical model is just as problematic and not just because of the increasing recourse to psycho-pharmaceutical control (Mackey & Kopras, 2001). Despite large-scale research that shows educational interventions to be more successful in responding to problematic behaviour in schools (Purdie et al., 2002), psychological conceptualisations predominate – particularly those which privilege the use of behaviour management techniques drawing on the ‘inherently authoritarian’ (Grieshaber, 1997, p. 33) and exclusionary logic of cognitive/behaviourist psychology.

### ADHD & Schooling

According to Australian Bureau of Statistics data, increasing numbers of school-aged children are being described as ‘behaviourally disordered’ and diagnosed with the psychiatric disorder commonly known as ADHD (ABS, 2000). Correspondingly, there has been a sustained increase in prescriptions for stimulants administered to children diagnosed with ADHD (Davis et al., 2001; Mackey & Kopras, 2001; Prosser et al., 2002). Statistics in the Commonwealth Government publication, *Accounting for Change in Disability and Severe Restriction, 1981-1998*, not only confirm this trend but isolate unparalleled growth in the diagnosis of ADHD amongst boys 5 to 15 years of age (Davis et al., 2001). The report indicates that due to the rise in ADHD diagnoses, the number of young boys diagnosed with either a mental or behavioural condition increased almost tenfold in the period between 1988 and 1998; from 2,200 boys to 20,800 respectively (Davis et al., 2001, p.14). It also draws attention to one spectacular increase in ADHD diagnosis over a period of some five years to illustrate the scale of the rise, stating that “[b]etween the 1993 and 1998 surveys, the rate of ADHD increased markedly, particularly among boys aged 5 to 14. The number with ADHD in 1998 (10,700) was greater than the total recorded with a mental disorder in 1993’ (emphasis added, Davis et al., 2001, p.15). Evidently girls have not been immune, as the number of girls diagnosed with mental and behavioural conditions<sup>1</sup> doubled in the ten years between 1988 and 1998 (Davis et al., 2001).

Among existing explanations are assertions that parents (Shanahan, 2004) and/or lobby groups (Conrad, 1975) are behind the exponential growth in diagnoses of psychiatric behaviour disorders and this argument is also reflected in the professional literature (Atkinson & Shute, 1999; Reid et al., 1993; Smelter et al., 1996). However, this is too simplistic an explanation as to why increasingly large numbers of school-age children, particularly those in early primary, are being diagnosed as psychiatrically and behaviourally disordered. Particularly when research indicates that teachers are often the first to suggest a diagnosis of ADHD (Sax & Kautz, 2003) or recommend that parents take their child to a “professional” to investigate their hyperactive, distractible, impulsive behaviour (Neophytou, 2004).

It is interesting to note that Davis et al. (2001) point to a correlation between a peak in the *Disability and Severe Restrictions Rate* (measuring diagnosis of mental and behaviour disorder) and the start of compulsory school attendance. Due to the impact of ADHD diagnoses, the rate peaks at five years of age and is maintained steadily from there until dropping again post-compulsory schooling age (Davis et al., 2001, p. 6). Whilst the report considers several possible impact factors, i.e. that there is no reliable reporting agency tracking children once they leave school (Davis et al., 2001, p.6); it appears the contribution of pedagogical discourses, policies and practices to these escalating rates receives scant, if any consideration.

---

<sup>1</sup> Differentiation between disorders is not made for girls in this report.

Attention Deficit Hyperactivity Disorder (ADHD) is characterised in the *DSM-IV-TR* by the presence of behaviours apparently incongruent with those most desired for success in the classroom environment (Stormont-Spurgin, 1997). For example, the *DSM-IV* diagnostic process requires that the child meet six or more criteria in either (1) Inattention or (2) Hyperactive-Impulsive categories (APA, 1994), listed below:

**(1) Inattention**

- (a) often fails to give close attention to details or makes careless mistakes in school work, work, or other activities
- (b) often has difficulty sustaining attention in tasks or play activities
- (c) often does not seem to listen when spoken to directly
- (d) often does not follow through on instructions and fails to finish school work, chores, or duties in the workplace (not due to oppositional behaviour or failure to understand instructions)
- (e) often has difficulty organising tasks and activities
- (f) often avoids, dislikes, or is reluctant to engage in tasks that require sustained mental effort (such as school work or homework)
- (g) often loses things necessary for tasks or activities (e.g. toys, school assignments, pencils, books, or tools)
- (h) is often easily distracted by extraneous stimuli
- (i) is often forgetful in daily activities

**(2) Hyperactivity-Impulsivity**

*Hyperactivity*

- (a) often fidgets with hands or feet or squirms in seat
- (b) often leaves seat in classroom or in other situations in which remaining seated is expected
- (c) often runs about or climbs excessively in situations in which it is inappropriate (in adolescents or adults, may be limited to subjective feelings of restlessness)
- (d) often has difficulty playing or engaging in leisure activities quietly
- (e) is often "on the go" or often acts as if "driven by a motor"
- (f) often talks excessively

*Impulsivity*

- (g) often blurts out answers before questions have been completed
- (h) often has difficulty awaiting turn
- (i) often interrupts or intrudes on others (e.g. butts into conversations or games)

A cursory glance at the list above is enough to notice that most of the behaviours listed are connected with (and one could even argue contingent upon) the demands of schooling. Not blurting out answers in class, remaining in one's seat and being still and quiet are cultural expectations brought about by the advent of mass schooling. For example, if children were still working in the mines at nine years of age their energy levels would be considered a bonus. However, the modern and increasingly unnatural demands of schooling have resulted in the

rearticulation of normal childhood exuberance, curiosity and energy as “unnatural”. Problematically the contribution of changes in schooling demands - such as lowering of school entry ages, increased emphasis on academic learning and seat work, pressure for children to learn to read earlier and better, crowding of the curriculum, the shortening of children’s recess and lunch times – barely rate a mention in the myriad of contributing and causal factors being considered in the literature around ADHD.

Add to this the problem of teacher subjectivity. For example, the NSW Association of Gifted and Talented Children website (*NSW Association for Gifted & Talented Children Inc.*, 2006) lists some characteristics of giftedness as:

- Needs little outside control – applies self discipline
- Has a power of concentration, an intense attention that excludes all else
- Has a long attention span in areas of interest

*But* - how do we measure little, intense or long? To whose understandings of these things do we refer?

Does this mean that the little girl who sits quietly and colours in “intensely” and concentrates carefully to stay within the lines for thirty-five minutes is “gifted”? Our response as educators and our conceptualisation of the child determines to a large degree how the child comes to characterise themselves and ultimately, whether the child is identified as “gifted”. What about the boy who fidgets, calls out in class, is careless in his work and spends long episodes staring intensely out the window? Could he be “gifted” or do his characteristics align more easily with the following descriptors taken from the aforementioned *DSM-IV* list said to indicate the presence of Attention Deficit Hyperactivity Disorder:

Inattention: often fails to give close attention to details or makes careless mistakes in school work, or other activities;

Hyperactivity: often fidgets with hands or feet or squirms in seat;

Impulsivity: often blurts out answers before questions have been completed.

So, who *is* gifted? The thing is, we can never know definitively. Teachers make up their own minds about what they think constitutes “giftedness” and also about what behaviours they think are “normal”. The problem is that we treat children accordingly and the bright little boy tapping his fingers on his desk and daydreaming as he stares out of the window, disengaged from the business of learning is appreciated for neither his discerning taste nor his boundless energy. He becomes labelled as “ADHD” because in the moment the teacher interprets his behaviour by referring to the repertoire of signs (i.e. behavioural categories) with which he/she can make sense of that particular child, the “ADHD” signifier comes to displace the competing signifier, “gifted” or the weakest signifier of all, “normal”.

Characteristics of value in our society have morphed over time. We are moving away from commodity based economies into the knowledge economy; a globalised, information society. One effect of this has been the gradual depletion of unskilled labour, an increase in the youth unemployment rate, a consequent requirement for young people to remain at school for longer and to gain higher credentials, and pressure on schools to retain students that previously would have

been ejected either into the trades or larger unskilled labour markets (Slee, 2001). A derivative effect is that there is now increased emphasis on seat-work and a privileging of the characteristics required to more easily conform to this mode of learning.

Some proponents maintain that children diagnosed with ADHD benefit from medication in that they become better disposed to learning (Green & Chee, 1997). This is not supported by extensive research that has demonstrated that use of stimulant medication does not result in learning benefits for the medicated child (Hechtman et al., 2004; Swanson et al., 1993) but in more docile behaviour appropriate to the orderly running of the classroom (Slee, 1994, 1995). Interestingly, Purdie et al. (2002) found in their review of the interventions advocated for use when dealing with behaviours said to indicate Attention Deficit Hyperactivity Disorder, that the effects on educational outcomes were greater for educational interventions than for any other types of intervention - including medical, psychosocial and parental training interventions. Other researchers observe the danger in medicalising the educational problem of disruptive behaviour in schools because this may cause educators to see such behaviour as 'strictly biological and outside their expertise' (Prosser et al., 2002) or indeed as a dispositional problem (Thomas & Glenny, 2000) not related to their choice of pedagogy or ability to engage children in learning.

### **The Inclusion of Students with ADHD**

Much of the literature that looks to ADHD in relation to schooling focuses upon what can be done to facilitate the "inclusion" of the ADHD child into the "regular" or "mainstream" classroom (Bradshaw, 1998; Sava, 2000). Privileging the status quo in this way has led to an emphasis on what adjustments can be made to the child, leaving pedagogy relatively unaltered. Even researchers like Stormont-Spurgin (emphasis added, 1997, p. 270), who offers a myriad of strategies for teachers, states:

The ability to be organized is a particularly important topic in the era of inclusive education and in light of the subsequent call for teachers to make accommodations for students with disabilities and other special needs in the *regular classroom*... In view of the fact that students with ADHD are most likely to be educated in *general education settings*, most of the strategies provided *require minimal change from traditional teaching techniques*.

The strategies she outlines end up constituting part of a student 'treatment plan' (p. 271) as opposed to a pedagogical or teaching adjustment plan. The student "treatment plan" involves data collection by the teacher (i.e. counting the number of times the student has lost something) and the setting of objectives to be achieved through the implementation of the strategies suggested. These range from cooperative homework teams, positive reinforcement and written behaviour contracts, routines and lists, assignment folders and daily planners, and increased collaboration and communication between teachers, parents and students. Interestingly, Stormont-Spurgin (emphasis added, 1997, p. 272) notes that 'the strategies can be used with any students who have organizational problems. In fact, many of the following strategies would be useful for *all* students'. Here, she unwittingly stumbles on one of the fault-lines traversing the turbulent terrain of ADHD and schooling.

If all students would benefit from the use of such strategies, then would it not be reasonable to argue that all teachers should be able to assist students in learning such skills? Should we not expect, given the benefit of 'an orderly environment' (Reiber & McLaughlin, 2004, p. 2), that classrooms be organised themselves - with the use of routines, lists and clear guidelines? That teachers and parents work collaboratively and share knowledge, understanding and ideas? It is telling that in Queensland, departmental literature outlining inclusive practices in schools points



out that, 'not all strategies that work effectively for the majority of students work for students with learning difficulties and learning disabilities' (*Appraisal Intervention*, 2001, p. 5). As such, Education Queensland recommends that teachers make 'adaptations and modifications to the teaching strategies, resources and classroom learning environment', because 'strategies that support students with learning difficulties and learning disabilities usually support **all** students' (emphasis added, *Appraisal Intervention*, 2001, p. 5). Somehow though, "support" becomes rearticulated into "management" when particular kinds of children display particular kinds of behaviour (Graham, 2006a). However, such "management" strategies can play out in classrooms in exclusionary and repressive ways.

For example, a keyword search using the terms "behaviour", "behaviour disorder" and "behaviour management" nets a number of links on the Education Queensland website. One of these is a short article posted by a teacher outlining tips for successful classroom management (Hodges, 1990). Whilst the teacher experiences difficulty with at least six children in her class, this article is a case study of "Billy" - a six year old boy whom the teacher describes as having 'severe behavioural problems and some damage as a result of reported abuse' (Hodges, 1990, p. 1). These problematic behaviours are not described further, nor what adjustments (if any) to pedagogy, curriculum or environment via changes to the teaching program have been attempted. Instead, the author/teacher states that she 'tried the usual disciplinary actions but without success' (Hodges, 1990, p. 1).

Disturbingly, this article features a pejorative undercurrent - the language is autocratic and judgemental. In addition, the child is overtly stigmatised and objectified with no apparent concern by the author. First, she describes "Billy" as 'very aggressive verbally and physically [with]... very few learning or social skills' (Hodges, 1990, p. 1). She then states flatly, 'His mother was informed that a specific program was to be implemented' (p. 1). This is highly problematic for obvious reasons. Here, the teacher is operating in isolation with none of the collaborative or communicative action recommended by Stormont-Spurgin and others (Burcham et al., 1993), including the teacher's own Department of Education.<sup>iv</sup> By "informing", rather than "consulting with" the parent, the teacher fails to gain valuable insights from the child's mother. Unfortunately, it appears the "reported abuse" may have influenced the teacher's attitude towards the parent, ultimately usurping parental authority and quashing the mother's ability to advocate for her child.

The behaviour modification regimen described in this article, *TIPS: Case study in classroom management*, is exclusionary and draws heavily on the principles of cognitive-behaviourist psychology. Two "Billy" targets are set: (1) hand up to speak and (2) sit in seat. The consonance between these targets, the demands of traditional schooling and the *DSM-IV* criteria for ADHD, indicates the importance still afforded to silent seat-work in schools, despite the so-called incursion of constructivism and active learning environments (DEST, 2005a, 2005b, 2005c). Nowhere in the article does the teacher reflect that the child is only six years old and that this would be his first introduction to formal schooling.<sup>v</sup> Therefore, putting his hand up to speak and sitting in a seat at a desk would be new experiences for him. Nor does it appear to be considered that a token economy may first, be too sophisticated for a child of this age and second, that there are problems associated with self-management and cognitive training strategies (Abramowitz & O'Leary, 1991; Reiber & McLaughlin, 2004). Nor is there any acknowledgment that early childhood education philosophy advocates active learning and investigative play over seat work and that this may be a more appropriate teaching methodology in a class where at least six young children are experiencing difficulty.

The techniques recommended by Hodges include sending "Billy" to sit in a circle on the floor away from the class for 1-2 minutes, then returning upon telling his teacher the target behaviour. After going to the circle three times (no stipulation is made about time duration; i.e. three times in an hour or three times in an entire day), "Billy" would be sent to the office for timeout. The time spent in timeout was to be made up during lunch or after school, further reducing opportunities for the child to expend energy in play and social interaction. The author also recommends a reward system with tally marks on the blackboard each day, however, this is a stigmatising practice as the visual reminders make young children very aware of who the "bad" and "good" kids are. In addition, "Billy" was given an individual reward sheet upon which were marked either ticks or crosses depending upon his compliance with the target behaviours. The teacher states that 'later "Billy" could place his own tick or cross... [and] showed a definite modification in behaviour and most importantly was answerable to his actions' (Hodges, 1990, p. 2).

The presence here of psychological notions relating to self-regulation through practices of the self (Foucault, 1978) function to absolve the teacher of responsibility, placing it entirely upon the six year old child instead. Non-compliant behaviour, the kind investigated by ADHD diagnostic questionnaires such as the Connor's Teacher Rating Scale or the Behaviour Rating Inventory of Executive Function (BRIEF), is perceived purely as "deviance" emanating from within the aberrant child from a questionable family (Slee, 1995). Problematically, at no time does this teacher consider, despite having '5 other children with behaviour problems' (Hodges, 1990, p. 1) in her class, that the problem could have anything to do with her choice of pedagogy, interpretation of curricula or ability to engage her students in learning. Nor it appears, is she required to question what structural, pedagogical or environmental factors may be influencing the behaviour of the children in her class.

## Conclusion

It appears that the residual notion of "a mainstream" means that teachers and schools can stick to one-size-fits-all approaches, deviating only slightly when met by "deviance". However conveniently, "deviance" remains the domain of the human sciences and the structural arrangements of traditional schooling encourages teachers to siphon off their "problematic" students to the "experts" of abnormality; guidance officers, withdrawal-mode behaviour modification programs, alternative-site placement centres, psychologists, doctors, paediatricians and psychiatrists. In this way, Attention Deficit Hyperactivity Disorder acts as an escape clause for schools and teachers – a means to maintain what Slee calls "institutional equilibrium" (Slee, 2000). This problem is compounded when the majority of educational literature engaging with the concept of ADHD, does so in a way that reinforces normative notions of mainstream, general or traditional schooling.

Despite paying lip service to the 'era of inclusive education' (Stormont-Spurgin, 1997, p. 270), this is *not* inclusive. In this guise, "inclusive schooling" is subsumed within what Slee (1996, p. 3) calls the 'rearticulation of special education', where the 'voice of inclusion [becomes] an act of special education ventriloquism' (Slee, 2001, p. 395). Through a discursive sleight of hand, inclusive education 'fails to move beyond technical adjustments to the form of schooling' and thus, fails to achieve equity and justice for kids in schools. In response Slee (1996, p.6) argues, as do I, that 'the political economy of schooling reveals considerable institutional and cultural impairment in need of remedial intervention' and points towards the controlling 'grasp of the resources equations' (p. 7) as a mediating factor. The influence that these equations bring to bear upon the pathologisation of children needs further interrogation (see Graham, 2006a), especially what influence such arrangements may have upon teacher decisions to refer children for assessment. Could it be that

the chronic under-funding of schools and bureaucratic red-tape tying resources and classroom support for underpaid and overworked teachers to disability category criteria is influencing how teachers describe and refer the children in their classes? In the end, perhaps the most important breakthrough with regards to researching the "ADHD" phenomenon is that the notion may actually help to elucidate the pathologies within schooling; highlighting schools and systems that subscribe to the notion of being inclusive, yet in reality engage in practices that are anything but.

### **References:**

- Abramowitz, A. J., & O'Leary, S. G. (1991) Behavioural Interventions for the Classroom: Implications for Students with ADHD, *School Psychology Review*, 20:2, 1-15.
- ABS. (2000). *Australian Social Trends*. Canberra: Australian Bureau of Statistics.
- APA. (1994) *Diagnostic and Statistical Manual of Mental Disorders* (4th ed.). (Washington, DC, American Psychiatric Association).
- Appraisalment Intervention: Literacy and Numeracy*. (2001). Accessed 2004, Available from [www.education.qld.gov.au](http://www.education.qld.gov.au)
- Armstrong, T. (1996) ADD: Does It Really Exist?, *Phi Delta Kappan*, 77:6, 424-428.
- Atkinson, I., & Shute, R. (1999) Managing ADHD: Issues in developing multidisciplinary guidelines, *Australian Journal of Guidance & Counselling*, 9:2, 119-127.
- Augustine, L. E., & Damico, J. S. (1995) Attention Deficit Hyperactivity Disorder: The Scope of the Problem, *Seminars in Speech and Language*, 16:4, 242-257.
- Australian Social Trends*. (2000). Canberra: Australian Bureau of Statistics.
- Barkley, R. A. (1997) *AD/HD and the Nature of Self Control*. (New York, Guilford).
- Bradshaw, K. (1998) The Integration of Children with Behaviour Disorders: A Longitudinal Study, *Australasian Journal of Special Education*, 21:2, 115-123.
- Burcham, B., Carlson, L., & Milich, R. (1993) Promising School-Based Practices for Students with Attention Deficit Disorder, *Exceptional Children*, 60:2, 174-180.
- Calhoun, G. J., Greenwell-Iorillo, E., & Chung, S. (1997) Attention-Deficit Hyperactivity Disorder: Mountain or a Mole-Hill?, *Education*, 118:2, 244-252.
- Cantwell, D. P., & Baker, L. (1991) Association Between Attention Deficit-Hyperactivity Disorder and Learning Disorders, *Journal of Learning Disabilities*, 24:2, 88-95.
- Christian, J. M. (1997) The Body as a Site of Reproduction and Resistance: Attention Deficit Hyperactivity Disorder and the Classroom, *Interchange*, 28:1, 31-43.
- Conrad, P. (1975) The Discovery of Hyperkinesis: Notes on the Medicalization of Deviance, *Social Problems*, 23:1, 12-21.
- Conrad, P., & Potter, D. (2000) From Hyperactive Children to ADHD Adults: Observations on the Expansion of Medical Categories, *Social Problems*, 47:4, 559-582.
- Cooper, P. (2001) Understanding AD/HD: A Brief Critical Review of Literature, *Children & Society*, 15, 387-395.

- Crowe, M. (2000) Constructing normality: a discourse analysis of the DSM-IV, *Journal of Psychiatric and Mental Health Nursing*, 7, 69-77.
- Dalley, H. (Writer) (2000). Attention Deficit Disorder [Television]. In P. Steindl (Producer), *Cover Stories*. Australia: Channel 9.
- Damico, J. S., & Augustine, L. E. (1995) Social Considerations in the Labeling of Students as Attention Deficit Hyperactivity Disordered, *Seminars in Speech and Language*, 16:4, 259-273.
- Danforth, S., & Navarro, V. (2001) Hypertalk: sampling the social construction of ADHD in everyday language, *Anthropology and Education Quarterly*, 32:2, 167-187.
- Danforth, S., & Navarro, V. (2004) A Case Study of ADHD Diagnosis in Middle School: Perspectives and Discourses, *Ethical Human Social Sciences*, 6:2.
- Davis, E., Beer, J., Gligora, C., & Thorn, A. (2001) Accounting for Change in Disability and Severe Restriction, 1981-1998, in: *Working Papers in Social and Labour Statistics (No.2001/1)*. (Belconnen, ACT, Australian Bureau of Statistics).
- Dengate, S. (1994) *Different Kids: growing up with Attention Deficit Disorder*. (Sydney, Random House).
- DEST. (2005a, 15 December 2005). *National Inquiry into the Teaching of Literacy*, Available from [www.dest.gov.au/nitl/](http://www.dest.gov.au/nitl/)
- DEST. (2005b). *Teaching Reading. Literature Review: A review of the evidence-based research literature on approaches to the teaching of literacy, particularly those that are effective in assisting students with reading difficulties*. Canberra: Department of Education, Science and Training, Commonwealth Government of Australia.
- DEST. (2005c). *Teaching Reading. Report and Recommendations*. Canberra: Department of Education, Science and Training, Commonwealth Government of Australia.
- DuPaul, G. J., McGoey, K. E., Eckert, T., L., & VanBrakle, J. (2001) Preschool Children with Attention-Deficit/Hyperactivity Disorder: Impairments in Behavioural, Social and School Functioning, *Journal of the American Academy of Child and Adolescent Psychiatry*, 40:5, 508-515.
- Fields, B. A. (2000) School Discipline: Is there a crisis in our schools?, *Australian Journal of Social Issues*, 35:1, 73-87.
- Fiore, T. S., Becker, E. A., & Nero, R. C. (1993) Educational Interventions for Students with Attention Deficit Disorder, *Exceptional Children*, 60:2, 163-173.
- Forness, S. R., & Kavale, K. A. (2001) ADHD and a Return to the Medical Model of Special Education, *Education and Treatment of Children*, 24:3, 224-247.
- Foucault, M. (1978) *The history of sexuality: An introduction* (R. Hurley, Trans. Vol. 1). (New York, Vintage Books).
- Fynes-Clinton, J. (2005). Friend of the family. *The Courier Mail*, p. 13.
- Gaviria, M. (Writer) (2001). Medicating Kids [Television]. In M. Gaviria & M. Smith (Producer), *Frontline*. USA: PBS Online.
- Gifford Sawyer, M., Rey, J. M., Arney, F., Whitham, J., Clark, J., & Baghurst, P. (2004) Use of Health and School-Based Services in Australia by Young People with Attention-Deficit/Hyperactivity

- Disorder, *Journal of the American Academy of Child and Adolescent Psychiatry*, 43:11, 1355-1363.
- Glass, C. S., & Weigar, K. (2000) Teacher Perceptions of the Incidence and Management of Attention Deficit Hyperactivity Disorder, *Education*, 121:2, 412-420.
- Goldman, L. S., Genel, M., Bezman, R. J., & Slanetz, P. J. (1998) Diagnosis and treatment of attention-deficit hyperactivity disorder in children and adolescents, *Journal of American Medical Association*, 279:1100-1107.
- Graham, L. (2006a) Caught in the Net: A Foucaultian interrogation of the incidental effects of limited notions of "inclusion", *International Journal of Inclusive Education*, 10:1, 3-24.
- Graham, L. (2006b) Done in by discourse... or the problem/s with labelling, in: M. Keeffe & S. Carrington (Eds.), *Schools and Diversity*. (Sydney, Pearson Education).
- Graham, L., & Slee, R. (2006a) An Illusory Interiority: interrogating the discourse/s of inclusion, *Educational Philosophy and Theory*, in press.
- Graham, L. J. (2005). *(Re)Visioning the Centre: QSE-2010 and the quest for the cosmopolitan child*. Paper presented at the Philosophy in Education Society of Australasia (PESA) Annual Conference, Hong Kong.
- Graham, L. J., & Slee, R. (2006b). *Inclusion?* Paper presented at the American Educational Research Association (AERA) 2006 Annual Conference, April 6-11, San Francisco.
- Green, C., & Chee, K. (1997) *Understanding ADHD: Attention Deficit Hyperactivity Disorder*. (Sydney, Doubleday).
- Grieshaber, S. (1997) Back to Basics: The Queensland Year 2 Diagnostic Net, *Curriculum Perspectives*, 17:3, 28-38.
- Harwood, V. (2006) *Diagnosing 'Disorderly' Children: A critique of behaviour disorder discourses*. (Oxon, Routledge).
- Hechtman, L., Abikoff, H., Klein, R. G., Weiss, G., Resnitz, C., Kouri, J., et al. (2004) Academic Achievement and Emotional Status of Children with ADHD Treated with Long-Term Methylphenidate and Multimodal Psychosocial Treatment, *Journal of the American Academy of Child and Adolescent Psychiatry*, 43:7, 812-819.
- Heydon, R., & Iannicci, L. (2002) Biomedical Approaches to Literacy: two curriculum teachers challenge the treatment of dis/ability in contemporary early literacy education, *Language and Literacy*, 7:2.
- Hocutt, A. M., McKinney, J. D., & Montague, M. (1993) Issues in the Education of Students with Attention Deficit Disorder: Introduction to the Special Issue, *Exceptional Children*, 60:2, 103-106.
- Hodges, B. (1990). *TIPS: Case study in classroom management*. Retrieved 18th July, 2004, Available from <http://education.qld.gov.au/tal/tips/00537.htm>
- Holmes, L. (2004, March 28th). *Underactive Area of Brain Implicated in Children with ADHD*. Retrieved 9th June 2004, 2004, Available from <http://mentalhealth.about.com/library/archives/0300/blmriadd300.htm>

- Hynd, G. W., & Voeller, K. K. (1991) Neurobiological basis of Attention-Deficit Hyperactivity Disorder (ADHD), *School Psychology Review*, 20:2, 1-14.
- Johnston, C. (1996) Parent characteristics and parent-child interactions in families of nonproblem children and ADHD children with higher and lower levels of oppositional-defiant behaviour, *Journal of Abnormal Child Psychology*, 24:1, 85-98.
- Kos, J. M., & Richdale, A. L. (2004) The History of Attention-Deficit/Hyperactivity Disorder, *Australian Journal of Learning Disabilities*, 9:1, 22-24.
- Laurence, J., & McCallum, D. (1998) The Myth-or-Reality of Attention-Deficit-Disorder: A Genealogical Approach, *Discourse: studies in the cultural politics of education*, 19:2, 183-200.
- Levine, J. E. (1997) Re-Visioning Attention Deficit Hyperactivity Disorder (ADHD), *Clinical Social Work Journal*, 25:2, 197-209.
- Levy, F. (2001) Implications for Australia of the Multimodal Treatment Study of Children with Attention-Deficit/Hyperactivity Disorder, *Australian and New Zealand Journal of Psychiatry*, 35, 45-48.
- Levy, F., Hay, D. A., McStephen, M., Wood, C., & Waldman, I. (1997) Attention-deficit hyperactivity disorder: a category or a continuum? Genetic analysis of a large-scale twin study, *Journal of the American Academy of Child and Adolescent Psychiatry*, 36:6, 737-744.
- Lloyd, G., & Norris, C. (1999) Including ADHD?, *Disability and Society*, 14:4, pp. 505-517.
- Mackey, P., & Koprass, A. (2001). *Medication for Attention Deficit Hyperactivity Disorder (ADHD): an Analysis by Federal Electorate* (Inquiry analysis No. No. 11. 2000-01). Canberra: Federal Parliament.
- McBurnett, K., Lahey, B. B., & Pfiffner, L. J. (1993) Diagnosis of Attention Deficit Disorders in DSM-IV: Scientific Basis and Implications for Education, *Exceptional Children*, 60:2, 108-117.
- McDermott, J. F. (2004) Evolution of a Journal: Outing Some Ghosts from the Closet, *Journal of the American Academy of Child and Adolescent Psychiatry*, 43:6, 650-659.
- Mehan, H. (1996) The construction of an LD student: a case study in the politics of representation, in: M. Silverstein & G. Urban (Eds.), *Natural Histories of Discourse* (pp. 345-363). (Chicago, University of Chicago Press).
- Miranda, K. (2005). *New drugs subsidised on the PBS*. Retrieved 27th February 2006, 2006, Available from <http://www.health.gov.au/internet/ministers/publishing.nsf/Content/health-mediarel-yr2005-ta-abb093.htm?OpenDocument&yr=2005&mth=8>
- Mitchell, N. (Writer) (2004). Attention Deficit Hyperactivity Disorder (ADHD) - Debate hots up in Western Australia [Radio]. In J. Carleton & N. Mitchell (Producer), *All in the Mind: 19 June 2004*. Australia: ABC Radio National.
- Morgan, C., & Moses, A. (2002, December 16). Barbie sharpens her image in catfight with the Bratz. *The Sydney Morning Herald*, p. Available from <http://www.smh.com.au/articles/2002/2012/2016/1039656300927.html>.
- National Institute of Mental Health, US Department of Health and Human Services. (1994, 2003 rev.). Retrieved July 6th, 2004, Available from [www.nimh.nih.gov/Publicat/ADHD.cfm](http://www.nimh.nih.gov/Publicat/ADHD.cfm)
- Neophytou, K. (2004). *ADHD, a social construct?* Unpublished Master of Social Science (by research), Australian Catholic University, Melbourne.

- Norris, C., & Lloyd, G. (2000) Parents, professionals and ADHD: what the papers say, *European Journal of Special Needs Education*, 15:2, 123-137.
- NSW Association for Gifted & Talented Children Inc. (2006). Retrieved 27th February 2006, 2006, Available from <http://www.nswagtc.org.au/>
- Ollendick, T. H., & Hersen, M. (1998) *Handbook of Child Psychopathology* (3rd ed.). (New York, London, Plenum Press).
- Panksepp, J. (1998) Attention Deficit Hyperactivity Disorders, Psychostimulants, and Intolerance of Childhood Playfulness: A Tragedy in the Making?, *Current Directions in Psychological Science*, 7:3, 91-98.
- Pellegrini, A. D., & Horvat, M. (1995) A Developmental Contextualist Critique of Attention Deficit Hyperactivity Disorder, *Educational Researcher*, 24:1, 13-19.
- Powell, P., & Inglis-Powell, B. (1999) *Raising Difficult Children: Realistic Behaviour Management for Difficult Children including those with Attention Deficit/Hyperactivity Disorder* (3rd ed.). (North Parramatta, Gouldian Press).
- Prosser, B., & Reid, R. (1999) Psychostimulant Use for children with Attention Deficit Hyperactivity Disorder in Australia, *Journal of Emotional and Behavioral Disorders*, 7, 110-117.
- Prosser, B., Reid, R., Shute, R., & Atkinson, I. (2002) Attention Deficit Hyperactivity Disorder: Special education policy and practice in Australia, *Australian Journal of Education*, 46:1, 65-78.
- Purdie, N., Hattie, J., & Carroll, A. (2002) A Review of the Research on Interventions for Attention Deficit Hyperactivity Disorder: What Works Best?, *Review of Educational Research*, 72:1, 61-99.
- Reiber, C., & McLaughlin, T. F. (2004) Classroom Interventions: Methods to improve academic performance and classroom behaviour for students with Attention Deficit/Hyperactivity Disorder, *International Journal of Special Education*, 19:1, 1-13.
- Reid, R., Maag, J. W., & Vasa, S. F. (1993) Attention Deficit Hyperactivity Disorder as a Disability Category: A Critique, *Exceptional Children*, 60:3, 198-214.
- Riccio, C. A., & Hynd, G. W. (1993) Developmental Language Disorders in Children: Relationship with Learning Disability and Attention Deficit Hyperactivity Disorder, *School Psychology Review*, 22:4, 1-14.
- Riccio, C. A., Hynd, G. W., Cohen, M. J., & Gonzalez, J. J. (1993) Neurological Basis of Attention Deficit Hyperactivity Disorder, *Exceptional Children*, 60:2, 118-124.
- Rich, F. (2002, December 18). Is Eminem the new Elvis? *The Sydney Morning Herald*, p. Available from <http://www.smh.com.au/articles/2002/2012/2017/1039656387263.html>.
- Sava, F. A. (2000) Is Attention Deficit Hyperactivity Disorder an exonerating construct? Strategies for school inclusion, *European Journal of Special Needs Education*, 15:2, 149-157.
- Sax, L., & Kautz, K. J. (2003) Who First Suggests the Diagnosis of Attention-Deficit/Hyperactivity Disorder?, *Annals of Family Medicine*, 1:3, 171-174.
- Selikowitz, M. (1995) *All about ADD: Understanding Attention Deficit Disorder*. (Melbourne, Oxford University Press, Australia).

- Shanahan, A. (2004, 30th May 2004). Jumping on the victim bandwagon. *The Sunday Telegraph*, p. 4.
- Slee, R. (1994) Finding a Student Voice in School Reform: student disaffection, pathologies of disruption and educational control, *International Studies in Sociology of Education*, 4:2, 147-172.
- Slee, R. (1995) *Changing Theories and Practices of Discipline*. (London, The Falmer Press).
- Slee, R. (1996) Inclusive Schooling in Australia? Not Yet!, *Cambridge Journal of Education*, 26:1, 19-33.
- Slee, R. (2000). *Keynote address: Talking Back to Power: The Politics of Educational Exclusion*. Paper presented at the International Special Education Congress: Including the Excluded, University of Manchester, 24th - 28th July 2000.
- Slee, R. (2001) Driven to the Margins: disabled students, inclusive schooling and the politics of possibility, *Cambridge Journal of Education*, 31:3, 385-397.
- Smelter, R. W., Rasch, B. W., Fleming, J., Nazos, P., & Baranowski, S. (1996) Is Attention Deficit Disorder Becoming A Desired Diagnosis?, *Phi Delta Kappan*, 77:6, 429-432.
- Stormont-Spurgin, M. (1997) I lost my homework: Strategies for Improving Organization in Students with ADHD, *Intervention in School and Clinic*, 32:5, 270-274.
- Swan, N. (Writer) (2000). Radio National: The Health Report with Norman Swan, *Attention Deficit Hyperactivity Disorder (ADHD)*. Australia: Australian Broadcasting Corporation.
- Swanson, J. M., McBurnett, K., Wigal, T., Pfiffner, L. J., Lerner, M. A., Williams, L., et al. (1993) Effect of Stimulant Medication on Children with Attention Deficit Disorder: A "Review of Reviews", *Exceptional Children*, 60:2, 154-162.
- Tait, G. (2001) Pathologising Difference, Governing Personality, *Asia-Pacific Journal of Teacher Education*, 29:1, 93-102.
- Tannock, R. (1998) Attention Deficit Hyperactivity Disorder: Advances in Cognitive, Neurobiological, and Genetic Research, *Journal of Child Psychology and Psychiatry*, 39:1, 65-99.
- Teeter, P. A. (1991) Attention Deficit Hyperactivity Disorder: A Psychoeducational Paradigm, *School Psychology Review*, 20:2, 1-17.
- Thomas, G., & Glenny, G. (2000) Emotional and Behavioural Difficulties: bogus needs in a false category, *Discourse: studies in the cultural politics of education*, 21:3, 283-298.
- Tyson, K. B. (1988). *The History of Scientific Explanations for Childhood Hyperactivity*. Unpublished PhD Dissertation, The University of Chicago, Chicago.
- Wakefield, J. C. (1992) The Concept of Mental Disorder: On the Boundary Between Biological Facts and Social Values, *American Psychologist*, 47:3, 373-388.
- Walker, K. (2004). Pandora's box of ills. *The Courier Mail*, p. 14.
- Wallace, I. (1999) *You and Your ADD Child: Practical Strategies for Coping with Everyday Problems*. (Sydney, HarperCollins).



Whalen, C. K., & Henker, B. (1998) Attention-Deficit/Hyperactivity Disorders, in: H. O. Thomas & M. Hersen (Eds.), *Handbook of Child Psychopathology* (Third Edition ed.). (New York, Plenum Press).

Wolraich, M. L., Lambert, E. W., Baumgaertel, A., Garcia-Tornel, S., Feurer, I. D., Bickman, L., et al. (2003) Teachers' Screening for Attention Deficit/Hyperactivity Disorder: Comparing Multinational Samples on Teacher Ratings of ADHD, *Journal of Abnormal Child Psychology*, 31:4, 445-455.

Zentall, S. S. (1993) Research on the Educational Implications of Attention Deficit Hyperactivity Disorder, *Exceptional Children*, 60:2, 143-153.

---

<sup>i</sup> Adderall is not available in Australia.

<sup>ii</sup> One major flaw in the research that looks to comparative studies of psychological therapy + medication versus medication alone is that comparison of effectiveness against educational intervention alone is rarely done.

<sup>iii</sup> For a discussion of the effects of psychological discourse in education policy, school management documents and media releases, see (Graham, 2005).

<sup>iv</sup> The date of the article by Hodges is 1990, which admittedly is prior to the institution of inclusive education reforms in the late 1990s by Education Queensland. However, if the article contents run counter to EQ policy then one would assume it would have been removed and not made available as a teaching resource?

<sup>v</sup> Prior to the introduction of the preparatory year in 2007, in Queensland children begin Grade 1 the year they turn six years old. To date, Grade 1 has been the first formal schooling year in Queensland. Preschool has been offered on a five day per fortnight basis. The institution of the prep year is intended to better transition young children into the formal demands of schooling.