

# ADHD PERSPECTIVES: MEDICALIZATION AND ADHD CONNECTIVITY

Gloria Sunnie Wright  
*The University of Sydney*

## Abstract

Today's 'ADHDscape' is no longer confined to images of fidgety children falling off classroom chairs. Trans-generational images flood popular culture, from 'ADHD creator' with entrepreneurial style, to 'ADHD troublemaker'. Indeed, ADHD's enigmatic characteristics seem to apply as much to crying babies as to forgetful grannies. With the recent expansion of ADHD definitions (Conrad, 2007), the key question to pose is this: *how* and in what *ways* is ADHD 'understood'? By drawing on the association between 'ADHD' as a mental disorder and 'medicalization' as a social phenomenon, and in the interactionist tradition utilized in Peter Conrad's sociological analysis of ADHD, this paper presents aspects of the complex nature of ADHD through a description of contrasting perspectives.

## INTRODUCTION

While the topics of Attention Deficit Hyperactivity Disorder (ADHD) and 'medicalization' are separate entities, connectivity occurs through the social constructionist position first explored by Peter Conrad (1976). In his seminal work on the medicalization of behaviour in children diagnosed as having ADHD, Conrad's introduction of the term 'medicalization' (1976) highlighted the emergence of a contrasting view about ADHD 'understandings'. Even so, medical interpretations of human troubles not only continue to dominate 'ADHD literature', but increased medico-complexities presenting ADHD 'realities' as hard science, can be seen as blurring the ADHD vista. Despite the risk of oversimplification, this paper presents a range of ADHD perspectives, including social constructionist standpoints, to highlight the notion that ADHD can and indeed *is* 'seen' through contrasting lenses. Further, mounting ADHD -'medicalization' connectivity is highlighted.

### *Introducing Medicalization*

'Medicalization', a term which emerged in the 1970's through the work of Conrad (Conrad, 1975), refers to the phenomenon whereby nonmedical problems are identified and then redefined and treated as illnesses and/or disorders. Before this, notions of medicalization were already conceptually underway by sociologists interested in theorizing *social control*. Today, the term 'medicalization' is seen as multidimensional in both meaning and scope, encompassing increasing applications to understandings of the human condition (Ballard, 2005).

Underpinned by influential works such as the writings of Durkheim, who directed attention towards the role of social institutions (namely family and religion) in constraining individuals' self-directed tendencies, various schools of thought emerged<sup>1</sup>. These include a move to define deviance in terms of illness (Parsons, 1951), and assertions that social reactions to behaviour constituted constructions of deviance (Scheff, 1966); the theoretical development of psychiatric social control (Szasz, 1963, 1974); medical institutional control of illness and madness (Foucault, 1965b, 1973) and medicine as an institution of social control (Zola, 1972); exposition of identity transformation, labelling and stigmatization in the 'career' of the mental patient (Goffman, 1962); and, the medicalization of life in its entirety (Illich, 1975).

---

<sup>1</sup> These ideas were not necessarily attached to Durkheimian thought. A comprehensive analysis of the emergence of social control is found in Jesse Pitts' (1968) exposition.

Following Conrad's seminal work and ensuing publications, he, with Schneider, published the influential book *Deviance and medicalization: from badness to sickness* (1980). Since then, there has been interest across an array of topics. Some examples of this include female menopause (Lowy & Gaudilliere, 2006; Meyer, 2003) and male menopause (Marshall, 2007; Watkins, 2007); male sexual performance (Rosen, 1996) and women's sexual libido (Gracia-Arnaiz, 2007); body image (Monaghan, 2007) and eating issues (Gracia-Arnaiz, 2007); alcohol consumption (Lunbeck & Tracy, 2007); shopping behaviour (Lee & Mysyk, 2004); gambling (Rossol, 2001); social behaviour (Conrad & Potter, 2000); sleeping (Armstrong, Previtera, & McCallum, 2000; Williams, 2002b); conception (Heitman, 1999) and childbirth (Fox & Worts, 1999); of ageing (Kaufman, 1994) and dying (McCue, 1995) and of life itself (Hartley, 2009). Indeed, it seems that little remains 'immune' from being interpreted through a medicalizing lens, for even 'life in cyberspace' is today viewed through a medicalized lens (McMillan, 2009).

To add to the complex nature of interpreting disease and illness, 'medicalization' of particular "disorders" is itself not static. Some 'conditions' are 'demedicalized' and then 'remedicalized' (Conrad, 2007). For example, homosexuality, once believed to be an illness, and then a lifestyle right, is now once again viewed medically through psychobiological portrayals of the "gay gene" (Annicchiarico, 2009; Conrad & Markens, 2001; Mustanski, et al., 2005). Moreover, the term 'medicalization', more recently, has been 'replaced' by the emerging term 'biomedicalization', a term associated with:

The greater use of techno science in biomedical treatments, practices and health to produce transformations of identities, bodies and life itself (Clarke, 2009).

While numerous examples of the infusion of medical technology in what may have once been considered 'private' or 'commonplace' may be cited, there is perhaps no more poignant example than that of human conception and ante-natal development itself. The once mysterious place of the womb is, it seems, becoming 'ever marketable', 'ever virtual' and 'ever available' as the following example of an online advertisement suggests:

Bundles Baby Ultrasound allows mothers-to-be, family and friends to see an unborn baby's expressions such as smiling and yawning on a large plasma screen using the latest 3D/4D ultrasound technology from just \$150... with unlimited downloads of your images to share in other locations around the world (Bundles Baby Ultrasound, 2009).

The merging of medical technology and 'mothering', captured here by the image of a foetus, implicitly epitomizing bodily perfection, engaging in the social symbol of approval, 'a smile', exemplifies more than semantic difference. Perhaps 'medicalization' as a term is becoming inadequate in accommodating the enormity of the porous nature of medical-technological, political-economic and socio-cultural boundaries confronting sociologists today.

### *Introducing ADHD*

Notions of ADHD are as varied as they are contentious. Even so, biochemical and neurological explanations characterizing ADHD as a psychiatrically derived 'disorder' continue to dominate academic publications and media representations alike (Coghill, 2005). Despite this, there is mounting disquiet surrounding ADHD 'realities', rendering it a topic which some describe as "divisive" (Hildebrand, 2007).

While this paper lays no claim to espousing or refuting the 'truth' of 'ADHD', its 'presence', viewed socially and/or medically, cannot be denied. Indeed, the term itself is detected in numerous mediums. From the world's largest medical library, the National Library of Medicine (2009) to on-line medication data bases in 'the cloud'<sup>2</sup>, and from popular magazines in supermarkets, to books in my local bookstore (which stocks no less than eighteen books of various kinds including *A kid friendly ADHD and autism cookbook* (Compart & Laake, 2009), ADHD takes its place.

It is, however, ADHD's listing in the *Diagnostic and Statistical Manual of Psychiatric Disorders*, now in its fourth revision and soon to be fifth (American Psychiatric Association, 2000) and the more limited ICD-10 (World Health Organization, 1993)<sup>3</sup>, which is of particular significance. Although there are no definitive pathological 'tests' to determine the nature or presence of ADHD (Kupfer, Baltimore, & Berry, 2000; Rubinstein, Scrimshaw, & Morrissey, 2000), ADHD's medical 'reality' is nonetheless therein endorsed and subsequently formally recognized by the powerful institutions of education and law. Therefore, without ADHD being 'legally' ratified in sources such as these, the process of medicalization would be impotent.

Arguably, ADHD's 'absoluteness' is further solidified, if only by association, through various strands of medicine. Some medically oriented research cites, for example, genetic causation (Cooke et al. 1995; Waldman et al. 1998). Others seek to 'prove' ADHD with neuro-imaging and biomedical techniques (Barkley, Cook, & Diamond, 2002; Castellanos & Tannock, 2002; Faraone & Biederman, 2000). Being neither well defined, reliable nor replicable (Aronson, 2007; Cohen & Leo, 2004; Furman, 2008; Pittelli, 2002), none thus far, even with the benefit of 'techno-tools' (Philips, 2010), have succeeded in absolutely pinpointing ADHD. This may explain why poorly correlating teacher-parent checklists (Furman, 2008; Rubinstein, et al., 2000) and parent managed "trials" of medication, spurious though they may be, remain the more common form of 'evidence-based' "evidence" of enigmatic ADHD.

Although few, some noteworthy investigations of ADHD, from a sociological perspective, have been undertaken since Peter Conrad's original study (Conrad, 1976). These include, for example, Claudia Malacrida's comparative study of mothers' reactions to ADHD (2004) and Adam Rafalovich's study which culminated in his book *Framing ADHD children: A Critical Examination of the History, Discourse and Everyday Experience of Attention Deficit/ Hyperactivity Disorder* (2004). Other studies have been conducted in Australia, which include Brenton Prosser's two book publications (2006a, 2006b), and Linda Graham's (2007) series of papers focusing on schools and ADHD using a Foucauldian framework.

The issues raised by these contrasting approaches to the sociology of ADHD are far from exhausted or resolved, especially in understanding the social processes at work in 'becoming ADHD'. This aside, returning to the notion of 'ADHD' as a mental disorder, and 'medicalization' as a social phenomenon, the connectivity achieved in Conrad's sociological analysis of ADHD, though not without its critics (Whalen & Henker, 1977), stands as one of the few outstanding studies using a 'medicalizing' perspective. Although research studies in this vein remain sparse, there is evidence of renewed interest in viewing ADHD as an example of medicalization<sup>4</sup>, with a growing presence emphasis within popular culture. A search using the terms 'medicalization' using the term 'ADHD' separately and then, in combination, shown in Tables 1 and 2, demonstrate this trend.

*Table 1 A comparison of searches on the terms 'medicalization' and 'ADHD'*

Note: Each term is applied independently.

For ease of comparison, the term 'medicalization', (including the terms medicalize, medicalization (spelled also with "s")) is printed in black and 'ADHD' (including the terms attention deficit hyperactivity disorder; attention deficit; ADD; hyperactive; hyperactivity) is in blue.

#### **Publications before 1970**

Social Science Citation Index	zero	52
Medline	zero	230
Newspaper Articles	zero	zero

**Publications between 1971 and 1980**

Social Science Citation Index		19	629
Medline	34	2,268	
Newspaper Articles		zero	79

**Publications between 1981 and 1990**

Social Science Citation Index		53	1,235
Medline	117	5,001	
Newspaper Articles		90	4,252

**Publications between 1991 and 2000**

Social Science Citation Index		209	5,557
Medline	269	9,062	
Newspaper Articles		2,038	39,945

**Publications between 2001 and January 2008**

Social Science Citation Index		255	7,882
Medline	289	13,170	
Newspaper Articles		5,060	92,251

Note: These figures do not necessarily represent sociological studies

*Table 2 Combined searches on the terms 'medicalization' and 'ADHD'*

Note: In this table, various forms of the words were not used, in order to avoid an unnecessarily complicated set of results

**Publications prior to 1970**

Social Science Citation Index		zero	
Medline		zero	
Newspaper Articles			zero

**Publications between 1971-1980**

Social Science Citation Index		zero	
Medline		zero	
Newspaper Articles			zero

**Publications between 1981 – 1990**

Social Science Citation Index		1	
Medline		1	

Newspaper Articles	1
--------------------	---

---

**Publications between 1991 – 2000**

Social Science Citation Index	4
-------------------------------	---

Medline	3
---------	---

Newspaper Articles	7
--------------------	---

---

**Publications between 2001 and January 2008**

Social Science Citation Index	8
-------------------------------	---

Medline	5
---------	---

Newspaper Articles	238
--------------------	-----

Although, as stated, the results of these searches are limited, they nonetheless suggest some points of interest. Note that Table 1 confirms ADHD's strong representation in medically oriented writing (consistent with its medical roots), well before 'medicalization' appeared. Note also that 'medicalization', though its representation is comparatively small (in keeping with its introduction through the work of Conrad in 1970s, presents with a similar marked increase in the medium of news media. Moreover, in combination, Table 2 suggests a similar pattern. This may reflect growing concerns about medical solutions being applied to children's behaviour in general, or it may relate to ADHD specifically. Either way, examination of the ADHD phenomenon unveils a range of contemporary belief systems that discuss ADHD in a variety of ways.

## ADHD Perspectives

Some critics, such as Breggin (1995, 1998) completely reject the notion of ADHD, believing it to be a scandalous fraud. Cohen (2006), for example, thinks of ADHD and its common form of treatment, Ritalin™, as a marker of the psychiatric colonization of childhood. Others, such as Carey (2002) and Diller (1998), allow for the possibility that such a condition is legitimate, in a descriptive sense, for some children, but that current treatment practices have strongly diminished the value of ADHD's identification. Still others, such as Goodman (1992) and Armstrong, (2006, p. 34) suggest that ADHD is a postmodern condition reflecting what he describes as a "short attention span culture". Social critic, Conrad (2007), directs comment on the legitimacy of ADHD in a biological sense, to examination of the sociological impact of its presence in the broader context of the medicalization of society.

The following outline of ADHD perspectives, therefore, is not intended as definitive, as an exhaustive list of opinions and beliefs about ADHD is no more possible than practical. After all, perspectives of ADHD could be accounted for and sub-divided in numerous ways using differing combinations of non- standardized terminology. As foundational to this study, I introduce two primary standpoints from which ADHD 'meanings' may be discussed. These are the *bio-neurological perspective* (with '*psycho-neurological*' and '*psycho-enviro*' sub-perspectives) and the *social constructionist perspectives*. As the psycho-neurological and psycho-enviro sub- perspectives share the commonality that ADHD is essentially *caused* by a dysfunctional brain, they provide a distinct contrast to the social constructionist position.

Each of these 'grande' perspectives informs the analysis of this study. The *bio-neurological perspective*, being anchored within a medical model of ADHD, is of critical importance, because it suggests the likely standpoint of the doctor participants. Further as the parents (and perhaps teachers)

engage with the doctors in the diagnostic act, it is likely to be instrumental in the enactment of the diagnostic process and the ‘legitimization’ of the ADHD ‘patient’ and therefore may assist in illuminating participants’ views of ADHD as a medical ‘condition’. However, as this study attempts to illuminate *how* medical jurisdiction actually takes hold in the lives of children whose behaviour is judged as troublesome, the psycho-neurological perspective alone may not suffice in informing the social processes at work in ‘becoming ADHD’. Therefore, perusal of a *social constructionist perspective* of ADHD is of equal importance, especially as it resonates with the interactionist approach adopted in this study. Therefore, the arguments presented in this thesis will ultimately draw on both psycho-neurological and social constructionist perspectives of ADHD.

Before interrogating specific perspectives in detail, however, it is important to establish the notion that perspectives influence action. This idea is central to social enquiry. Charon (2007) explains that perspectives comprise a blend of assumptions and moral judgements. These function to ‘texturize’ an individual’s view of the world.

Understanding ‘knowing’, however, is not simple, as philosophers across the centuries have long espoused. Debates about ‘realities’ are far too complex to accommodate in this paper, however Immanuel Kant’s (1724-1804) views of the power of perspectives to illuminate ‘knowing’ ought not be omitted (although admittedly somewhat loosely adapted here). In light of his premise that ‘perspectives’ are windows into *aspects* of reality and, in particular, that ‘hard science’ (akin to the dominant psycho-neurological perspective of ADHD), inculcates the belief that objective truth is attainable, the medical model of ADHD not only seems less robust, but ADHD ‘realities’ are incalculable.

### *Bio-neurological perspective*

The neurological stance towards ADHD forms the central pillar of the dominant medical model. This perspective, in simplistic terms, epitomizes a ‘hard science’ approach to the aetiology of ADHD. Although complicated by competing strands within, it unequivocally adheres to neurological dysfunctionality, purporting technologically enhanced techniques to ‘expose’ ADHD.

The neurological perspective is arguably the most influential perspective of all because it influences policy-making at various levels. It is notable that some earlier neurological studies conducted by Barkley (1991, 1997), for example, have been used to inform definitions and government policy on ADHD.

Those who have challenged this position have encountered strong defence. For example, an excerpt from the International Consensus Statement (2002) found in Barkley’s *‘official ADHD Site’*, demonstrates this point. It reads:

We, the undersigned consortium of international scientists, are deeply concerned about the periodic inaccurate portrayal of attention deficit hyperactivity disorder (ADHD) in media reports. This is a disorder with which we are all very familiar and toward which many of us have dedicated scientific studies if not entire careers. We fear that inaccurate stories rendering ADHD as myth, fraud, or benign condition may cause thousands of sufferers not to seek treatment for their disorder. It also leaves the public with a general sense that this disorder is not valid or real or consists of a rather trivial affliction.

We have created this consensus statement on ADHD as a reference on the status of the scientific findings concerning this disorder, its validity, and its adverse impact on the lives of those diagnosed with the disorder as of this writing. (Barkley, 2006)

Barkley adds further weight to the psycho-neurological position using analogies like “virus...HIV/AIDS” and “smoking...cancer” to emphasise if not alarm his audience. Furthermore, he ‘recruits’ powerful institutional organizations of his persuasion to support his counter attack. He

states<sup>5</sup>:

The views of a handful of non-expert doctors that ADHD does not exist are contrasted against mainstream scientific views that it does, as if both views had equal merit... In fact, there is no such disagreement—at least no more so than there is over whether smoking causes cancer, for example, or whether a virus causes HIV/AIDS. The U.S. Surgeon General, the American Medical Association, the American Psychiatric Association, the American Academy of Child and Adolescent Psychiatry, the American Psychological Association, and the American Academy of Paediatrics, among others, all recognize ADHD as a valid disorder (Barkley, 2006).

While the work of Barkley remains influential<sup>6</sup>, scrutiny of the psycho-neurological viewpoint reveals numerous endeavours to provide reliable empirical evidence of ADHD. Although several strands within this overarching standpoint continue to attract research interest, none have successfully captured ADHD thus far. Despite there being no ‘official’ names or established ‘list’, I briefly describe influential ‘sub-perspectives’ within the broad psycho- neurological scope detailed below.

### *Psycho-neurological perspective*

The psycho-neurological sub perspective of ADHD can be described in terms of a ‘medical model’ in its purist sense. Within this framework, ADHD is commonly constructed as an inheritable disorder of the brain as an organ, which directly affects the behaviour of the person ‘suffering’ from it.

Arguably, the *genetic perspective* of ADHD, which more recently has largely emanated from the mapping of the Human Genome, could be described as yet another sub perspective in its own right infuses several others. However, I concentrate on its role as both the cornerstone of the psycho-neurological perspective and a common thread in various strands within. Although few disagree that no definitive genetic links to ADHD have yet been established (Furman, 2008; Joseph, 2000, 2006)<sup>7</sup>, perceptions of ADHD’s genetic origins persist.

The genetic interpretation of ADHD attempts to specifically locate ADHD genetic coding, as is the case for other mental illness conditions like schizophrenia (Chapman, 1991; Heston, 1970; Orourke, Gottesman, Suarez, Rice, & Reich, 1982; Pedrosa, et al., 2009; Remschmidt & Theisen, 2005)<sup>8 9</sup>. Interestingly, like ADHD, schizophrenia is a similarly contested ‘condition’. Indeed, aside from evidence contradicting genetic causes for people exhibiting ‘symptoms’ of schizophrenia (Tienari et al. 2004) and confusion in alleged comorbidity with other ‘conditions’, such as substance addictions (Dixon, 1999), the actual ‘existence’ of schizophrenia itself is increasingly challenged. Moreover, alternative psychological explanations offered by those experiencing ‘symptoms’ consistent with ‘schizophrenia’ (Hornstein, 2009; Romme et al. 2009) have added to existing concerns about the credibility of the Diagnostic and Statistical Manual (Mosekowitz & Corstens, 2007) in categorizing mental illnesses. Furthermore, schizophrenia’s recent absorption into Psychosis Risk Syndrome in the 5<sup>th</sup> edition of the Diagnostic and Statistical Manual (Ross, 2010) is akin to Conrad and Potter’s (2000) assertions of diagnostic elasticity associated with medicalizing distress in its many and varied forms.

Overlaying popular beliefs of ADHD’s genetic origins, and despite criticisms of it, various biotechnological techniques have emerged. I here describe these, collectively, as the ‘*neuro-transmitter perspective*’. These include scanning techniques, such as positron emission topography (PET), electroencephalogram brain waves (EEG) and functional Magnetic Resonance Imaging (fMRI), each attempting to provide a visual map of ADHD ‘at work’ in an individual’s brain. Findings from several studies utilizing techniques such as these have been strongly criticized on several counts. These include: small sample sizes; heterogeneous and non-comparable control groups; lack of replication;

use of cross-sectional rather than longitudinal data; and the lack of distinction between results that show an association and those that show cause and effect.

One example typifying the failure of techniques such as these is Kovatchev, et al.'s (2001) study of neurotransmitter activity in adolescents diagnosed as having ADHD. The research findings from this study were accused of merely measuring blood flow rather than actual brain activity (Jackson, 2006). Moreover, neurological scientist, Leo and sociologist Cohen (Leo & Cohen, 2003), criticized a review of 30 neuro-imaging studies implicating ADHD's influence on the brain's neural circuitry (Giedd, Blumenthal, Molloy, & Castellanos, 2001), because none of these studies reported on whether the participants were medicated at the time of testing. I now introduce as the *psychostimulant-impact perspective*, which claims that behavioural changes induced by ADHD stimulant medication verify ADHD's existence. Put another way, if the consumption of medication results in behavioural change, then this in itself 'proves' the sufferer to 'be ADHD'. This line has been used, even though it is well known that stimulants cause behavioural changes in animal and human behaviour whether or not there is a prior condition of mental illness<sup>10</sup>.

### *Psycho-enviro perspective*

This position proposes that ADHD is caused by interplay between environmental conditions (social and/or physical) and a 'pre-existing' neurological problem in an individual. The spectrum of possible environmental factors believed to expose or 'activate' ADHD is endless making classification near impossible. Moreover, the reasons why some favour certain circumstances over others are unclear. Interestingly, Rafalovich (2005a), in interviewing clinicians, found that paediatricians and general practitioners tended to approach ADHD from a neurological standpoint whilst clinical psychologists, psychiatrists and family therapists placed more emphasis on taking into account the enviro-social context of the child<sup>11</sup>.

An excellent example of the psycho-enviro perspective is evidenced in the work of medical practitioner and paediatrician turned allergist, Ben Feingold. In his book *Why Your Child is Hyperactive* (1975), certain foods, food additives and food processing techniques associated with the modern fast-food industry are reported to cause an allergic reaction or 'poisoning' which, in turn, is thought to interact with an individual's ADHD predisposition.

Feingold (and those of his persuasion) has played a significant role in destabilising the neurological view<sup>12</sup>. This is borne out by popular Complimentary Alternative Medical (CAM) therapies. Researchers such as Rojas and Chan (2005), for example, although criticized by some as "disease mongering" (2006), argued that 'natural' remedies could be substituted for psychotropic pharmacology to treat ADHD<sup>13</sup>.

Diller (1998) and Furman (2005) typify yet another strand of thinking which implicates family dynamics and traumatic life events as being possible triggers for ADHD. This view is reminiscent of earlier 1920's ideas that connected childhood neurosis with childhood misbehaviour. Those of a Freudian persuasion popularized *psychoanalysis* in children and the ADHD debate shifted to interpretations of unwanted social behaviour as an outcome of the psyches' adjustment to latency (Freud, 1946)<sup>14</sup>.

Comparatively, an important distinction between the psycho-environmental and the psycho-neurological perspectives is the *treatment* of ADHD. The former accepts the role of pharmacology to degree, yet allows for the possibility of improvement in symptoms through therapy and or environmental management including pedagogy and family therapy. The latter focuses on treating the

brain as an organ and relies heavily on psychotropic treatment alone.

### *Social constructionist perspective*

In contrast to previously discussed ‘perspectives’, this section describes a quite dramatically different view. Rather than simply presenting alternative views to the dominant bio-neurological position, the tenets of social constructionism turn the focus to the *notion* that perceptions of ADHD are related to the social experiences and beliefs of actors, rather than mere descriptions of such perceptions. As such, the ‘social constructionist perspective’ represents an approach to the exploration of ADHD ‘meanings’, the social actors who may be involved, and their social reactions to it. For this reason, as ‘medicalization’ is in itself a constructionist ‘idea’ (Conrad & Potter, 2000), consideration of views deemed to reflect a ‘social constructionist perspective’ may be useful in exploring underlying beliefs and reactions connected with it.

Indeed, numerous sociological studies indicate the adoption of a social constructionist standpoint when investigating a broad range of social problems. This is exemplified in Burr’s (1995) exploration of ‘illness and disease’. Here, multiple layers of human experience are implicated. She states:

Defining illness and disease is not simply a matter of identifying the presence of pathology. It is a deeply social matter involving the interpretation of our experience within our particular cultural context of assumptions, norms and values as well as the economic structure of our society. It is also a matter of power relations. The bodies’ ‘deficiencies’ only show up as such when persons are constrained to live in environments designed to suit the needs and activities of others’ (Burr, 1995, p. 40)

It is reasonable to assume that such complexities, as noted by Burr, could apply to numerous ‘conditions’, making a social constructionist approach well suited to the exploration of social orientations of ADHD. However, while this may be the case, a closer review of contemporary disagreements surrounding this broad sweeping term, ‘social constructionism’, suggests that doing so may be more challenging than one may initially expect. This may be at least partly because, as Lock and Strong point out, “there is no one school of social constructionism” (2010, p. 6).

Popularized by Berger and Luckmann (1966), and, according to Hacking (1999), deeply rooted in Kantian philosophy, this is not surprising as social constructionism is reported to have emerged through several schools of thought. Lock and Strong (2010) trace its development through, for example, the broad existential tradition of the French philosopher Maurice Merleau-Ponty (1962); Foucault’s (1965) discursive ‘self’; Mead’s (1934) notions of ‘self, other and I’ and, in no way exhausting the list, Goffman’s ‘performance’ of social roles (1959).

It is widely held, however, that it was the sociological critique of ‘social problems’ in the 1970’s, which brought ‘social constructionist’ ideology and the rising interest in phenomenological sociology. This was largely due to the theoretical work of Spector and Kituse (1977) who are acknowledged as having steered social *enquiry* towards a focus on the ‘social conditions’ that underpin perceptions of ‘social problems’. The ensuing decades that followed showed a trend towards social researchers asking *how* and *why* particular social problems had, in the first instance, become ‘popularized’ (Loseke & Best, 2003). Moreover while contemporary ‘meaning-making’ rhetoric labelled as ‘social constructionism’, intensified and, at the same time, broadened (Denzin & Lincoln, 2005; Holstein & Gubrium, 2008), it was perhaps to be expected that research studies claiming to have drawn on a social constructionist perspective reflected quite different research topics. These varied, for example, from ‘reality television’ exposing crime (Cavender, 2003) to the theorizing the social organization of deviance (Best & Luckenbill, 1994). Closer to the topic under investigation in this study, Singh (2004) utilized a social constructionist stance to uncover numerous ambiguities surrounding ADHD ‘meanings’ and Conrad and Potter (2000) framed their investigating of the expansion of medicalizing categories. Constructionist thinking on the process of medicalization is demonstrated as follows:

Psychiatric and medical diagnoses are the product of socio-historical circumstances

and the claims-making of particular interest groups. New diagnoses rarely emerge simply as a result of new scientific discoveries. Medicalization studies have demonstrated that agents such as self-help and advocacy groups, social movements, health-related organizations, pharmaceutical companies, academic researchers, and clinicians can be central in creating specific diagnoses. (Conrad and Potter, 2000)

A further example of the effectiveness of interrogating social problems from a social constructionist perspective is found in Pawluch's (2003) analysis of the changing characterisation of the "new paediatrics". She found that social actors performing the role of paediatricians "oversee not only children's physical growth and development, but their emotional, psychological, social and even, as some paediatricians have interpreted it, their spiritual well being" (p. 219).

Yet another example of sociological enquiry into cultural definitions of 'disease' is found in Zola's (1966) comparative analysis of differences in interpreting symptoms between 'patients' of Italian and Irish ethnic origins. This study showed that "socio-cultural background may lead to different definitions and responses to essentially the same experience" (Zola, 1966, p. 630). It therefore highlights the importance of *social interpretations* of abnormality.

Applying some of the principles discussed thus far, if one assumes the position that the social world is the product of social processes (Burr, 2003), then a social constructionist approach to ADHD would suggest that the varied 'meanings' of ADHD, even meanings derived from the psycho-neurological and psycho-environmental perspectives, are a direct perception of multiple ADHD realities. It further suggests that social reactions to such meanings could include medicalizing actions. Therefore, returning to the task of relaying a social constructionist perspective of ADHD for the purposes of this study, this standpoint steers attention towards exposing social responses to ADHD 'meanings', rather than *describing* 'meanings' of ADHD per se.

Beyond challenging medical domination, social constructionism is also used to explain social phenomena. Such an example is found in Armstrong's article, *Canaries in the Coalmine* (Armstrong, 2006). Here, Armstrong suggests that the global community of today is itself in the process of developing a collective 'short attention span'<sup>15</sup>. Likewise, Grandpre in his book, *Ritalin Nation* (1999), views ADHD as a product of a modern "rapid fire culture" within a contradictory world of virtual and actual realities. Grandpre claims that vulnerable ADHD individuals are the ones who are unable to cope with it. Still others conceptualize ADHD as a symbol of pharmaceutical enterprise (Stead, Lloyd, & Cohen, 2006) and Conrad (1997) suggests that the neuro-scientific approach acts symbiotically with the alluring power of the media's involvement, to shape public perceptions. Interestingly, according to Norris and Lloyd (2000), the topics of medication, criminality, genetic studies, educational exclusion and examination accommodation are amongst the most popular aspects of ADHD featured in newspapers.

In sum, a social constructionist standpoint reveals there can be no objective *ADHD fact*. Therefore, it can be argued that the leverage social constructionist thinking has within the broad range of ADHD perspectives, is its facilitation of ADHD as an object with which people interact. Social constructionist ideas, therefore, form a natural conduit to the exploration of social reactions to human behaviour through the formation of moral judgements.

## Closing comments

Sociologists, educators and health professionals have long been interested in studying human behaviour. A search using the key words 'behaviour' and 'child' using the academic search engine *web of science*, for example, yielded 44,298 peer reviewed journal articles alone from fields including psychology, psychiatry, paediatrics and disability studies. Researchers clearly want to know 'something' about children's behaviour, especially problematic behaviour; how to measure it, how to control it, how to understand its causes and social impact and how to define it.

ADHD is predominantly framed in terms of problematic social *behaviour*. As stated, ADHD is reported in academic literature and popular culture in markedly diverse ways. The perspectives presented in this paper suggest that everyday images are strikingly different. This may explain why ADHD is seen today in such contrasting ways, from clichés and images of binge-drinking footballers (Daily Telegraph, 2004), forgetful and physically unsteady grannies (Clevenger, 2006), eccentric entrepreneurs (Gilbertson, 2003), cantankerous toddlers (Byrne, Bawden, Beattie, & DeWolfe, 2000) and suicidal adolescents (GalÈra, Bouvard, Encrenaz, Messiah, & Fombonne, 2008).

Some claim an authoritative stance exuding ‘expert’ knowledge of ADHD’s pathology (Barkley, 2000; Biederman & Faraone, 2004; Selikowitz, 2004). As seen in the array of perspectives described in this paper, I contend that ADHD remains an enigma that most people have a definite opinion about; a ‘condition’ which blankets the globe in all manner of ways, leaving most who would analyse the wide variety of views sure of little more than to be ‘ADHD’, is to be “different”.

Is the existence of human difference enough, however, to explain the many faces of ADHD? Is it sufficient to make comprehensible the mass use of psychotropic medication to control the behaviours of those who have been so named “ADHD”? While these questions create an assortment of oddities to brood over, critical questions remain as to *how* an infant, born with the straightforward identity of ‘child’, is somehow transformed to ‘ADHD incarnate’.

## References

- American Psychiatric Association. (2000). Diagnostic and statistical manual of mental disorders electronic resource : text revision, DSM-IV-TR
- Annicchiarico, I. (2009). Psychobiology of male homosexuality: Recent Findings. [Review]. *Universitas Psychologica*, 8(2), 429-445.
- Armstrong, K. L., Previtara, N., & McCallum, R. N. (2000). Medicalizing normality? Management of irritability in babies. [Article]. *Journal of Paediatrics and Child Health*, 36(4), 301-305.
- Armstrong, T. (2006). Canaries in the Coalmine. In G. Lloyd, J. Stead & D. Cohen (Eds.), *Critical New Perspectives in ADHD*. Oxon: Routledge.
- Aronson, J. D. (2007). Brain imaging, culpability and the juvenile death penalty. *Psychology Public Policy and Law*, 13(2), 115-142. doi: 10.1037/1076-8971.13.2.115
- Ballard, K., & Elston, M. A. (2005). Medicalisation: A Multi-dimensional Concept. *Social Theory & Health*, 3(3), 228.
- Barden, M. (2003). Abstracts for the XIth World Congress of Psychiatric Genetics. In N. Barden, M. Cote, L. DeLisi, M. Gill, J. Kelsoe & M. Schalling (Eds.): International Society of Psychiatric Genetics.
- Barkley, R. (1981). *Hyperactive children : a handbook for diagnosis and treatment*. New York: Guilford Press.
- Barkley, R. (1990a). *Attention-deficit hyperactivity disorder : a handbook for diagnosis and treatment*. New York: Guilford Press.
- Barkley, R. (1991). *Attention-deficit hyperactivity disorder : a clinical workbook*. New York: Guilford Press.
- Barkley, R. (1997). *ADHD and the nature of self-control*. New York: Guilford Press.
- Barkley, R. (2000). *Taking charge of ADHD : the complete, authoritative guide for parents / Russell A. Barkley*. New York : Guilford Press.
- Barkley, R. (2006, June 23 2006). Russell A Barkley PhD: The Official Site
- Barkley, R., Cook, E., & Diamond, A. (2002). International Consensus Statement on ADHD. *Clinical Child and Family Psychology Review*, 5, 22.
- Best, J., Luckenbill. (1994) *Organizing Deviance* (2<sup>nd</sup> ed.) New Jersey: Prentice Hall
- Breggin, P. R. (1995). Q: Are behavior modifying drugs being overprescribed for America's schoolchildren? *Insight on the news*, 11(31), 18-22.
- Breggin, P. R. (1998). *Talking back to Ritalin : what doctors aren't telling you about stimulants for children / Peter R. Breggin*. Monroe, Me. : Common Courage Press.
- Bundles Baby Ultrasound (Producer). (2009). A family bonding experience. Retrieved from [www.BundlesBaby.com.au](http://www.BundlesBaby.com.au)
- Burr, V. (1995). *An introduction to social constructionism / Vivien Burr*. London ; New York : Routledge.
- Burr, V. (2003). *Social constructionism / Vivien Burr* (2nd ed. ed.). London ; New York : Routledge.

- Carey, W. B. (2002). Is ADHD a valid disorder? In P. S. Jensen & J. R. Cooper (Eds.), *Attention Deficit Hyperactivity Disorder: State of the Science*. Kingston, New Jersey: Civic Research Institute.
- Cavender, G. (2003). In Donileen R. Loseke & Joel Best (Eds.) *Social Problems: Constructionist Readings*. New York: Aldine De Gruyter.
- Castellanos, F. X., & Tannock, R. (2002). Neuroscience of attention-deficit/hyperactivity disorder: the search for endophenotypes. *Nature Reviews Neuroscience*, 3, 11.
- Chapman, L. J. (1991). Schizophrenia Genesis - The Origins Of Madness - Gottesman,II. *Contemporary Psychology*, 36(12), 1032-1033.
- Charon, J., M. (2007). *Symbolic Interactionism: An introduction, an interpretation, and integration* (9th ed.). New Jersey: Pearson Prentice Hall.
- Clarke, A. (2009). *Biomedicalization: Technoscience, Health and Illness in the U.S.* Lecture. University of California, San Francisco. University of Sydney.
- Clevenger, V. B., R, Argronin, M, Silverman, M. (2006). Attention deficit hyperactivity disorder (ADHD) diagnosed on the basis of frequent falls in an 83 year old woman. *Journal of the American geriatrics society*, 54(4 supplement S), S68-S68.
- Coghill, D. (2005). Attention-deficit hyperactivity disorder: should we believe the mass media or peer-reviewed literature? *Psychiatry Bulletin*, 29(8), 288-291. doi: 10.1192/pb.29.8.288
- Cohen, D. (2006). Critiques of the ADHD enterprise. In G. Lloyd, J. Stead & D. Cohen (Eds.), *Critical New Perspectives on ADHD*. London: Routledge.
- Cohen, D., & Leo, J. (2004). An Update on ADHD Neuroimaging Research. *The Journal of Mind and Behaviour*, 25(2), 5.
- Compart, P., & Laake, D. (2009). *The Kid-Friendly ADHD & Autism Cookbook, Updated and Revised: The Ultimate Guide to the Gluten-Free, Casein-Free Diet* (2nd ed.). Beverly, MA: Fair Winds Press.
- Conners, C. K. (1997). *Conners Rating Scales-Revised (CRS-R)*: Psychpress.
- Conrad, P. (1975). The Discovery of Hyperkinesis: Notes on the Medicalization of Deviant Behavior. *Social Problems*, 23(1), 12-21.
- Conrad, P. (1976). *Identifying hyperactive children: the medicalization of deviant behavior / Peter Conrad ; foreword by Mark A. Stewart*. Lexington, Mass.: Lexington Books.
- Conrad, P. (1997). Public Eyes and Private Genes: Historical Frames, News Constructions, and Social Problems. *Social Problems*, 44(2), 139-154.
- Conrad, P. (2007). *The medicalization of society: on the transformation of human conditions into treatable disorders / Peter Conrad*. Baltimore : Johns Hopkins University Press.
- Conrad, P., & Markens, S. (2001). Constructing the 'gay gene' in the news: optimism and skepticism in the US and British press. [Article]. *Health*, 5(3), 373-400.
- Conrad, P., & Potter, D. (2000). From hyperactive children to ADHD adults: Observations on the expansion of medical categories. *Social Problems*, 47(4), 559-582.
- Conrad, P., & Schneider, J. W. (1980). *Deviance and medicalization : from badness to sickness / Peter Conrad, Joseph W. Schneider ; foreword by Joseph C. Gusfield*. St. Louis : Mosby.

- Daily Telegraph. (2004, August 31, 2004). Willie Mason taking ADHD drugs, *Daily Telegraph*.
- Denzin, N.K., & Lincoln, Y.S. (2005). *The SAGE Handbook of qualitative research*. London: Sage
- Diller, L. H. (1998). *Running on Ritalin: A physician reflects on Children, Society and the Performance Pill*. New York: Bantam Books.
- Feingold, B. F. (1975). *Why your child is hyperactive* New York : Random House.
- Foucault, M. (1965). *Folie et deraison. English Madness and civilization; a history of insanity in the age of reason. Translated from the French by Richard Howard*. New York: Pantheon Books.
- Foucault, M. (1973). *The birth of the clinic : an archaeology of medical perception / Michel Foucault ; translated from the French by A.M. Sheridan Smith*. London : Routledge.
- Foucault, M. (1977). *Surveiller et punir. English Discipline and punish : the birth of the prison / Michel Foucault ; translated from the French by Alan Sheridan (1st American ed. ed.)*. New York : Pantheon Books.
- Foucault, M. (1980). *Power/knowledge : selected interviews and other writings, 1972-1977 / Michel Foucault ; edited by, Colin Gordon ; translated by Colin Gordon ... [et al.]*. Brighton, Sussex :: Harvester Press.
- Fox, B., & Worts, D. (1999). Revisiting the critique of medicalized childbirth - A contribution to the sociology of birth. *Gender & Society, 13*(3), 326-346.
- Freud, A. (1946). The ego and the mechanisms of defence / Anna Freud ; translated from the German by Cecil Baines. New York : International Universities Press.
- Furman, L. (2005). What is attention-deficit hyperactivity disorder (ADHD)? *Journal of Child Neurology, 20*(12), 994-1002.
- Furman, L. (2008). Attention-deficit hyperactivity disorder (ADHD): Does new research support old concepts? [Review]. *Journal of Child Neurology, 23*(7), 775-784. doi: [10.1177/088307380831809](https://doi.org/10.1177/088307380831809)
- Giedd, J. N., Blumenthal, J., Molloy, E., & Castellanos, F. X. (2001). Brain Imaging of attention deficit/hyperactivity disorder. In J. Wassertein, L. E. Wolf & F. F. Lefever (Eds.), *Adult Attention Deficit Disorder: brain mechanisms and life outcomes*. New York: New York Academy of sciences.
- Gilbertson, D. (2003). 'ADHD' or 'Latent Entrepreneur Personality Type' Retrieved from <http://74.125.155.132/scholar>
- Goffman, E. (1959). *The Presentation of Self in Everyday Life*. New York: Doubleday Anchor.
- Goffman, E. (1962). *Asylums : essays on the social situation of mental patients and other inmates* Chicago : Aldine.
- Goggin, G. (2005). *Disability in Australia : exposing a social apartheid / Gerard Goggin and Christopher Newell*. Sydney : UNSW Press.
- Goodman, G., & Poillon, M. (1992). ADD: An acronym for any dysfunction or difficulty. *Journal of Specila Education, 26*, 37-56.
- Gracia-Arnaiz, M. (2007). Eating well, eating poorly and the medicalization of eating behavior.

- [Article]. *Salud Publica De Mexico*, 49(3), 236-242.
- Graham, L. J. (2007). Out of Sight, Out of Mind/Out of Mind, Out of Site: Schooling and Attention Deficit Hyperactivity Disorder. *International Journal of Qualitative Studies in Education (QSE)*, 20(5).
- Hacking, I. (1999). *The Social Construction of What?* Harvard: Harvard University Press.
- Hartley, H. (2009). The Medicalization of Society: On the Transformation of Human Conditions into Treatable Disorders. *Contemporary Sociology-a Journal of Reviews*, 38(1), 14-17.
- Heston, L. L. (1970). The Genetics of Schizophrenic and Schizoid Disease. *Science*, 167, 7.
- Hildebrand, J. (2007, May 2). Top-level health alert on Ritalin, news, *The Daily Telegraph*. Retrieved from <http://www.dailytelegraph.com.au/news/top-level-health-alert-on-ritalin/story>
- Holstein, J., & Gubrium, J. F. (eds.) (2008). *Handbook of Constructionist Research*. New York: Guilford
- Illich, I. (1975). *Medical nemesis : the expropriation of health / Ivan Illich*. London : Calder & Boyars.
- Jackson, G. E. (2006). A curious consensus: "Brain Scans Prove Disease"? *Ethical Human Psychology and Psychiatry*, 8(1), 55 - 60.
- Jay, J. (2004). *The Gene Illusion*. New York: Algora Publishing.
- Joseph, J. (2000). Not in Their Genes: A Critical View of the Genetics of Attention-Deficit Hyperactivity Disorder. *Developmental Review*, 20(4), 539-567.
- Joseph, J. (2006). *The Missing Gene: Psychiatry, Heredity, and the Fruitless Search for Genes*. New York: Algora.
- Kant, I. (1934). *Critique of pure reason / [by] Immanuel Kant* (J. M. D. Meiklejohn, Trans.). London : New York : J. M. Dent & sons, ltd. ; E. P. Dutton & co., inc.
- Kaufman, S. R. (1994). The Social Construction of Frailty - An anthropological perspective. *Journal of Aging Studies*, 8(1), 45-58.
- Kovatchev, B., Cox, D., Hill, R., Reeve, R., Robeva, R., & Loboschefska, T. (2001). A Psychophysiological Marker of Attention Deficit/Hyperactivity Disorder (ADHD)--Defining the EEG Consistency Index. *Applied Psychophysiology and Biofeedback*, 26(2), 127.
- Kupfer, D. J., Baltimore, R. S., & Berry, D. A. (2000). National Institutes of Health Consensus Development Conference Statement: diagnosis and treatment of attention-deficit/hyperactivity disorder (ADHD). *Journal of the American Academy of Child and Adolescent Psychiatry*, 39(2), 11.
- Lange, J. (1930). *Crime and Destiny*. New York: Charles Boni.
- Lee, S., & Mysyk, A. (2004). The medicalization of compulsive buying. [Article]. *Social Science & Medicine*, 58(9), 1709-1718.
- Leo, J., & Cohen, D. (2003). Neuroimaging studies of ADHD: Broken brains or flawed research. *Journal of Mind and Behavior*, 24, 27.
- Lock, A., & Strong, T. (2010). *Social Constructionism: Sources and Stirrings in Theory and Practice*. Cambridge: Cambridge University Press.

- Loseke, D. R., Best, J. (2003). *Social Problems: Constructionist Readings*. New York: Aldine de Gruyter.
- Lowy, I., & Gaudilliere, J. P. (2006). The medicalisation of menopause, movements for women's health and controversies over hormonal therapies. [Article]. *Nouvelles Questions Feministes*, 25(2), 48-+.
- Lunbeck, E., & Tracy, S. W. (2007). Medicalizing Alcoholism One Hundred Years Ago. *Harvard Review of Psychiatry*, 15(2), 86 - 91.
- Malacrida, C. (2003). *Cold comfort : mothers, professionals, and attention deficit disorder / Claudia Malacrida*. Toronto : University of Toronto Press, c2003.: Toronto : University of Toronto Press, c2003.
- Malacrida, C. (2004). Medicalization, ambivalence and social control: mothers' descriptions of educators and ADD/ADHD. *Health*, 8(1), 61-80.
- Marshall, B. L. (2007). Climacteric redux? (Re)medicalizing the male menopause. [Review]. *Men and Masculinities*, 9(4), 509-529.
- McCue, J. D. (1995). The naturalness of dying. *Jama-Journal of the American Medical Association*, 273(13), 1039-1043.
- McMillan, S. J. (2009). The Medicalization of Cyberspace. *New Media & Society*, 11(3), 463-464. doi: 10.1177/14614448090110030805
- McMorran, J. (2009). iGP Notebook: UK medical encyclopaedia on the world wide web. Retrieved November 12, 2009, from GP Notebook [www.gpnotebook.co.uk/simpleprocess.cfm?querystring=ADHD](http://www.gpnotebook.co.uk/simpleprocess.cfm?querystring=ADHD)
- Mead, G. H. (1934). *Mind, self, and society / from the standpoint of a social behaviorist ; ed. and with an introd. by C.W. Morris* (C. W. Morris, Trans.). Chicago :: University of Chicago Press.
- Merleau-Ponty, M. (1962) *Phenomenology of perception* (trans.C. Smith). London: Routledge & Kegan Paul.
- Meyer, V. F. (2003). Medicalized menopause, U.S. style. *Health Care for Women International*, 24(9), 822 - 830.
- Monaghan, L. F. (2007). Body Mass Index, masculinities and moral worth: men's critical understandings of 'appropriate' weight-for-height. [Article]. *Sociology of Health & Illness*, 29(4), 584-609.
- Mustanski, B. S., DuPree, M. G., Nievergelt, C. M., Bocklandt, S., Schork, N. J., & Hamer, D. H. (2005). A genome wide scan of male sexual orientation. [Article]. *Human Genetics*, 116(4), 272-278. doi: 10.1007/s00439-004-1241-4
- National Library of Medicine. (2009). *Medical Subject Headings: ADHD Attention Deficit Hyperactivity Disorder*. Bethesda, Maryland, United States: national Institutes of Health.
- Norris, C., & Lloyd, G. (2000). Parents, professionals and ADHD: What the papers say. *European Journal of Social Needs Education*, 15(2), 123-137.
- O'Rourke, D. H., Gottesman, II, Suarez, B. K., Rice, J., & Reich, T. (1982). Refutation of the General Single-Locus Model for the Etiology OF Schizophrenia. *American Journal of Human Genetics*, 34(4), 630-649.
- Parsons, T. (1951). *The Social System*. London: Routledge & Kegan Paul.

- Pedrosa, E., Nolan, K. A., Stefanescu, R., Hershcovitz, P., Novak, T., Zukov, I., et al. (2009). Analysis of a Promoter Polymorphism in the SMDF Neuregulin 1 Isoform in Schizophrenia. *Neuropsychobiology*, 59(4), 205-212. doi: 10.1159/000223732
- Pittelli, S. J. (2002). Meta-analysis and psychiatric genetics / Drs. Faraone and Biederman reply. *American Journal of Psychiatry*, 159(3), 1.
- Prosser, B. J. (2008). Beyond ADHD: a consideration of attention deficit hyperactivity disorder and pedagogy in Australian schools. *International Journal of Inclusive Education*, 12(1), 81 - 97.
- Pawluch, D. (2003). In Donileen R. Loseke & Joel Best (Eds.) *Social Problems: Constructionist Readings*. New York: Aldine De Gruyter.
- Rafalovich, A. (2004). *Framing ADHD children : a critical examination of the history, discourse, and everyday experience of attention deficit/hyperactivity disorder / Adam Rafalovich*. Lanham, Md. : Lexington Books.
- Rafalovich, A. (2005a). Exploring clinician uncertainty in the diagnosis and treatment of attention deficit hyperactivity disorder. *Sociology of Health & Illness*, 27(3), 305-323.
- Rafalovich, A. (2005b). Relational troubles and semi-official suspicion: Educators and the medicalization of "unruly" children. *Symbolic Interaction*, 28(1), 25-46.
- Remschmidt, H., & Theisen, F. M. (2005). Schizophrenia and related disorders in children and adolescents. *Journal of Neural Transmission-Supplement*(69), 121-141.
- Rojas, N. L., & Chan, E. (2005). Old and new controversies in the alternative treatment of attention-deficit hyperactivity disorder. *Mental Retardation and Developmental Disabilities Research Reviews*, 11(2), 116-130.
- Rosen, R. C. (1996). Erectile dysfunction: The medicalization of male sexuality. *Clinical Psychology Review*, 16(6), 497-519.
- Rossol, J. (2001). The medicalization of deviance as an interactive achievement: The construction of compulsive gambling. [Article]. *Symbolic Interaction*, 24(3), 315-341.
- Rubinstein, R. A., Scrimshaw, S. C., & Morrissey, S. E. (2000). Classification and process in sociomedical understanding: Towards a multilevel view of sociomedical methodology. In G. L. Albrecht, R. Fitzpatrick & S. C. Scrimshaw (Eds.), *Handbook of Social Studies in Health and Medicine* (pp. 13). London: Sage Publications.
- Scheff, T. (1966). *Being mentally ill*. Chicago: Aldine Publishing Co.
- Selikowitz, M. (2004). *ADHD: the Facts, all the information you need straight from the experts*: Oxford University Press.
- Singh, I. (2004). Doing their jobs: mothering with Ritalin in a culture of mother-blame. *Social Science & Medicine*, 59(6), 1193-1205.
- Stead, J., Lloyd, G., & Cohen, D. (2006). Introduction. In G. Lloyd, J. Stead & D. Cohen (Eds.), *Critical New Perspectives on ADHD*. London: Routledge.
- Szasz, T. S. (1963). *Law, Liberty and Psychiatry*. New York: Macmillan.
- Watkins, E. S. (2007). The medicalisation of male menopause in America. *Social History of Medicine*, 20(2), 369-388.
- World Health Organization. (1993). *The ICD-10 Classification of Mental and Behavioural Disorders: Diagnostic criteria of research* Geneva: World Health Organization Retrieved from

<http://www.who.int/classifications/icd/en/GRNBOOK.pdf>.

Zola, I. (1966). Culture and Symptoms - Analysis of Patients Presenting Complaints. *American Sociological Review*, 31(5), 615-630.

Zola, I. (1972). Medicine as an institution of social control. *Sociological Review*(20), 14.