

Collision Course: Assessments of Attention Deficit Disorder

Evaluating the Effectiveness of the Educational Process

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Abstract

America is a society of measurers, comparing and contrasting everything from sports scores to the price of coffee to unemployment statistics. This measurement mentality extends to our schools, where children and adults are assessed yearly, quarterly, and sometimes weekly against a yardstick that can change from one test to the next. In order to quantify test results and promote objectivity, various 'scientific' methods of assessment have been developed. There have been attempts to apply these scientific methods to determine if an individual has Attention Deficit Disorder (ADD). The diagnosis of ADD is made on a series of questions that base themselves on *perceived* behaviors. The inherent dangers are that often the adult with ADD has perceptions that don't match the interviewer's perceptions, or that the criteria is determined by remembered events, and many people with ADD have incredibly poor memories, and that subjectivity and reliability problems can occur. In the quest to create an etiology for ADD, treatment has focused on medication rather than psychosocial therapy and other non- pharmacological methods. Third party observations about behavior are often seen as more valid than the observations made by the individual with the problem, leading to questions about motivation on the part of those recommending the assessment. Finally, tests to determine the type and scope of the ADD are based on the model developed for children, which can lead to built in flaws in diagnosis, treatment, and education of the adult with ADD.

Introduction

Imagine a series of rickety desks and chairs placed up and down the median of a busy city street. Cars, trucks, and buses of all shapes, sizes, and colors rush past either side in a calliope of honking horns and exhaust fumes. Birds and squirrels play in the tree leaves overhead while traffic lights flash in cadence- green, yellow, red, and back again. There are voices, but never loud enough for the words to be comprehended. A construction crew moves in to the intersection and sets up bright orange cones and signs. Then they unload a jackhammer from the truck. In the midst of all this you are handed a test upon which the next years or even decade of your educational life depends, and instructed to go sit out at one of the flimsy desks in the middle of the chaotic street where everyone else is already engrossed in the exam.

If you have Attention Deficit Disorder, you know you are doomed to fail before you start.

I became interested in Attention Deficit Disorder when I recognized that my extremely bright, capable, *gifted* child was having problems in school that were hauntingly familiar to the problems I had in school as a child, right down to the label of “space cadet”. After spending years believing my disorganization and forgetfulness were signs of stupidity, it was an enormous relief to discover there was an underlying reason for the problems. I had unconsciously developed coping skills to get through college and social situations, and now I began to consciously apply those skills to my problems. As my capability grew, so did my confidence, and I was determined that my children would not have to go through 35 years of life thinking they were stupid because they did not

remember where they left their shoes. The more I studied ADD, the more I disliked what I was reading for diagnostic criteria. It seemed subjective, biased, and offered no concrete evidence. The underlying, base assumption is that something is wrong with those children and adults that are spacey, impatient, or impulsive, and they have to be corrected away from this behavior. At the same time, I began to study personality types, and saw many parallels between certain personality types and ADD types. In writing this paper I want to further my understanding of the general assessment techniques used to diagnose ADD, in hopes that later on in my Ph.D. studies I could develop a thesis about personality types and their relation to Attention Deficit Disorder.

Attention Deficit Disorder (ADD) or technically Attention Deficit Hyperactivity Disorder (ADHD) was long believed a disorder that affected only children. The disorder was thought to be outgrown in adolescence. The past ten years have determined that ADHD youngsters more often than not grow up to be ADHD adults. If you did still have the disorder, it was best to pretend you'd outgrown it, for our society frowns on those that can't control themselves, who can't stay on task, or jump from one idea to the next. If an individual cannot behave in a manner deemed appropriate by current society, then behavior modification through prescription pharmaceuticals is the current expected course of treatment.

In order to define Attention Deficit Disorder, psychiatrists and physicians look at three different areas of a person's functioning abilities. First is attention span, to see if the individual can focus on a task or activity over a period of time. Second is whether the person has control over their impulses, can they wait their turn or do they blurt out comments without waiting? The third area is an individual's level of physical activity,

are they constantly in motion, or are they difficult to get motivated? The idea behind attention deficit is that if a person lands in the middle of the scale of these activities, they are 'normal', and if they are at one extreme or the other of this scale, they are considered to have an attention problem.

In recent years there has been a backlash against labeling people who fall outside the norm as problems. The term attention deficit in itself implies that a person's attention is lacking, when in reality, that person's attention is just behaving differently than what is generally accepted. Are such behavioral tendencies something we can label normal or abnormal, or are they just a function of individual personality? Whether such personality traits are perceived as problems surely has something to do with the environment in which a person is functioning. In the late twentieth-century middle class America we are likely to see individuals who are more active, distractible, and impulsive as maladapted, but in other places and at other times those same traits may have conferred advantages (Diller, 1998).

The American Psychiatric Association (APA) is not even sure how to define Attention Deficit Disorder. In some instances, they call it a behavior disorder, in others it is a syndrome. The diagnostic criteria for ADHD in the Diagnostic and Statistic Manual for Mental Disorders (DSM-IV) were based largely on their predictive validity for educational impairment (McBurnett, Lahey & Pfiffner, 1993). Despite changes in nomenclature and criteria over the past 30 years, the focus remains on an ill-defined constellation of behaviors that did not evolve from an empirical base (Shaywitz & Shaywitz, 1988). The diagnostic criteria presented in the Diagnostic and Statistic Manual for Mental Disorders (DSM) changes every time a new edition of the Manual comes out.

Some of the changes can be attributed to an attempt to fine-tune the diagnosis with the latest information available, but that in itself runs the risk of being captive to the latest medical fads. The term “Attention Deficit Disorder” did not even appear in the DSM until 1980. The first categorization of the ADD syndrome in DSM was called Hyperkinetic Reaction of Childhood in DSM-II. Every new version of the DSM has included a major revision of ADD criteria; children with the same clinical features have been given a half-dozen or so different labels. Criteria for diagnosing variants of ADD have appeared and disappeared, only to reappear again. This meant that diagnosis based on clinical impression can have unacceptably low reliability because of interpretation variance; and without a highly specific definition, reliability can suffer because of criterion variance (McBurnett, Lahey, & Pfiffner, 1993).

Reliability is a cornerstone of educational and psychological testing. Reliability of measurement is defined as the degree of consistency with which the measurement provides information about examinees. In other words, a test is reliable if it measures whatever it is measuring consistently (Worthen, White, Fan, & Sudweeks, 1999). Measurement error in assessing the individual with Attention Deficit Disorder often means the difference between diagnosis and subsequent treatment, and inaction. It is possible that the DSM-IV test criterion for Attention Deficit Hyperactivity Disorder has inherent systematic errors. In an attempt to measure the abnormality of a person that does not function within the unwritten rules of our society, perhaps the test is really measuring a function of that individual’s personality. Measuring aspects of personality that do not fit the societal norm will never produce consistent results, because the norms of society shift and change over time, requiring a change in testing strategy. It is a

vicious circle where the parallel form and test-retest method of the measurement remains reliable because of the consistency of the individual, but attempts to compare results to others fails because of the problem of interrater reliability. Whenever a test is not objective, that is, different scorers to the same examinee, a legitimate question to ask is: how consistent or inconsistent is the scoring process? Interrater reliability attempts to answer this question (Worthen, White, Fan, and Sudweeks 1999).

Attention Deficit Hyperactivity Disorder is the most commonly diagnosed behavioral disorder in American children, affecting an estimated 2 million school age youngsters, according to the National Institute of Health (Coles, 2000). By the early 1990's, the percentage of children who carried ADD characteristics over into adolescence and adulthood hit the eighty-three percent mark (Andrews and Davis, 1997). Obviously, ADD doesn't just vanish when a child reaches maturity. It is possible an ADD teen learns enough coping skills to compensate for his/her perceived disability- the Attention Deficit adult trains himself to masquerade as 'normal' when necessary.

The American Academy of Pediatrics says ADHD is the most prevalent chronic health conditions affecting school-aged children on one hand, and is the most common neurobehavioral disorder of childhood on the other (AAP, 2000). The recent push has been to add more empirical data to the ADHD diagnosis. ADHD is in the process of changing from a behavior disorder to a medical condition. Recent research has concentrated on Attention Deficit Disorder as being a biochemical malfunction of the brain (Andrews & Davis, 1997). Another book boldly states that most people agree that ADD is a result of the inefficiency and inconsistency of the *chemical information transmission system in the brain*. It then hastens to reassure the reader that the brain

itself is fine, there is no damage, and actually ADD people can be (and usually are) quite bright (Solden, 1995).

Russell A. Barkley, a researcher who has written books on ADHD, says all known causes of the syndrome are biological, and educators have an ethical obligation and a duty to play a role in the detection and referral of students with ADHD (Fine, 2001). Barkley is also a strong advocate of using medication to treat the problem. This has frightening implications for the future. If children who behave contrary to societal expectations can be drugged into submission, how long will it be before individuals can be drugged in the name of 'treatment'? There is also the ethical question of medicating for personality enhancement, what psychiatrist Peter Kramer calls “cosmetic psychopharmacology”. Both Prozac and Ritalin are being used by millions of people whose emotional or behavioral problems do not signify mental illness or major dysfunction by psychiatric standards, but for whom the drugs provide a little help to let them, the “walking wounded” ease through life more comfortably (Diller, 1998).

There is also a validity problem in the current diagnostic criteria for assessing ADHD. Validity is concerned with the appropriateness of the inferences or interpretations a user draws from the test scores. The test score provides information about the individual, and is used as a basis for making inferences about that individual. In either case, there is an assumption that the scores accurately reflect the trait that the test is intended to measure (Worthen, White, Fan, and Sudweeks 1999). It is difficult to establish objective diagnostic standards when evaluating a subjective area such as behavior. What behavior irritates one person may not bother another. There is no identified cause specific to ADD. The symptoms are the disease (Diller, 1998).

The DSM-IV divides the symptoms of ADHD into two groups:

1. Inattention
2. Hyperactivity-impulsivity

Under these two groups there are three subtypes:

1. Attention Deficit/Hyperactivity Disorder, Combined Type.

This subtype should be used if at least six symptoms of inattention and six of hyperactivity-impulsivity have persisted for at least six months.

2. Attention Deficit/Hyperactivity Disorder, Predominantly Inattentive Type.

Used if at least six symptoms of inattention (but fewer than six symptoms of hyperactivity-impulsivity have persisted for at least six months.

3. Attention Deficit/Hyperactivity Disorder, Predominately Hyperactive-Impulsive Type.

Used if at least six symptoms of hyperactivity-impulsivity but fewer than six symptoms of inattention have persisted for at least six months.

The following table outlines the current (DSM-IV) guidelines for mental health professionals to use in diagnosis of Attention Deficit Disorder.

TABLE I

American Psychiatric Association Diagnostic and Statistical Manual (DSM-IV)

Criteria for Attention Deficit (ADHD) Hyperactivity Disorder

Attention-deficit/Hyperactivity Disorder

A. Either (1) or (2):

- (1) Inattention: at least *6* of the following symptoms of inattention have persisted for at least 6 months to a degree that is maladaptive and inconsistent with developmental level:
 - (a) often fails to give close attention to details or makes careless mistakes in schoolwork, work, or other activities;
 - (b) often has difficulty sustaining attention in tasks or play activities;
 - (c) often does not seem to listen to what is being said to him/her;
 - (d) often does not follow through on instructions and fails to finish schoolwork, chores, or duties in the workplace (not due to oppositional behavior or failure to understand instructions);
 - (e) often has difficulties organizing tasks and activities;
 - (f) often avoids or strongly dislikes tasks (such as schoolwork or homework) that require sustained mental effort;
 - (g) often loses things necessary for tasks or activities (e.g., school assignments, pencils, books, tools, or toys);
 - (h) is often easily distracted by extraneous stimuli;
 - (i) often forgetful in daily activities.
- (2) Hyperactivity-Impulsivity: at least *4* of the following symptoms of hyperactivity-impulsivity have persisted for at least 6 months to a degree that is maladaptive and inconsistent with developmental level:
 - Hyperactivity:
 - (a) often fidgets with hands or feet or squirms in seat;

- (b) leaves seat in classroom or in other situations in which remaining seated is expected;
- (c) often runs about or climbs excessively in situations where 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. Impulsivity:
- (e) often blurts out answers to questions before the questions have been completed;
- (f) often has difficulty waiting in lines or awaiting turn in games or group situations. B. Onset no later than age 7.

•C. Symptoms must be present in two or more situations (e.g., at school, work, and at home).

•D. The disturbance causes clinically significant distress or impairment in social, academic, or occupational functioning.

E. Does not occur exclusively during the course of PDD, Schizophrenia or other Psychotic Disorder, and is not better accounted for by Mood, Anxiety, Dissociative, or Personality Disorder (DSM-IV Sourcebook).

Official guidelines for evaluating ADD symptoms are vague and open to interpretation-yet they lead to an all or nothing diagnosis. In all the behaviors listed by the DSM under ADD, the word *often* is used to describe behavior that has become a problem. How useful is this? Certain behaviors reiterate others. For example, “Often loses things necessary for tasks and activities” sounds an awful lot like “is often forgetful

in daily activities.” If counting symptoms is the point, this produces two “yes” answers to fundamentally the same question (Diller, 1998). DSM-IV does not specify the criteria for diagnosing ADHD in adults, but says that the diagnosis should be given if the patient had ADHD symptoms in childhood or adolescence and if the “condition has persisted”.

Characteristic adult symptoms are not provided (Wender, 1995). ADHD is said to be present in an individual if a certain number of symptoms are present. With children, it is parents, teachers, and mental health professionals that determine if the symptoms are present, with adults the determination is based on memory of symptoms from childhood. Proliferations of assessment tests are available to help teachers and professionals with determining if an individual may have ADHD. The interesting thing about the assessment tests seems to be their selling points to these professionals. Terms like “quick and easy to score, fast and easy to use, rapidly assess, computerized, automatically transferred to attached profile sheets, rule out diagnoses, high degree of accuracy, and rapidly assess adult social skills” make a mockery of the assessment process. Instead of doing a close and careful analysis, teachers and professionals are encouraged to administer a quick and easy test that will generate the reports they need in less than 20 minutes. ADD checklists were originally created for the purpose of providing an organized method of observing and categorizing the behaviors of children suspected of having ADD. The ADD checklists or scales available to practitioners do not have sufficient technical data to support a separate factor or subscale specific to inattentiveness or ADD-I, thus impairing their diagnostic utility (Erk, 1995).

The diagnosis of ADHD is strongly dependent on a clinical interview in conjunction with a variety of formal and informal measures. Since there is no one test, or

specified combination of tests for determining ADHD, the diagnosis of an attention deficit/hyperactivity disorder (ADHD) requires a multifaceted approach (Office of Disability Policy, 1999). Assessment tests for the individual suspected of having ADD fall into five general categories:

1. Clinical Interview

2. Rating Scales

Examples include: Wender Utah Rating Scale, Beck Anxiety Inventory, Conners Teacher Rating Scale (Age 3-17 years)

3. Neuro-psychological and Psycho-educational Testing

Examples include: Wechsler Adult Intelligence Scale III, Scholastic Abilities Test for Adults, Stanford Diagnostic Mathematics Test, and Detroit Tests of Learning Aptitude-Adult

4. Medical Evaluation

Rule out the following: Neuroendocrine disorders, Neurologic disorders, Impact of medication on attention if tried and under what circumstances

5. Collateral Information

Third Party Sources: Description of current symptoms by spouse, teachers, and employer, Description of childhood symptoms, Information from old school and report cards and transcripts

Information from the individual him/herself is discouraged; this may be because the diagnostic criteria were developed for use on children, whose input is irrelevant to the ADHD diagnoses. The current diagnostic criteria for ADHD require that symptoms emerge prior to age 7 in order for a formal diagnosis to be considered. However, this age-of-onset criterion (AOC) has recently been questioned on both theoretical and empirical grounds (Willoughby, 2000). The ADD diagnosis has no definite medical or psychological marker, and so it is often made exclusively based on a patient's history. In psychology, certain kinds of learning disabilities have fairly specific markers: if someone performs normally on most sections of a standard test, but poorly on its block design or coding portions, this strongly suggests the presence of a visual processing problem. As of yet no such marker exists for ADD (Diller, 1998).

Extraneous factors can also influence both the test taker and the interviewer and lead to false conclusions. ADHD is diagnosed by the accumulation of a number of symptoms, not any one of which is necessary to make the diagnosis or is definitive of the disorder. The symptoms are normal developmental phenomena that attain their status as symptoms only because of their severity or limits on functioning (McBurnett, Lahey & Pfiffner, 1993). Because of the variability of ADHD behavior, its comparisons across time intervals, individual measures, observers, and settings are often quite unreliable (Rutter, 1993). Accepted reliability of the clinical diagnosis of ADHD, however, has been achieved through the use of multiple sources of symptom information, symptom reports from observers who have known the child for at least 6 months and who can give an "average" report of symptom expression over that interval, structured or

semistructured interviews, and internally consistent symptom lists (McBurnett, Lahey & Pfiffner, 1993).

In addition to DSM-IV criteria, behavior rating scales are often portrayed as an objective way to identify students with ADHD. These scales have become an essential component to clinical diagnosis, although their most common use is for identifying a group of children for research purposes by establishing a cutoff score (Shaywitz & Shaywitz, 1988). Using such a procedure as a cutoff score to determine the prevalence of ADHD in the population constitutes a prejudgment. The predecided cutoff scores arbitrarily determine what prevalence will be found. There are no solid independent validating measures; these are pseudo measures. The cutoff problem cannot be resolved by studying the diagnostic behavior of clinicians, because what is being measured is reliability rather than validity (Wender, 1995)

Even well standardized behavior rating scales are imperfect, because there are presently no objective empirical markers that invariably identify children with ADHD (Gordon, 1991). Eric Taylor suggested that there is no valid cutoff point on a behavior rating scale that empirically identifies a student as having ADHD. Even if a valid cutoff score existed, the use of behavior rating scales to identify youngsters with ADHD would still be problematic because most instruments lack interobserver agreement data (Barkley, 1990).

Psychologists and psychiatrists want to ground their testing in the sciences, but have been plagued by reliability and validity problems as outlined previously. Traditional testing procedures are based on a medical model. According to this model, the overt manifestations of a disordered psychological condition are only symptoms-

surface expressions of an underlying cause. Treatment in the medical model is based on the idea that unless the cause of the symptom is removed, a new symptom may develop. Thus, one major function of traditional psychological tests is to ascertain the possible underlying causes of disordered behaviors (Kaplan & Saccuzzo, 1997). In the diagnosis and treatment of ADHD, this function has been virtually ignored. The underlying causes that create ADHD are never determined, much less addressed. If there are no identifiable causes for ADHD, then perhaps it is a part of that individual's personality and makeup, and shouldn't be altered with drugs.

This may be the reason for the sudden surge of interest in finding a neurological answer to the problem of ADHD. Our present American society worships the cold, hard facts of science. Science is rational, objective, and can prove its hypotheses by reason. If science in the form of psychology can't find a way to make ADHD fit into proper category, the feeling goes, then maybe ADHD needs to be diagnosed scientifically, so that rational, objective facts can be applied to the diagnostic criteria and that it can be made acceptable to the public palate.

The search for a medically verifiable way of diagnosing ADHD turned to studies of the brain. With the backing of science, the thought is that there will be more legitimacy to not only the diagnosis of ADD, but also a justification for the use of powerful drugs like Ritalin in the treatment of the ADHD individual. There is an issue of validity. Behavior problems require that someone be responsible for the condition, the individual, parents, society. Lately, American society- in particular, American psychiatry- has moved strongly toward accepting yet another explanation for problems of behavior, motivation, and performance: that they are all caused by some dysfunction of

the brain. The message that follows from this model has been unequivocal and powerful: if a problem is neurologically based, it should be treated with a drug (Diller, 1998).

Julie B. Schweitzer, a psychologist and researcher who studies ADHD has done brain scans on adults with and without ADHD as they did mathematical calculations in a lab. She says the results show that the two groups process information in the brain differently (Fine, 2001). Imaging studies are clarifying which brain regions are involved in the processes that malfunction in people with ADHD. Schweitzer conducted a study of twelve men given a set of mathematical tests, she found that the six men with ADHD performed the tasks differently than the six subjects without ADHD. Subjects with ADHD used the occipital region of the brain, an area associated with visual processing, and the subjects without ADHD used the prefrontal cortex, where numbers are remembered, along with the parts of the brain that handled auditory functions (Fine, 2001). Since the test group was so small, and consisted solely of males, it will have to wait to be seen if the results have any relevance. It would also be interesting to group individuals by personality type and administer the same test to see if any differences become apparent.

Another study first claimed that medication, or medication in combination with behavior therapy was superior to other types of treatment, but later it was admitted that the control group that took no medication and that behavioral therapy alone also improved over the course of the treatment. The study concluded that the use of stimulants was more effective than behavioral therapies in controlling the core symptoms of ADHD (Fine, 2001). The emphasis continues to be on medication, and how to alter

the doses for optimum effect, despite the evidence that non-pharmaceutical treatments like behavioral therapy are as effective.

Because the medical-disease model focuses on problems assumed to be inherent to the child, it ignores how the concept of “disorder” is a function of the constructed social world (Wakefield, 1992). Any deviation in behavior from the accepted cultural norm is now suspect. All one has to do is look at the shift in accepted behavior that occurred after the Columbine High School shootings. Now, mere mention or allusion to weaponry, bombs, or violence is enough to get a student suspended. A five-year-old yelling out “Give me back my truck or I’ll kill you” is immediately identified as having behavioral problems that need to be rectified rather than acting like a five-year-old. The person with ADHD-impulsively is in more danger than ever of being labeled ‘deviant’ and medicated to submission. In contrast, behaviors associated with ADHD in Britain and France are viewed as conduct problems; consequently, ADHD is rarely diagnosed, and medication is infrequently prescribed (Taylor, 1989).

Cultural blinders make us want to deny our society has a problem with the behavior of its children, instead we search for a biological etiology for ADHD. Results have been widely varied and generally inconclusive, without the hard evidence the scientific community needs to support its different hypotheses. These setbacks haven’t discouraged the proponents of medication, however. “The lack of a lab test right now does not invalidate a disorder” states Russell Barkley, “Most mental disorders do not have one. But what is persistent with ADHD is behavior. Teachers have a strong role in distinguishing that behavior from other children’s behavior to identify children with ADHD and get them early treatment” (Fine, 2001).

The phrase that is worrisome is “distinguishing that behavior from other children’s behavior”. This implies an assessment and prejudgment on the part of an educational professional that children who don’t behave as the teacher dictates have something wrong with them and should be treated. Coupled with the “quick and easy” assessment forms readily available, it could explain the explosion in ADHD diagnosis current in America today. More and more evaluators in both research and clinical settings are depending on the use of standardized questionnaires and child rating scales to diagnose ADD. Because questionnaires and standardized tests produce a number on a scale, they lend an aura of scientific objectivity to the ADD diagnosis, but they do not tell you anything about the attitudes and opinions of the raters. Whether that is a parent, teacher, or third party, some degree of subjectivity must operate. Moreover, they fail to address the individual’s competencies, strengths, and coping behaviors. Thus they tend to emphasize problem behaviors and encourage a mindset of pathology (Diller, 1998).

Conclusion

ADHD is not necessarily just a disorder of attention, but one also characterized by the inability to control impulsive responses, specialists say. It mars the ability of a person to put off immediate gratification, for instance, in order to experience a greater reward in the long run (Fine, 2001). So what exactly is wrong with this? The statement describes most children under 10 and many adults. Our consumptive, materialistic culture created the idea of instant gratification as the norm on one hand, and we condemn it and label it as a behavior disorder on the other. It is a frightening idea that American society has

come to the verge of sanctioned mind control. Children and adults that do not conform to a politically correct set of behaviors are evaluated and assessed by a battery of parents, teachers, and mental health professionals, labeled as behavior deficient, and medicated to compliance, usually with a stimulant related to amphetamines that is designated a controlled substance in medical fields. If this happened in other countries around the world, we would deem it a human rights violation.

One of the reasons the end result of an ADD assessment and diagnosis is medication, is that medication is more cost effective than providing special education classes for ADD students. Psychosocial therapy and behavior management training for parents as alternatives is cost prohibitive also. It's become more comfortable in our society to offer a pathological diagnosis and a drug than anything else (Diller, 1998) One possible result of this medical diagnosis of ADHD is that it absolves the child and parent of responsibility for the child's social and academic shortcomings. Parents take their child to a physician, who diagnoses the child with ADHD, and suddenly the child is no longer viewed as having a discipline problem, but as a child that suffers from a medical disorder, The "disorder" not the child, can then be controlled with medication (Smelter, et al., 1996).

Some researchers suggest that many school problems experienced by children with ADHD do not result solely from the inborn, biological factors that underlie the disorder, but from a mismatch between the child and the environment (school). Although ADHD behaviors may be apparent outside the educational environment, the classroom is often where ADHD behaviors are most noticeable. Thus it may serve the school system's interest to control the behaviors in the easiest manner, which for many school

systems may be a diagnosis of ADHD with subsequent medication (Appalachia Educational Laboratory, 1995a). The same ideas can be applied to the ADD adult in both the workplace and society. If an individual uses cocaine to change their behavior, they are a deviant and doing something illegal, if the same individual gets a prescription for the amphetamine Ritalin to modify his/her behavior, they are doing something socially acceptable. ADHD behaviors are also considered as a trait continuum, and there must be children at each end of the continuum; however, there is no diagnosis of a disorder for those children who fall at the opposing end of the continuum: those who are introverted, shy, or hypoactive. This is because those children are “good”, based on society’s designations of desirable behaviors and a diagnosis of a disorder would serve no social purpose. Children at this end of the continuum do not “need” medication to achieve desired behavior (Armstrong, 1996).

There are many social, legal, and ethical issues surrounding the assessment and treatment of Attention Deficit Disorder. The move to standardized testing streamlines the process of applying DSM-IV criteria to potential ADHD individuals, but brings into question the reliability and validity of basically using symptoms to diagnose symptoms. We seem to be searching for a scientific measurement to diagnose a problem that may have more to do with personality conflicts than deviant behavior. Medication for behavior modification may be the easy answer, but it isn’t necessarily the ethical one. I think more research into psychosocial therapy to be in order, along with well designed and executed neurobiological studies. As a society, we are enamoured with the scientific method to the point that we dismiss anything without a provable cause. Excessive measurement and comparison assures us that we are within “standards”, while we

conveniently forget that subjective individuals set those standards in the first place. As a society, it would be culturally negligent of us to cull those that don't fall in the accepted norm of behavior to the label deviant, and attempt to correct what may very well be a personality trait with an arsenal of mind numbing medications. Rather than condemning the differences ADHD individuals bring to society, we should learn to celebrate diversity and all it has to offer.

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