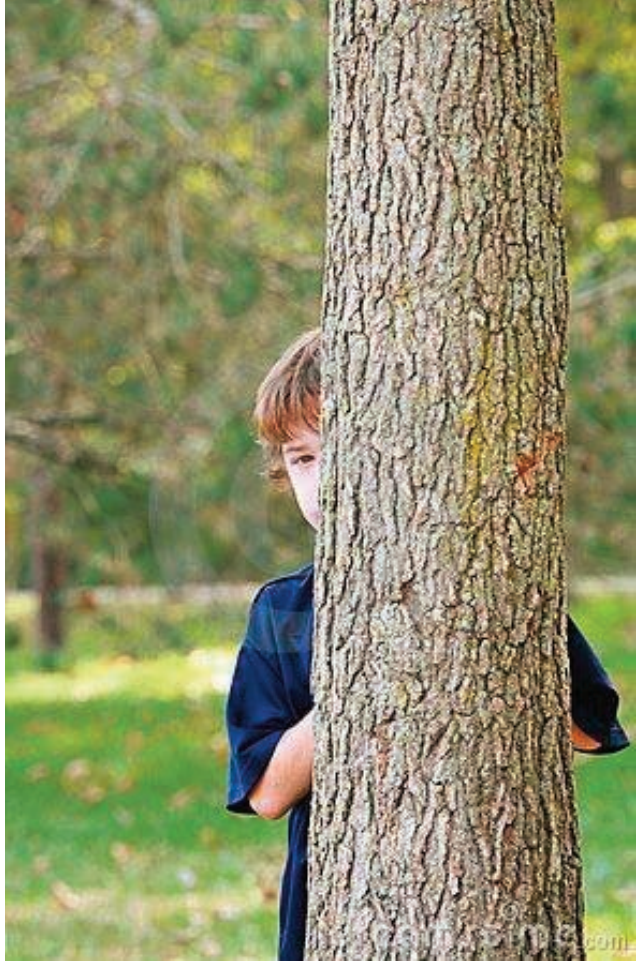

A Systematic Deconstruction of the "Disordered American Boy" Hypothesis

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The labeling and drugging of boys has reached epidemic proportions in the United States of America. Data indicates that approximately 12-14 million American boys have been officially diagnosed with a psychiatric disorder and the vast majority of these boys are prescribed daily doses of psychotropic medications (Baughman, 2006). Conduct Disorder, Oppositional Defiant Disorder, and the most commonly diagnosed psychiatric condition in boys, Attention Deficit Hyperactivity Disorder (ADHD), are being diagnosed at alarming rates in young males across America. Throughout recorded history, males and females have followed divergent development trajectories. Human males, across cultures and across time, have been documented to be more active,

NEW MALE STUDIES: AN INTERNATIONAL JOURNAL ~ ISSN 1839-7816 ~ VOL. 1, ISSUE 3, 2012, PP. 77-95

more territorial, more defiant, and more aggressive than their female cohorts. Distinctly unique male behavioral characteristics that were,since the beginning of hominid evolution, considered to be highly adaptive and essential to the survival of the human race, are now being operationally defined by the American Psychiatric Association as indicators of psychopathology. Grounded in bioevolutionary theory, this paper will challenge the validity and reliability of boyhood psychiatric diagnoses, and will explore in depth the multifarious correlates that are intrinsically related to the labeling and drugging of boys in America.

Keywords: boys, ADHD, Oppositional Defiant Disorder, Conduct Disorder, males, bioevolutionary theory

Historical Review

Across mammals, across cultures, and across historical time, males have been documented to be more active, more defiant, more aggressive, and more territorial than their female cohorts (Bjorklund & Pellegrini, 2002). According to anthropological data sets, distinct male characteristics such as hunting, aggression, accelerated activity levels, and dominance posturing were essential to the survival of the hominid species. In order for his genetic line to survive, it was critical that primordial man be highly proficient in combat, hunting, building, protectiveness, and spatial processing (Jensen, Mrazek, Knapp, Steinber, Pfeffer, & Schowalter, 1997). Evolutionary psychologists have postulated that ancient male behavior patterns that ensured the survival of the hominid species have remained constant throughout evolutionary time, and that current neurological functioning and behavioral response patterns are the direct result of the individuals' past responses to bioeveolutionary contingencies (Buss, 2004; Kahn & Kellert, 2002). According to the scientific literature, there is no doubt that male response patterns, though qualitatively and quantitatively distinct from female response patterns, helped to ensure the survival of the human species throughout evolutionary time (Jensen, et al, 1997). These unique response patterns have been, across cultures, across mammals, and across time highly valued throughout the mammalian kingdom, and have been highly sought after, particularly with regard to resource allocation (Bjorklund & Pellegrini, 2002). Male bioevolutionary contingencies have remained constant for millions of years - of this there can be no doubt. What *has* been altered is our collective definition of male normality. For the first time in recorded human history, we are witnessing a medical paradigm that pathologizes the very essence of maleness, and the majority of Americans have accepted this pseudo-hypothesis without question (Stolzer, 2010).

In order to fully understand the unique developmental trajectory of the modern human male, we must first understand the evolutionary history of the male, including his phylogeny and ontogeny. Tinbergen (1951) conceptualized instincts as fixed action patterns that are elicited by specific evolutionary based stimuli. Response patterns such as heightened activity level and engaging the flight or fight response are not merely examples of evolutionary determinism, but are in fact mechanisms which can be documented in males across diverse geographical locations, and across mammalian species. Such response patterns have never been recorded as pathological in

the scientific record, nor have they ever been conceptualized as symptoms of a psychiatric disorder until relatively recently (Buss, 2004).

Throughout human history, there has been a division of labor among males and females that can be traced to the Pleistocene age (Bjorklund & Pelligrini, 2002). Gathering and the nurturing of children, which took place close to the familial sphere, was typically the work of females. Conversely, males were the hunters and the protectors, which led them far from home and required inordinate amounts of physical activity. Since these unique male attributes have been an essential component of the hominid species for millions of years, it should come as no surprise that boys in the 21st century are highly active, more likely to engage the fight or flight response, and are more likely to engage in aggressive behavior patterns. Natural selection would most certainly favor those males who were the most highly active and most physically equipped to defend themselves and their families (Buss, 2004). From an evolutionary perspective, the value of a particular behavior pattern and the likelihood that this behavior will survive over evolutionary time is ranked by the behavior's ability to maximize benefits in terms of survival, competition, and reproduction (Bjorklund & Pellegrini, 2002).

Those with a vested interest in perpetuating the pseudo-hypothesis that particular boy behaviors indicate neurological pathology (i.e. "ADHD," "Conduct Disorder," "Oppositional Defiance" etc...) simply refuse to take into account the role of evolutionary contingencies. We can no longer afford to ignore the role of natural selection as it relates to boy behaviors that have recently been classified as psychiatric disorders. Heightened activity, running, jumping, climbing, defiance, aggression, refusal to sit still, and the inability to be confined for hours within four walls are not indicators of psychiatric pathology, but are in fact remnants of our bioevolutionary heritage - remnants that cannot be eradicated (Wilson, 1993).

According to the constructs of evolutionary theory, males evolved in distinct ways because of the external pressures they faced in primitive environments (Santrock, 2005; Stolzer, 2008). E.O. Wilson (1993) has hypothesized that for 99.9% of our time on earth, young males roamed large areas, spent the majority of their time unrestricted by adults, and were continually immersed in the natural elements. The confinement of young males in institutions called schools - surrounded by concrete, artificial light, books, computers, and desks - is clearly not congruent with the human male's evolutionary past. We can, if we so choose, refer to the defiance, fidgeting, boredom, and inability to remain seated that is rampant in schools across the country as symptoms of a psychiatric disorder, or we can look to the scientific record to explain these normal and adaptive response patterns that occur in restrictive and unnatural environments across all mammals.

Correlates Related to the Labeling and Drugging of Young Males

From the 1600's until the 1950's, ADHD, Conduct Disorder, and Oppositional Defiance Disorder did not exist in America (Baughman, 2006). In the past, psychiatric disorders were extremely rare in young children as childhood and adolescence were collectively understood to be unique and short- lived developmental stages that would pass with coming maturity (Stolzer, 2010). Across all human cultures, infancy, early childhood, middle childhood, and adolescence were viewed as quantitatively and qualitatively distinct from adulthood, and it was universally understood that these particular developmental stages were fraught with behaviors that would be considered mal-

adaptive in adult populations. In 21st century America, psychiatric diagnoses have skyrocketed, as it is estimated that one in five American children have been labeled with a psychiatric diagnosis - and the vast majority of these children are male (Baughman, 2006). The current method of treatment for "psychiatric illness" in child and adolescent populations is daily doses of dangerous and addictive psychotropic drugs. In the following sections, correlates related to the meteoric rise in boyhood psychiatric diagnoses will be discussed.

Attachment Disruption

The unprecedented rise in psychiatric diagnoses in America is the result of a multitude of converging variables, one of which is the monumental shift that has occurred with regard to attachment processes in American children. It is a scientific fact that across mammals, across cultures, and across time, mothers have been the primary nurturers of their offspring (Bowlby, 1988). However, currently in America, approximately 77% of all American infants are in full time non-parental care (Fogel, 2010). Never before in the history of the mammalian Kingdom have we witnessed the majority of young being cared for by uninvested, unrelated strangers with limited exposure to maternal care. As a direct result of decreased maternal care, ancient and universal mammalian behaviors such as exclusive and long-term breastfeeding, co-sleeping, and remaining in close physical proximity to one's offspring throughout infancy and early childhood have been systematically eradicated in modern day America. At the present time, we have no way of knowing how such fundamental alterations impact the behaviors defined as psychopathology in young males (Bowlby, 1980; Erickson, Sroufe, & Egeland, 1985). What is certain is that those intent on promoting the labeling and drugging of young males have refused thus far to take into account recent alterations in maternal response patterns, and have neglected to admit that such profound alterations may in fact be related to the startling rise in boyhood psychiatric diagnoses over the last 20-30 years. Scholars have suggested that when ancient mammalian maternal behaviors are dramatically altered, emotional, cognitive, biologic, and social processes may be altered in *both* the parent and the child, thus resulting in the parent's willingness to accept a psychiatric label for their young sons (Stolzer, 2005).

There is the common misconception that the advent of the "working woman" has made primordial maternal response patterns impossible in modern day America. However, anthropological data indicates that women have worked for thousands of years while practicing ancient mammalian mothering (i.e. exclusive and long-term breastfeeding, co-sleeping, and remaining in close physical proximity to their young during early infancy and early childhood) (Stuart-macadam & Dettwyler, 1995). Clearly, it is modern day dictates that have decreed that mothering and working must not occur simultaneously. Working in and of itself is not inherently incompatible with mothering; rather, it is our culture that has drawn the line between the public and private spheres. Mothering has been collectively defined in western cultures as a private sphere activity, while working is defined as public activity (Carbello & Pelto, 1991). According to this dichotomous worldview, ancient maternal response patterns are forbidden while in the public sphere, thus perpetuating the cultural practice of paying an uninvested, unrelated stranger to care for our young during the majority of their formative years (Stolzer, 2005; Stuart-Macadam & Dettwyler, 1995).

Behaviorism and Feminism

For decades, American institutions of higher learning and the United States Department of Education have been flooding the American consciousness with the constructs put forth by behavioristic and feministic theory. The underlying assumption of both theories is that human beings are born as "blank slates" (e.g., humans can be shaped and molded at will). In essence, males and females are, by their very nature, androgynous. Bartkey (1990) sums up the prevailing behavioristic and feministic theoretical constructs by stating "human beings are born (bisexual) into our patriarchal society and then, through social conditioning, are transformed into male and female gender personalities" (P.50). Every major university in the United States has gender studies programs that adhere to this reductionistic paradigm, while conveniently ignoring the fields of ethology, neurology, anthropology, neuroendocrinology, genetics, and bioevolutionary science. In addition, public schools across the nation ardently promote feminism and behaviorism and their message is the same: male and female behavior patterns are strictly products of environmental reinforcers and the differences that can be detected in males and females across the world are simply manifestations of social conditioning.

Cultural relativism as it relates to gender differences permeates academic instruction from elementary school through doctoral programs in the United States. However, over the last decade, scientific data sets have continued to indicate that gender is multifaceted, and that certainly, neurological, hormonal, and bioevolutionary processes impact human behavioral patterns (Buss, 2004). Published data has indicated that infants come into the world not as "blank slates," but as hardwired with particular tendencies, knowledge, and attributes (Bjorklund & Pellegrini, 2002). This can be documented in the literature focusing on language development as data confirms that children do not acquire language through simplistic, behavioristic constructs such as operant conditioning, but rather possess an innate tendency to speak (Pinker, 1994). Although feminist scholars vehemently object to the term "innate" when referencing gender differences and have since the 1960's insisted that gender differences are the result of distinct socialization processes (Eagley, 2001), mounting scientific evidence collected via neuroimaging studies confirms that male and female brains are quantitatively distinct (Kandel, Schwartz, & Jessel, 1995; Polanco & Koopman, 2007).

Why are the theories of behaviorism and feminism the cardinal theories accepted at universities across America? The answer is political correctness. Perhaps it is time we take a stance against theories that cannot be substantiated using scientific data. Masculinity and femininity are *not* merely social constructs that can be reconstituted at will (Buss, 2004). Clearly there is empirical evidence that documents that innate and quantifiable hormonal and neurological differences exist in males and females (Gurian, 2001; Jensen, et al, 1997; Polanco & Koopman, 2007). We as a nation must demand that scientifically validated information be disseminated via universities, and in particular, in teachers colleges across the United States. It is common knowledge that the majority of American teacher colleges do not require that teachers, counselors, or administrators be educated in gender differences (i.e., brain differences, learning styles, activity levels, social processes, etc...). Instead, educators in the United States have been inundated with behaviorism and feministic theory which adheres to the belief that male and female children are the same neurologically, socially, intellectually, behaviorally, and emotionally (Stolzer, 2008). It has been known throughout human history that males and females follow divergent developmental trajectories. At present time, this fact is systemically ignored, and has resulted in millions of American boys being labeled as psychiatrically disordered and being prescribed daily doses of dangerous and addictive

psychotropic drugs for behaviors that can be scientifically documented across mammals, across time and across cultures (Jensen, et al, 1997; Stolzer, 2005).

The Hurried Child Syndrome

Throughout the majority of human history, childhood was a time of non-structured exploration, discovery, and heightened activity level. Young boys routinely roamed in packs and covered large, outdoor areas. Adult supervision was minimal with experiential learning occurring as a result of natural and logical consequences. Play time was neither initiated or controlled by adults, and the natural world is where children developed physically, intellectually, morally, emotionally, and socially (Kahn & Kellert, 2002). Over the last 20-30 years, childhood has been dramatically altered in the United States of America. The average American child begins full time daycare at six weeks of age (Fogel, 2010). Beginning in infancy, every moment of the day is structured, and the majority of developmental experience occurs indoors. As the child grows, piano lessons, soccer practice, and a myriad of other structured activities are scheduled. The child is continually being monitored by adults and is constantly being told when, where, how, and why he is to behave.

For 99.9% of our time on earth, humans have lived as hunter-gatherers and our very existence was intrinsically intertwined with the natural world (Wilson, 1993). Children were continually immersed in nature- the sun, the soil, water, sand, rocks, vegetation, and all manner of biophilia- both animal and vegetable. Piaget (1929) postulated that childhood is a time in life when humans are particularly attuned to seek out and learn from the natural world, and if stripped of these esoteric experiences, serious pathology could result. In an attempt to have the brightest, most cognitively competent, well-rounded children, parents have inadvertently denied their offspring the experience of the natural world. Children in America are routinely driven and picked up from school and social and athletic events. Walking to the swimming pool or the baseball diamond has become a thing of the past due to frenzied schedules and the fear of abduction. American parents typically work until 5:00 or 6:00 pm so the outdoor, unrestrained exploratory freedom of the past has been replaced by more time in structured, indoor, adult controlled institutions.

Nature, which was for millions of years the dominant feature of childhood, has now been replaced by structured schedules, adult-maintained indoor environments, T.V.'s, computers, iPods, and cell phones (Stolzer, 2010). Walking and running, which has been a central feature of hominid existence throughout evolutionary time, has been replaced across America with riding in cars, buses, trains, and other means of automated transportation (Miller, Rosenbloom & Silverstein, 2004). Altering our bioevolutionary past has impacted human beings on a vast scale. Obesity is now reaching epidemic proportions in child and adolescent populations across America, and psychiatric diagnoses are rampant- particularly in young males.

E.O. Wilson (1993) has theorized that the natural world is the most compendious and critical environment that children will ever encounter. What is clear is that American children have lost contact with the natural world, and this loss has created unintended and unexpected consequences. Sebba (1991) hypothesized that the natural world attracts, stimulates, and retains a child's attention to such a degree that it positively impacts maturational processes and psychosocial health. Sebba goes on to state that from the perspective of a child, human built environments

are boring, mundane, and foreign. Conversely, in the natural world, a child continually encounters awe, wonder, and instability, which induce sustained focus and interest rather then inattention, distractibility and defiant behavior patterns (Sebba, 1991; Stolzer, 2010).

In short, the amount of time that children are exposed to nature and unstructured, rigorous physical outdoor activity has been dramatically altered in a relatively short time span. The reductionistic medical model that insists that boyhood neuropathology is the impetus of all behavioral problems has yet to examine the role of nature deprivation and the hurried child syndrome. Perhaps ADHD, Conduct Disorder, and Oppositional Defiance are not the result of a disordered brain (i.e., a "chemical imbalance"), but rather, are the direct result of the frenzied, unnatural world that we have created for ourselves and for our children in 21st century America (Stolzer, 2005).

The American Education System

According to the United States government (2010), an astonishing 7 out of 10 students who have been officially labeled as "learning disabled" are male. Furthermore, 80% of the students who have been classified as "psychiatrically disordered" are male, with the most commonly diagnosed disorder being Attention Deficit Hyperactivity Disorder (ADHD). Interestingly, 98% of referrals for behavior and/or learning disability diagnoses come directly from the United States public school system (Baughman, 2006). This should come as no surprise as there is clearly an economic incentive to label children. In 1991, the federal government amended the Americans with Disabilities Act (ADA) to include behavioral and learning disorders. Prior to this amendment, schools received additional monies only for children with physical disabilities such as blindness, deafness, and physical mobility issues. The inclusion of behavioral and learning disorders to this amendment served two purposes; first, it provided an economic incentive for individual schools to label children with learning and/or behavior disorders, and secondly, this amendment caused the rates of learning and behavioral disorders to skyrocket, particularly in young males (Baughman, 2006).

The World Health Organization has stated emphatically that childhood and adolescence are normal developmental stages, therefore it may be extremely difficult to differentiate between "abnormal" and "normal" behavior patterns in child and adolescent populations (Breggin, 2001; Stolzer, 2008). In addition, the Surgeon General of the United States is on record stating that the diagnosis of psychiatric disorders is problematic as there exists no definitive biological, cognitive, metabolic, or neurological test that can confirm the existence of such disorders (Baughman, 2006). In spite of the numerous questions surrounding the validity and reliability of psychiatric diagnostics, the United States continues to lead all other nations in the labeling and drugging of young males.

Teachers, administrators, parents, and counselors across America have bought into the hypothesis that a "chemical imbalance" in the brain is responsible for fidgeting, messy schoolwork, defiance, refusal to sit quietly, and heightened activity level, although no scientific evidence exists to support this hypothesis (Baughman, 2006; Stolzer, 2010). Increasingly, a boy's "acting out" behavior in school is thought to stem from a psychiatric disorder, while familial attributes, evolutionary predisposition, lack of teacher education in the area of gender differences, overcrowded classrooms, and lack of outdoor, rigorous physical activity are conveniently ignored. For the first

time in American history, we are witnessing teachers in the public school system taking on the role of psychologist, psychiatrist, and/or neurologist. Let us not forget that teachers are not now, nor have they ever been, trained as psychologists, psychiatrists, or neurologists. Teachers are trained in curriculum and instruction (with a decidedly behavioristic/feministic bias)- not in diagnosing supposedly complex neurological disorders of the brain (Breggin & Cohen, 1999; Stolzer, 2008).

It is interesting to note that the rates of learning and behavior disorders vary considerably from school to school. In America, private schools do not receive federal monies for children with learning and/or behavior disorders, so the rates of these "disorders" are extremely rare in private schools (Baughman, 2006; Stolzer, 2008). The vast majority of "disordered" students are found in the public school system, with males disproportionately diagnosed and medicated. The highest rates of psychiatric disorders are clustered among children who are eligible for Medicaid insurance and those who are multi-racial. In addition, ADHD diagnosis vary significantly across America, with California reporting the lowest rates (2.1%), and North Carolina reporting the highest rates (15.6%) (Centers for Disease Control, 2011).

While prevalence rates of ADHD continue to soar across America, longitudinal data has indicated that being diagnosed and drugged for ADHD causes a plethora of unexpected problems. According to the 2009 Raine Study, children with a diagnosis of ADHD perform significantly worse at 14 years old on measures of depression, self-perception, social functioning, academic performance, school enjoyment, and attention that those without a diagnosis. Furthermore, data from this study demonstrated that children receiving stimulant medications were found to perform at a below-age level by a factor of 10.5 times when compared to same age peers who were not receiving stimulant medications. Data contained in this study also found that externalizing behaviors and attention problems do not improve significantly with the use of stimulant drugs (Government of Western Australia, 2009).

In spite of the fact that life has changed dramatically over the last 10,000 years, human brains evolved in particular ways in order to adapt to environmental contingencies encountered throughout evolutionary time. Humans have lived as part of the hominid species under the influence of particular cultural constraints for 10,000-12,000 years, which according to evolutionary psychologists, is not a long enough time period to have significantly altered the way the brain functions (Bjorklund & Pellegrini, 2002). Our evolutionary past is still with us today, and this fact is glaringly evident in the modern-day school system. Young males, across mammals and across evolutionary time, have never been known to be sedentary. Hunting, combat, roaming large areas, and heightened switching of attentional focus were, and continue to be, the hallmarks of the young male. From an evolutionary perspective, the American public school system is at odds with the males' bioevolutionary history as the majority of tasks required in schools have no relationship whatever to the ancient environments encountered by primordial males (Brown & Bjorklund, 1998). Geary (1995) refers to those human attributes that were selected during evolution as "biologically primary abilities," and include such things as heightened activity level, hunting, protectiveness, and engaging the fight-or-flight response. Conversely, "biologically secondary abilities" are culturally constructed and require memorization, tedious repetition, external motivation, and are not related in any way to the survival of the fittest, or in particular, to natural selection.

Modern day school systems mandate biologically secondary abilities, including inordinate amounts of extended seat work, prolonged periods of attentional focus on the boring and mundane, docility, rote memorization, and regurgitative learning (Bjorklund & Pellegrini; Stolzer, 2010). This unnatural focus on biologically secondary abilities, which is rampant in the American

school system, conflicts with the young males evolutionary based tendencies towards rough and tumble play, nature exploration, dominance hierarchies, and heightened activity levels, and has been correlated with the high incidence of learning and/or behavior disorders in young males (Bjorklund & Pellegrini, 2002; Jensen, et al, 1997; Stolzer, 2008).

As a direct result of the sweeping acceptance of feministic theory across America, many individuals believe that it is the female student that is at a distinct disadvantage in the modern day public schools system, yet there exists no peer-reviewed, scientific evidence to substantiate this claim (Stolzer, 2008). Data from the United States Department of Education (2010) confirms that female students 1. receive better grades from Kindergarten through 12th grade in all subject matters, 2. are enrolled in more rigorous academic programs in high school, 3. outnumber males in advanced placement classes, 4. have higher academic aspirations then males, 5. are more likely to study abroad, 6. are more likely to attend college, 7. are more likely to be an honor society participant, and 8. are more likely to receive an associate degree, bachelor's degree, master's degree, Ph.D, and medical degree (Peter & Horn, 2006; US Department of Education, 2010). Furthermore, young males are significantly more likely to be diagnosed as learning and/or behaviorally disordered, to be prescribed psychotropic medication, to be suspended from school, to re-take a grade, to drop out of high school, to engage in criminal activity, to engage in substance abuse, and are significantly more likely to commit suicide (Breggin, 2002; Stolzer, 2008; US Department of Education, 2010).

Numerous researchers have questioned the validity and reliability of psychiatric diagnoses in young males, and have pointed out that fidgeting, defiance, the inability to remain seated, excessive running, jumping and/or climbing, and the inability to pay attention to that which bores them are not indicators of psychopathology, but rather are normal, evolutionary based developmental processes that occur in young males across cultures, across mammals, and across historical time (Baughman, 2006; Breggin, 2002; Panksepp, 1998; Stolzer, 2010). There is no doubt that these historically documented boy behaviors are in direct conflict with the expectations of the modern day public school system. Contemporary public schools require docility, passivity, extended seat work, and inordinate amounts of attention to the boring and mundane- attributes which have never been recorded in young males at any time in the scientific record. Couple these expectations with the sweeping reduction in recess and physical education classes, the pervasive indoctrination of feminism and behaviorism across teachers colleges, the lack of understanding of esoteric gender differences (neurological, social, intellectual, and emotional), overcrowded class rooms, the financial incentive to label children with learning and/or behavior disorders, and the widespread acceptance of a pseudo-theory that defines normal-range boy behaviors as "psychiatric disorders", and one can clearly see how we as a culture have been deluded into accepting the legitimacy of the "Disordered American Boy" hypothesis.

Brain Research

For decades, feminists and behaviorists have been asserting that the multifarious gender differences that have been documented across the globe are merely reflections of societal conditioning. According to this reductionistic hypothesis, gender is simply a social construct that can be shaped and molded at will. However, with the advent of the MRI, the CAT scan, and the PET scan, empirical, quantitative data has demonstrated that there are significant differences in the neurological

functioning of male and female brains. While it is certain that outliers exist, the fact remains that for the majority of human beings, male and female brains are hard-wired quite differently (Bear, Connors, & Pardiso, 1996; Donaldson and Young, 2008; White, 2005).

Research has confirmed that the basal ganglia, which controls movement, is engaged more rapidly in males. The pre-frontal lobes, which have been empirically linked to impulsivity control, are not fully developed in males until 20-23 years of age. In addition, the fight or flight response is more aggressively and rapidly engaged in males, and the amygdala, which is associated with aggressive outbursts and alerting the brain to danger, is significantly larger in males (Donaldson & Young 2008; Gurian, 2001). Mounting scientific data continues to dispel the very core of the feminist/behaviorist agenda, which is to perpetuate the scientific fallacy that males and females are essentially the same- neurologically, socially, psychologically, and cognitively.

It is an undisputed fact that all human fetuses begin life as a female. Sex differentiation occurs only when the maternal ovaries flood the fetus with large amounts of the hormone testosterone, thus resulting in the biological male. This flood of testosterone dramatically alters the fetus, and in doing so, forever encodes particular developmental, neurological, hormonal, and psychological attributes into the developing male (White, 2005). During puberty, the male body is once again flooded with testosterone, and for the second time, the male undergoes immense physiological, hormonal, neurological, and cognitive changes (Gurian, 2001). For years scientists asserted that the sex chromosomes (male, xy, female, xx) were responsible for the numerous gender differences that can be documented. However, later research confirms that it is not the sex chromosomes, but the vastly different gonadal secretions that occur during fetal life that are responsible for gender differences in the brain (Carruth, Reisert, & Arnold, 2002).

While it is true that males and females possess all of the occurring human hormones, estrogen and progesterone are the dominant female hormones, while testosterone is the dominant male hormone. Theses distinct hormones effect all of the neurological systems, and in doing so, create the vast gender differences that have been documented across cultures and across mammalian species (Buss, 2004). According to published data, testosterone increases aggression, competition, self-assertion, self-reliance, defiance, and territoriality (Jensen, et al, 1997). At around 10 years of age, testosterone levels in young males rise and fall dramatically over the course of a day, which often times results in aggression, defiance, and competitive drive. By adolescence, the average male has 20 times more testosterone then the average female (Gurian, 2001). Researchers have found that distinct hormones affect behavior patterns in clear and measurable ways. It has been documented that prenatal testosterone has a significant effect on increasing risky behavior, movement, and physical reflexes (Arnold, 2009). In addition, testosterone levels have been found to influence the divergent play behaviors that have been documented in boys and girls (Auyeung &Baron-Cohen, 2009). Girl play tends to be socioemotionally focused, while boys tend to exhibit rough and tumble play styles that involve more bodily contact, dominance, and continual physical activity (Gurian, 2001). As a direct result of these distinct play differences, children segregate by gender across the globe (Bjorklund & Pellegrini, 2002).

During the early 1960's, it was hypothesized that the function of child's play is to prepare them for adult roles. However, more recent research suggests that it is distinct neurological differences that resulted from millions of years of natural selection that have produced the profound differences in boy and girl play styles (Bjorklund & Pellegrini, 2002). Evolutionary contingencies play a monumental role in shaping male learning, play, and behavior, and have for millions of years endowed males with attributes that were not only highly sought after, but ensured the survival of the human species (Buss, 2004). Although these unique male attributes can be scientifi-

cally documented, we are now immersed in a medical paradigm which pathologizes male learning and behavioral patterns, and has resulted in the labeling and drugging of millions of young males across America (Baughman, 2006; Stolzer, 2010). Perhaps the time has come to overtly challenge those theories which refuse to acknowledge the anthropological, neurological, and bioevolutionary data. It is time now in the 21st century to understand and respect that males and females are inherently different- neurologically, emotionally, cognitively, and socially, and to demand an end to politically correct hypotheses which cannot be scientifically validated.

The Diagnostic and Statistical Manual of Mental Disorders (DSM IV)

ADHD

According to the latest Diagnostic and Statistical Manual IV (2000), the major symptoms of ADHD include; inattention, fidgetiness, squirming in one's seat, not remaining seated when expected to do so, excessive running, jumping or climbing, difficulty playing quietly, appearing to be "on the go" or as if driven by a motor, and talking excessively (p. 86). Symptoms of this "disorder" typically worsen in environments that require sustained attention and that lack intrinsic appeal (e.g., listening to the teacher, doing assignments, or working on monotonous, repetitive tasks). According to the DSM IV, symptoms of this "disorder" are minimal or absent when the child is receiving frequent rewards for appropriate behavior, is under close supervision, is in a novel setting, or is engaged in especially interesting activities (p. 86-87).

This is abject lunacy. What the American Psychiatric Association has done is to create a disease out of a cluster of behavior patterns that only 25 years ago was called "boyhood". Across all cultures, across all historical time periods, and across every mammalian species, the young male fidgets, is inattentive, squirms, runs, jumps, climbs, and appears to be "driven by a motor". Symptoms worsen in environments that are boring, monotonous, and lack intrinsic appeal? Then perhaps we should consider doing away with boring, monotonous classrooms that do not meet the cognitive, social, and physical needs of boys. This solution seems much more humane then the current cultural practice of dosing boys with dangerous and addictive drugs on a daily basis for years on end in order to alleviate normal-range boy behaviors. Clearly, young males engage in behaviors that exacerbate the average adult- of this, there can be no question. However, to operationally define these historically documented boy behavior patterns as a "psychiatric disorder" is not only scientifically fallacious, it is an affront to human intelligence.

Conduct Disorder

The symptoms of "Conduct Disorder" as outlined in the DSM IV (2000) are as follows; "aggressive conduct, nonaggressive conduct that causes property damage, deceitfulness, theft, and/or violation of rules" (p. 94). The DSM IV states that the child with conduct disorder is "likely to minimize their conduct problems, so the clinician must rely on additional informants" (p. 94). Other symptoms of conduct disorder include bullying, frequent fighting, and intimidating behavior. Children are diagnosed with 1. mild conduct disorder (few, if any conduct problems in excess, which include lying, truancy, and staying out after dark without permission), 2. moderate conduct disorder (the number of problems and the effect on others are intermediate between mild and severe), and 3. severe conduct disorder (many conduct problems in excess of those required to make the diagnosis are present) (p. 95).

The above diagnostic criterion are highly subjective, and are open to individual interpretation. What is the operational definition of "few"? What exactly does "intermediate between mild and severe" mean? And how does one quantify "in excess"? Do clinicians take into account envi-

ronmental factors that may precipitate symptoms of "Conduct Disorder" (e.g., living in particular environments where threatening and aggressive behavior is most certainly self-protective)? Are any of the clinicians diagnosing "Conduct Disorder" familiar with the literature that documents that aggressive, threatening, and territorial behavior is normative in young males across cultures and across mammalian species? "Normative" does not imply that these types of behavior patterns do not require swift and severe consequences. The term "normative" simply means that there is no pathology present in males who exhibit these behaviors patterns as these types of behaviors have been documented for hundreds of years in scientific literature. The DSM IV (2000) states that Conduct Disorder has increased significantly over the last decades, and is much more prevalent in urban settings, and in young males. Furthermore, "Conduct Disorder is one of the most frequently diagnosed conditions in outpatient and inpatient mental health facilities for children" (p. 97).

Across cultures, across time, and across mammalian species, young males have engaged in aggressive acts, bullying, theft, destruction of property, fighting, and intimidating acts. With regard to humans, laws were written so that the above mentioned behaviors could be prosecuted in criminal courts. Throughout recorded human civilization, if a person broke a law, the person was tried according to the law of the land, and if convicted, the person was sentenced for their offense. They were not labeled as "psychiatrically disordered" nor were they required to take psychiatric drugs, or to be hospitalized in a mental institution for their "disorder". Clearly, in modern day America, we have moved away from the "punishment fits the crime" model (i.e., the criminal justice model), and are now immersed in the perilous and unpredictable world of psychiatric labeling, which includes daily doses of dangerous and addictive psychiatric drugs, and a lifetime sentence of being labeled as "psychiatrically disturbed", as once a psychiatric label is affixed, it is permanent (Baughman, 2006).

Oppositional Defiant Disorder

According to the DSM IV (2000), Oppositional Defiant Disorder is defined as a pattern of negative, hostile, and defiant behaviors lasting at least 6 months, during which four or more of the following are present:

1. Loses temper
2. Argues with adults
3. Often refuses to comply with adults' requests
4. Deliberately annoys people
5. Often blames others for his mistakes
6. Is often touchy or easily annoyed by others
7. Is often angry and resentful
8. Is often spiteful or vindictive (p. 102).

The hallmark of this "psychiatric disorder" is a recurrent pattern (lasting at least 6 months) of defiant and disobedient behavior directed toward an adult authority figure. Stubbornness, resisting directives, and an unwillingness to "give in" to adults or peers are also, according to the DSM IV (2000), indicators of "Oppositional Defiant Disorder". "Manifestations of this disorder are almost invariably present in the home setting, but may not be evident at school or in the community. Symptoms of this disorder are typically more evident in interactions with adults or peers whom the child knows well, and this may not be apparent during clinical examination" (p. 100).

By the DSM's own admission, "Oppositional Defiant Disorder is a "disorder" that comes and goes, depending on the people that the child or adolescent is surrounded by. Theoretically,

this disorder is totally and 100% curable if the child remains in the company of those who do not provoke "oppositional defiant" response patterns. Furthermore, this criterion is highly subjective, and would most certainly vary depending on the individual rater. Four of these behaviors and a child has "Oppositional Defiant Disorder"? If he displays three of these behaviors, he does not have the disorder? Clearly, this type of diagnostic criteria is simplistic and relativistic at best, and at worst is medical fraud due to the lack of reliability and validity of diagnostic procedures. What is the current medical recommendation for having the audacity to be defiant, disobedient, and stubborn? The answer is an official psychiatric label coupled with daily doses of psychiatric drugs that will synthetically alter the brain so as to induce conformity, docility, and passivity.

Risks Associated with Psychotropic Drugs

The overwhelming majority of American boys who are labeled with a psychiatric disorder are prescribed daily doses of psychotropic drugs in order to control undesirable behaviors (Baughman, 2006; Stolzer, 2010). While it is certainly easier to medicate millions of boys then to address the multifarious correlates related to the behaviors that have recently been defined as "psychiatric disorders", the fact remains that there are serious adverse effects associated with the use of psychotropic drugs. All classifications of psychotropic medications are classified as Schedule II drugs along with morphine, heroin, cocaine, and methamphetamine, as these drugs have been proven to be extremely addictive and to cause a wide range of physiological atrophy (Baughman, 2006; Breggin, 2002). Following is a listing of the side effects associated with psychotropic medications prescribed to children and adolescents: disorientation, weight loss or weight gain, personality changes, apathy, social isolation, depression, insomnia, increased blood pressure, cardiac arrhythmia, tremors, weakened immune system, agitation, fatigue, visual disturbances, drug dependency, nervousness, aggression, liver dysfunction, heptic coma, angina, mania, irritability, anxiety, hostility, muscle spasm, seizures, suicidal ideation, homicidal ideation, and drug induced psychosis (Breggin & Cohen, 1999; Novartis Pharmaceutical Corporation, 2012; Stolzer, 2010).

Unexplained death is another adverse reaction that has occurred, particularly among young males and those individuals who are chronically hospitalized in mental institutions (Breggins & Cohen, 1999). It is imperative that the doctrine of informed consent is implemented so that each patient (or parent of the patient) is fully aware of the risks associated with psychotropic drugs. With millions of young males currently labeled and drugged for psychiatric illnesses that did not even exist a generation ago, we can no longer afford to remain in blissful ignorance concerning the plethora of dangerous side effects associated with these classifications of drugs. (For a further review of the risks associated with psychotropic medications, see *The Physician's Desk Reference* Manual).

Conclusion

Modern day Americans are the first human beings in recorded history to witness the mass psychiatric labeling and drugging of children and adolescents. Never before have human beings intentionally inundated the developing human brain with psychiatric medications in order to control undesirable behavior patterns. In spite of the overwhelming scientific evidence that documents that the developing brain is more susceptible to the adverse effects of psychiatric medications, and that the earlier a drug is introduced, the higher the potential for adverse effects, we continue to witness a meteoric rise in prescriptions for psychiatric medications across America, particularly in young males (Baughman, 2006; DeGrandpre, 1999; Stolzer, 2005).

First and foremost, we must recognize the illegitimacy of the most commonly diagnosed "psychiatric disorders" in young males. Attention Deficit Hyperactivity Disorder? Or is it simply being a young mammalian male who has a short attention span, delights in running, jumping and climbing, refuses to pay attention to the boring and mundane, and is on the go constantly, as if "driven by a motor"? Throughout recorded history, young males have been exuberant, inattentive, highly active, fidgety, squirmy, loud, easily distracted, and messy (Breggin, 2001). This is not a "chemical imbalance" of the brain that requires dangerous and addictive drugs. This is boyhood in all of its messy, running, jumping, climbing and inattentive glory. Take heed, this stage will not last forever. In its place will emerge the tired, conforming, focused, workaholic man who longs for the days of unbounded, inattentive, energetic rough and tumble exuberance that he knew once upon a time.

Conduct Disorder? Oppositional Defiant Disorder? According to the bio-psychological literature, symptoms of these disorders actually are beneficial in many instances. Boys learn differently than girls, and in the case of dominance posturing and rough and tumble behaviors, boys are learning social signaling, assessment of other individuals competence and strength, and are learning how to establish leadership roles (Pellegrini & Smith, 1998). Male children and adolescents respond differently to environmental stimuli, and according to evolutionary developmental psychologists, these distinct male behaviors are apt to be misinterpreted by those who lack an intrinsic understanding of bioevolutionary-based behavior patterns (Bjorklund & Pellegrini, 2002).

Other studies suggest that with regard to young males, dominance behaviors are found across all cultures and across all mammalians species. These behaviors, through admittedly not valued in the current day public school system, have been significantly correlated with popularity (Vaughn, 1999; Pellegrini & Bartini, 2000). Interestingly, cooperation and conflict resolution are more common in young males in "open field situations" (where young males feel free to leave the group at any time). Conversely, when young males feel that they are "in a corner" or that they are trapped in a particular environment, aggressive behaviors escalate (Bjorklund & Pellegrini, 2002).

Numerous scholars have postulated that aggressive behaviors play a critical role in the evolution of social intelligence (Cummins, 1998). In order for young males to develop optimally, they must understand where their place is relative to others, and it is crucial that they learn what behaviors are acceptable and what behaviors warrant a consequence. In addition, researchers have documented that aggression is not in and of itself pathological, but rather, has been highly adaptive over the course of evolutionary time (Cummins, 1998). Aggressive, defiant, and dominant behaviors are extremely common throughout the mammalian kingdom, and are typically displayed to try and establish leadership within a particular group. It is normative for young human males to desire a leadership role, and to compete fiercely for resources (both tangible and intangible). According to published data, once the dominance hierarchy is clearly established, that is, there is no longer a question of who the leader is, rates of male aggression decrease significantly (Strayer & Noel, 1986).

Since its inception, bioevolutionary theory has looked to the construct of the survival of the fittest to explain aggression in young males. According to the DSM IV (2000), aggression, defiance, dominance posturing, temper flares, and noncompliance are indicators of a "psychiatric disorder". However, for over 150 years, the scientific literature has documented that natural selection would *clearly* favor those males who used aggression most effectively to secure various resources, to procure leadership positions, and to continue their genetic line (Bjorklung & Pellegrini, 2002).

It is well known that males are more physically and verbally aggressive than females (Maccoby, 1998). Conversely, females have been documented to use relational aggression at much higher rates than their male cohorts, but currently, the members of the American Psychiatric Association (APA) have not, as of yet, voted that these females behavior patterns are indicative of a

psychiatric disorder. Female aggression patterns typically involve gossip, nonverbal cues, ostracizing of other females, rumors, and intentional damaging of other's reputations. While male aggression is more physical in nature, female aggression lasts for longer durations, and in many cases, continues for years unabated (Cricks & Grotpeter, 1995).

Researchers have postulated that these divergent styles of aggression are due to distinct bioevolutionary, neurological, and hormonal contingencies that have been documented across cultures and across historical time (Maccoby, 1998). It is only recently that male behavior patterns have been operationally defined as "psychiatric disorders", but fortunately, this newly formed "Disordered Boy Hypothesis" has not gained widespread acceptance in other cultures nor have biologists, zoologists, or ethologists accepted this hypothesis with regard to non-human mammals.

It is an absolute certainty that the behaviors that the DSM IV has classified as "psychiatric disorders" exist, of this there can be no doubt. Running, jumping, inattentiveness, squirming, fidgeting, defiance, and aggression are behaviors that young males have exhibited since the beginning of the hominid species. Furthermore, these behaviors have been documented across all cultures and across all mammalian species (Buss, 2004; Jensen, et al 1997; Stolzer, 2008). What *has* been altered dramatically over the last 20-30 years is the collective definition of what constitutes normative boy development. Americans have accepted unequivocally the "Disordered Boy Hypothesis" and the plethora of psychiatric drugs that have been put forth to remedy the "chemical imbalance" that causes these "disorders". Let us remember that there are absolutely no confirmatory neurological, metabolic, cognitive, or physical abnormalities present in the boy who has been diagnosed with a psychiatric disorder (Baughman, 2006; Breggin, 2001; Jensen, et al, 1997). The only diagnostic tool available is a subjective checklist of behaviors, behaviors that were for the vast majority of human history, considered to be normal.

According to pediatric neurologist Baughman (2006), boys who are diagnosed with a psychiatric disorder are normal in every sense of the word, that is, until psychiatric drugs are introduced, after which time neurological atrophy occurs. Baughman (2006) is adamant that in order to diagnosis a medical condition, a physical abnormality must be present (i.e., there must be evidence of an abnormal phenotype) as this is how diseases are confirmed throughout the scientific community. With regard to boy disorders such as ADHD, Oppositional Defiance, and Conduct Disorder, there is no confirmatory diagnostic test, nor is the specific etiology of any of these disorders known at this time (Breggin, 2002; Novartis, 2012). Furthermore, there exists no longitudinal data that can confirm the effectiveness of psychotropic drugs in child and adolescent populations, nor has the safety of these drugs been established in controlled trials (Baughman, 2006; Novartis, 2012).

The "psychiatric disorders" that millions of American boys have been diagnosed with were not discovered by science as is the case with all legitimate diseases. Rather, ADHD, Conduct Disorder, and Oppositional Defiant Disorder were *voted* into existence by the American Psychiatric Association's committee members (Baughman, 2006). Interestingly, the "psychiatric disorder" known as homosexuality was voted into existence, and was included in the DSM until it was voted out of existence in 1978 (Breggin & Cohen, 1999). Legitimate disorders that can be voted in and out of existence? This is ludicrous. Physicians, researchers, clinicians, parents, and concerned others must demand that the field of medicine is driven by empirical, quantitative data, not by pseudo- science that is rooted in political correctness and economic gain.

Perhaps Americans actually prefer the chemically altered boy brain over the non- chemically altered boy brain (Breggin, 2002). Young males have, over the course of historical time, engaged in behaviors that frustrate and aggravate adults, particularly when large groups of young males congregate together, as is the case in the vast majority of public schools across the country. We can continue to define boy behaviors that irritate adults as "psychiatric disorders" if we so wish. We can continue drugging millions of American boys in order to alleviate inattentiveness,

fidgeting, squirming, defiance, aggression, running, jumping and climbing- but at what cost? The pharmaceutical companies, the medical establishment, and the public school system all profit economically from the Disordered American Boy hypothesis, while the boys themselves suffer neurologically, socially, cognitively, and emotionally (Baughman 2006; Breggin, 2001; Government of Western Australia, 2009).

"Disordered American Boy"? Or could it be our newly constructed disordered American culture that is immersed in the medical model, attachment deprivation, feminist/behaviorist theory, and frenzied schedules? Couple these factors with nature deprivation, the lack of understanding of bioevolutionary processes, the pervasive dismissal of neurological data, the lack of teacher training in esoteric gender differences, and an economic incentive to label children with a myriad of psychiatric disorders, and it is clear why the majority of Americans have accepted the "Disordered American Boy" hypothesis without reservation. Curiously, it has taken the most affluent, most highly educated civilization the world has ever known to decree that boyhood is a disease, and that psychiatric drugs are the cure. Perhaps the time has come to challenge this decree. Our boys are counting on us.

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