



THE PREHISTORY OF ADHD: ADDITIVES FOR AN UNTENABLE DIAGNOSIS

Fernando García de Vinuesa Fernández

Private research

Para defender la validez diagnóstica del TDAH la literatura especializada emplea generalmente un argumento histórico, según el cual dicha validez resultaría indiscutible debido al hecho de que diversas fuentes médicas hablaban ya del TDAH hace varios siglos; esto demostraría que el TDAH no es una creación de nuestro tiempo. Sin embargo, al investigar esas mismas fuentes históricas, se puede comprobar lo injustificado de ese argumento, que contribuye aún más al descrédito de este constructo psiquiátrico tan controvertido. Se analizan en el presente artículo tres "hitos" de la llamada historia o prehistoria del TDAH: Alexander Crichton, Heinrich Hoffmann y George F. Still. El TDAH, al contrario de lo que defiende la literatura dominante, es un invento moderno, y el uso de los argumentos históricos revela su mítica base teórica y una escasez de argumentos que debería ser muy alarmante, debido al número de niños diagnosticados y medicados de TDAH.

Palabras Clave: TDAH, Prehistoria, Inquietud mental, Der Struwwelpeter, Defecto mórbido de control moral.

In order to defend the diagnostic validity of ADHD, the specialized literature tends to use a historical argument, according to which its validity is unquestionable due to the fact that a number of medical sources have referred to ADHD for several hundred years. This proves that ADHD is not a contemporary creation. However, when investigating those same historical sources, it is possible to prove that these arguments are unfounded, which contributes even more to undermine this highly controversial psychiatric construct. This paper analyzes the three classic "milestones" of the so-called history or prehistory of ADHD: Alexander Crichton, Heinrich Hoffmann and George F. Still. Contrary to the claims of the dominant literature, ADHD is a modern invention and the use of these historical arguments reveals its mythical theoretical basis and lack of supporting arguments, which should be a cause for serious concern, due to the number of children being diagnosed and medicated for ADHD.

Key words: ADHD, Prehistory, Mental restlessness, Der struwwelpeter, Morbid defect of moral control.

In 1980 the American Psychiatric Association (APA) deemed that the child often easily distracted, who has difficulty concentrating on his homework, who needs telling off often at home or who climbs on the furniture showed symptoms of mental disorder. This opinion could have had little repercussion, since those very behaviors are pertinent when defining childhood itself. However, the opinion of the APA entered the third edition of its *Diagnostic and Statistical Manual of Mental Disorders*, the *DSM III*, reason enough for attention deficit hyperactivity disorder (ADHD) to be born (DSM, 1983).

The new diagnosis brought with it a controversy that was difficult to quell. How is it that, among other no less shocking things, the symptoms of the child affected by ADHD –according to the APA– "may not be directly observable by the clinician" (APA, 1983)? Due to the very definition of ADHD –a list of behaviors that, whilst

annoying, are still typical of many healthy children (the associated symptoms included subjective judgments such as "obstinacy, stubbornness, negativism, vulgarity, boast, etc. and a lack of respect for discipline")– the idea of ADHD as a valid diagnosis has been "strongly and destructively criticized" (e.g., Shaffer, 1980; Sandberg, 1981; Rutter, 1983; Prior & Sanson, 1986; cited by Sagvolden & Archer, 1989) since its creation. These criticisms, however, have not prevented ADHD from becoming "the most common psychiatric illness in school age" (San Sebastián, Soutullo & Figueroa, 2010, p. 76).

Thirty-six years after the creation of ADHD, the APA continues to maintain the diagnosis in its current *DSM 5*: *makes careless mistakes in schoolwork, does not finish schoolwork, has difficulty organizing schoolwork, is unenthusiastic in doing homework, is easily distracted by extraneous stimuli, forgets his/her homework, gets up in class* (APA, 2013). The APA is committed to a definition of ADHD that is very reminiscent of something like doing badly at school, no matter what the reason.

How has a diagnosis, the validity of which can be debunked in about five seconds (Whitaker, 2016), grown to become the most popular of childhood diagnoses?



And, requiring even more urgent an answer, how can this diagnosis be justification for daily treatment with amphetamines and other potent drug stimulants, in children whose brains are still forming?

ADHD'S LETTER OF PRESENTATION: A DISORDER WITH A LONG HISTORY

When dealing with the specialized literature, one finds that ADHD is usually presented as a disorder with a long history (Barkley, 2002; Priece, 2006; Ramos Quiroga, Bosch & Casas, 2009). With this centennial presentation, the parent, professional or student may reasonably begin thinking that humanity has spent centuries struggling with this disorder, and that medicine has been aware of its existence since ancient times. It is worth mentioning, firstly, that the parents of diagnosed children –to whose concerns much of the disclosure of ADHD is directed– find a first reason for relief in these explanations: their children are receiving a diagnosis that has not been nor does it come close to having been invented –despite the noise surrounding it– because to begin with it is not new, but an old acquaintance of the science of mental health.

Questioning ADHD and its associated psychiatric drugs is often described as a product of mythical beliefs (Guerrero, 2016), far removed from the science upon which ADHD is supposed to rest, and the fact that the first descriptions of its diagnosis are very old is proof that these criticisms of the validity of the diagnosis are based on myths.

The Spanish Federation of Aid Associations for Attention Deficit Hyperactivity Disorder (FEAADAH) in the "frequently asked questions" section on its website chooses to answer this question first: "Is ADHD an invented disorder?" And the answer leaves no room for doubt: "No. ADHD was first described in a scientific publication in 1902, not long after disorders such as schizophrenia or bipolar disorder" (FEAADAH, 2016). For its part, Maria Jesús Sanz Mardomingo, a specialist in child psychiatry and an expert on ADHD, thinks that "one of the characteristics of our time is the difficulty in recognizing that children suffer from psychiatric illnesses. [...] ADHD is not free of this controversy, despite the fact that the first descriptions of clinical symptoms begin to appear in the medical literature over two hundred years ago" (Guerrero, 2016, p. 364).

HISTORY ACCORDING TO THE BEST TREATISE ON ADHD

TDAAH. Entre la patología y la normalidad [ADHD. Between pathology and normality] (Guerrero, 2016) by psychologist Rafael Guerrero, one of the latest popular

books on ADHD published in Spain, is in the words of neuroscientist Joaquín Fúster "the best treatise on ADHD that has been written so far in the Spanish language" (Guerrero, 2016, p.19). After the book's foreword, written by psychiatrist Luis Rojas Marcos, the first chapter begins with the title "A Brief History of ADHD". In the first few lines, the author explains that although ADHD is now on everyone's lips, the diagnosis "has a longer history than we can imagine" (Guerrero, 2016, p. 39).

"Historically speaking," begins the author of the book, "we find the first writings on ADHD in a study by Scottish author **Alexander Crichton**, dating back to **1798**. In this study, entitled *An inquiry into the nature and origin of mental derangement*, Crichton described the symptoms of what we now know as inattentive ADHD. He gave this the name of "mental restlessness", and put the emphasis on the afflicted children's difficulty in paying attention properly."

In a new paragraph, the author continues: "In **1845**, the German **Heinrich Hoffmann**, a psychiatrist, writer and illustrator of stories, published the book *Der Struwwelpeter* (Shock-headed Peter), a compilation of ten stories about different childhood problems and pathologies. One of these stories is called "Fidgety Philip" and describes the problems of attention and hyperactivity of this child."

And a little further down we read: "In **1902**, **George Still**, an English physician, published an article in the prestigious journal *Lancet* which describes a group of children with a range of symptoms much like what we now call ADHD combined type [...] This is **the first scientific description** of ADHD" (Guerrero, 2016, pp. 39-41).

These three classic references are the ones most used by the specialist literature in its attempt to ground ADHD on a historical foundation. But these foundations, upon which it is intended to basis the diagnosis, are they solid?

1798: ALEXANDER CRICHTON

Alexander Crichton (1763-1856) wrote *An inquiry into the nature and origin of mental derangement* (Crichton, 1798) "in an attempt to reduce, under certain fixed principles, a number of loose facts, which abound in the writings of medical men, metaphysicians and philosophers of different ages and of various countries" (Crichton, 1798, preface, p. 1). His method of research is the "analysis". If one works by analysis, one can discern each constituent element and examine it separately; this is the only way to arrive at "well-founded results" (Crichton, 1798, preface, IX).

The work is divided into three books: the first on the



physical causes of delirium; the second on the natural history of mental faculties and a description of the diseases that affect them; the third book on passions and their effects. It is in the second book that we find the chapter that has allegedly concerned a large number of those who have written about the history of ADHD, "On attention and its diseases".

The chapter starts like this: "When any object of external sense, or of thought, occupies the mind in such a degree that a person does not receive a clear perception from any other one, he is said to attend to it." Crichton begins by establishing firstly that the faculty of attention is "parent of all our knowledge" (Crichton, 1798, pp. 254-255). It is a faculty that is conditioned by everyday reasons as diverse and understandable as fatigue, indigestion after a heavy meal, or weakness resulting from disease.

With regard to young people's attention –a central aspect to our research aim–, for the Scottish doctor it is a "melancholic reflexion" that many young people who, "previously to the commencement of what is called education, appear to be endowed with the finest minds, and who exhibit a quickness of apprehension and a docility under tuition, which would secure to them an easy conquest in the pursuits of fame, if they were managed with sufficient skill". However, they "fall early victims to mental fatigue, or else acquire a great disgust for instruction, merely because the proper stimuli for captivating their attention have not been found out in time" (Crichton, 1798, pp. 267-268).

The role of educators in growing children's attention seems decisive to Crichton:

It unfortunately happens that the mental treatment of youth, not only at schools and academies, but also at home, is generally the same for all boys. That of girls is subject to a similar fault. The peculiar *idiosyncrasies* or dispositions of each individual, are seldom sufficiently attended to. [...] the natural bent of mind ought not to be forcibly thwarted, or left neglected.

Crichton, 1798, p. 277-278

He advocated allowing children to pursue their individual inclinations, for this would forge the habit of attention, which, once developed and strengthened, could then be "easily directed to other things of more consequence" (Crichton, 1798, p. 279).

Mental Restlessness

There are basically two types of morbid alterations of attention, according to Crichton: 1. The incapacity of

attending with a necessary degree of constancy to any one object; 2. A total suspension of its effects on the brain.

The incapacity to pay attention with the necessary degree of constancy to any one object means that attention is "incessantly withdrawn from one impression to another". The individual is either born with it or it can be the result of an accidental disease.

- a. When the person is born with it, it becomes obvious at a very young age and has a very negative effect because it prevents the person from being capable of paying attention with constancy to any object of their education. "But it seldom is in so great degree as totally to impede all instruction and what is very fortunate, it is generally diminished with age" (Crichton, 1798, p. 271).
- b. When it arises due to accidental diseases: the inability to pay attention with a sufficient degree of constancy "accompanies every nervous disorder", especially hysteria. Stomach ailments, chlorosis and hydrophobia also induce it.

In this disease of attention, if it can with propriety be called so, every impression seems to agitate the person, and gives him or her an unnatural degree of **mental restlessness**. People walking up and down the room, a slight noise in the same, the moving a table, the shutting a door suddenly, a slight excess of heat or of cold [...] The barking of dogs [...] are sufficient to distract patients of this description to such a degree, as almost approaches to the nature of delirium. It gives them vertigo, and headache, and often excites such a degree of anger as borders on insanity. When people are affected in this manner, which they very frequently are, they have a particular name for the state of their nerves [...] They say they have the *fidgets*.

Crichton, 1798, p. 272, emphasis in bold our own

AN IMPRUDENT SYNONYMY

The great confusion that reigns concerning the figure of Alexander Crichton and his 1798 book in relation to ADHD, is rooted in a 2001 article by Erica D. Palmer and Stanley Finger, in which they equated ADHD with the term "mental restlessness" used by Crichton. It was the British physician, according to these researchers at the University of Washington, "almost two centuries ahead of his time in his conceptualisation of what is now known as the Inattention subtype of ADHD" (Palmer & Finger,



2001, p. 71). The authors argued that it was unfair to begin the history of ADHD with George Still in 1902, because the pioneer in identifying ADHD was Alexander Crichton in 1798. The thesis of the researchers was greeted with enthusiasm, and today, fifteen years later, it is still used as a support for ADHD (Martínez-Badía & Martínez-Raga, 2015).

Crichton's concept of mental restlessness has been appropriated by much of the literature that has sought to equate it with the concept of ADHD (see, e.g., Martínez-Raga and Martínez-Badía, 2015, p. 383), which is hardly justifiable because, as the psychiatrist Daniel Matusevich points out, these conclusions "were formulated based on a minimal number of observations" (Matusevich, 2015). In addition, this concept, for Crichton, referred to people suffering from various diseases, which caused them an "attention disease" as a result (Crichton, 1798, p. 273). ADHD, on the other hand and according to the experts, cannot be caused (Gamo, 2010). ADHD sufferers are "born, not made" (Guerrero, p. 340).

Far from being a one-off mistake, there is copious literature that presents the history of ADHD using Crichton inappropriately. In the *Programa de Formación Continuada en Pediatría Extrahospitalaria [Continuing Education Program in Outpatient Pediatrics]* published in *Pediatría integral [Comprehensive Pediatrics]* it says that "in 1798 a Scottish physician, Sir Alexander Crichton (1763-1856) briefly described what appears to be a case of ADHD inattentive subtype [...] He described a type of patient without idiocy, with "agitation" and mental and motor restlessness arising from a severe lack of sustained attention, and how this hindered their schooling" (Quintero & Castaño de la Mota, 2014, pp. 600-601).

In his chapter on attention, however, Crichton does not describe the case of any child (even though, as we noted before, the study *TDAH. Entre la patología y la normalidad [ADHD. Between pathology and normality]* also related mental restlessness with attention difficulties in "youngsters").

Not only he did not describe any child patient, neither did the Scottish physician relate mental restlessness with difficulty in schooling. Instead, on the subject of difficulties in schooling, he held that pedagogy and education were responsible more than anything, saying:

Another circumstance of great importance is this, that as the power of attention is as different in different boys, as their bodily force, so their mental diet, if the expression be permitted, must also be varied accordingly

Crichton, 1798, p. 279

And, later, he denounced:

The ignorance and inattention, of a number of men, who, if they had been judiciously treated in their youth, might have become ornaments to their family, and useful members of society, but who having acquired an early disgust for study, have fallen a prey to false desires and wants, to the great prejudice of their health and fortune.

Crichton, 1798, p. 280

The unjustified definition of disorder that the APA seems to impose under the label ADHD can be answered ironically by the writings that Alexander Crichton left us two hundred years ago. For what is worth noting is not whether the child shows a lack of enthusiasm in their homework, or is distracted, but rather we should consider why this is happening; i.e., we should *analyze* their circumstances as Crichton did. Accepting that the answer to this question is *because the child has ADHD* is certainly fast (it is enough that child's manifest behaviors are consistent with the DSM and other related and equally subjective tests), which in turn means accepting that the individual inclinations, pedagogy and society barely influence their attentional faculty, and do not deserve to be duly considered.

1844: HEINRICH HOFFMANN

A few days before Christmas 1844, the German physician Heinrich Hoffmann (1809-1894) left his home determined to find in the shops in his city, Frankfurt, a book for his eldest son, three years of age. Finding nothing of interest, he decided that he would write and illustrate the book he wanted for his son. Thus *Der Struwwelpeter* was born, a bestseller that had numerous successive editions in which Hoffmann included some more stories (Struwwelpeter-museum, 2016).

The doctor's intention with the gift was not simply to amuse his son; it also had an educational purpose. He explained that children do not learn much from the verbal messages of adults. As much as you tell a child, "Do not play with matches because you might get burnt" if the child does not see the real danger behind doing that, mere words of warning will have little effect on their behavior. Therefore, the pedagogical stories in *Der Struwwelpeter* do not beat about the bush; they teach, very graphically, the consequences of not obeying: the girl who disobeys and plays with matches ends up catching on fire; the boy who is fussy when eating loses weight until he starves to death; the boy who ignores his mother's advice not to suck his thumb, or else the tailor will amputate it, ends up with severed thumbs; and so on,



some more similar tales, very brief and cautionary (Hoffmann, 1876).

One of the stories is that of *Die Geschichte vom Zappel-Philipp* (*Fidgety Philip*, in english version). It consists of just three images (Figure 1). In the first we see a child, Philip, sitting at the table with his parents; the food has already been served on the plates and there is a serving dish in the center, bread and a bottle of wine. The child is balancing on the back legs of his chair, without obeying his parents who ask him to be still at the table. The second image shows the child in the same attitude, but losing his balance, and as he tries to avoid falling he grips the tablecloth tightly. In the third and last image we see that everything that was on the table is now on the floor, and his parents are jumping up, visibly upset. This story is – according to the most renowned world expert– a clear case demonstrating the existence of the disorder in the mid-nineteenth century (Barkley, 2002, p. 43). "It is astonishing" –exclaimed the authors of the article *Hyperactivity (ADHD) in a 19th century children's book*, referring to the story of Philip– "how clearly the typical symptoms of ADHD are depicted in Hoffmann's book [...] This clearly shows that the diagnosis of ADHD is not an "invention" of modern times" (Thome & Jacobs, 2004, pp.303-305).

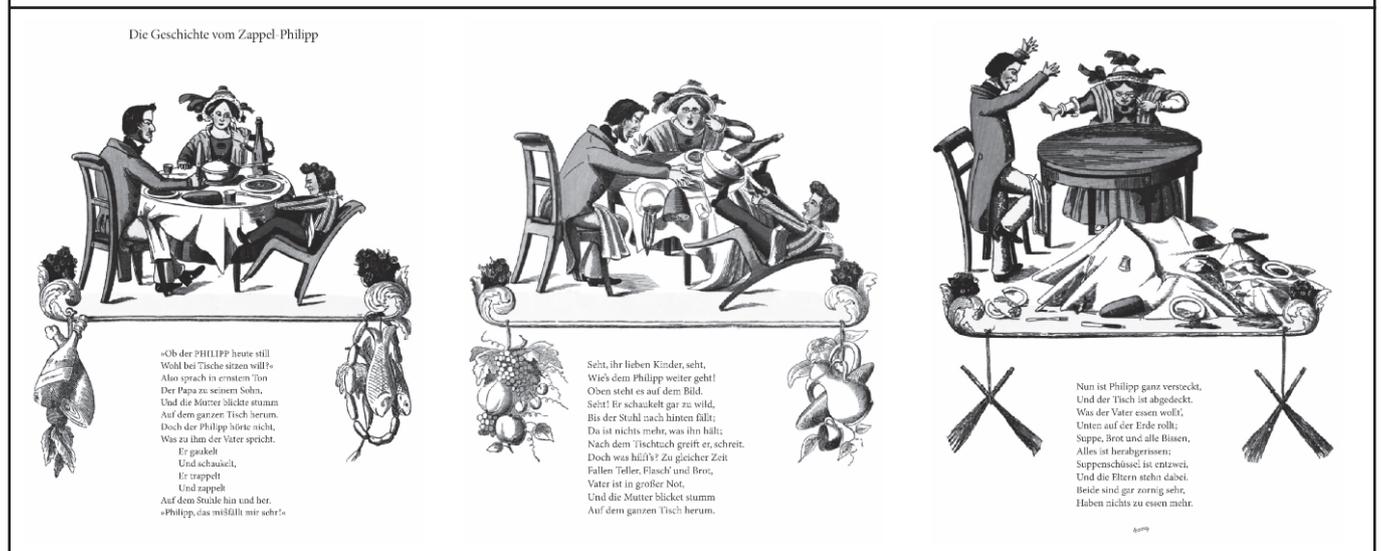
Another story of *Der Struwwelpeter* has also been identified as describing a case of ADHD. It is called *Die*

Geschichte von Hans Guck-in-die-Luft, (*Johnny head-in-air*). This story teaches children the risks of walking without looking where you are going. Among other calamities, the boy Hans ends up falling into the water because he is more focused on other things than on the ground in front of him. Thus, it has also been written that Hoffmann "published a book of nursery rhymes in which two ADHD cases were described" (Benito Moraga, 2008, p. 7).

Psychiatry manuals, articles on the history of psychology and web pages of the Ministry of Education (San Sebastián, Soutullo & Figueroa, 2010; Navarro González & García-Villamizar, 2010; INTEF, 2016) reproduce and interpret the story in the same way, which incomprehensibly comprises the official foundation on which ADHD is based. Nevertheless ADHD is presented as "one of the best-studied disorders in medicine and the general data on its validity are more convincing than those of most mental disorders and even many other diseases" (Goldman et al., 1998, cited by GPC, 2010, p. 37). It has been said that it is a disease "on a par with diabetes" (AACAP, 2007, cited by Hawthorne, 2010, p. 507).

The work that Hoffmann carried out in the psychiatric hospital in Frankfurt may have encouraged some to consider *Der Struwwelpeter* as "the first description of ADHD symptoms by a psychiatrist, representing an

FIGURA 1
BEING NAUGHTY AT THE TABLE IS TYPICAL OF MANY HEALTHY CHILDREN. THIS IS WHY H. HOFFMANN INCLUDED THE STORY OF FIDGETY PHILIP IN HIS CHILDREN'S BOOK STRUWWELPETER, SO THAT THEY CAN CLEARLY SEE THE CONSEQUENCES OF THEIR ACTIONS AND LEARN TO BEHAVE. ITS RECENT LABELLING AS ADHD MAY BE DUE, RATHER THAN TO EMPIRICAL EVIDENCE (SAIZ FERNÁNDEZ, 2013), TO A PATOLOGIZATION OF CHILDHOOD MORE TYPICAL OF OUR DAYS



important document in the history of medicine" (Thome & Jacobs, 2004, p. 306). But Hoffmann—who was a generalist doctor—first worked as a psychiatrist seven years after writing the first edition of *Der Struwwelpeter*, because he found his calling in 1851, when he began to direct the institution for the mentally ill and epileptics in Frankfurt (Struwwelpeter- museum, 2016).

Hoffmann, as well as being a renowned satirist of his time, was a reformer of psychiatry, at a time when patients—often miserably overcrowded—received purgatives, bloodletting, emetics, and other dubious remedies (Shorter, 1999). If Hoffmann, as the psychoanalyst Carlos Rey imagined, "had raised his head to blow out the candles on his bicentenary, he would have been surprised to learn that, among his many recognized merits, he had also been credited as the intelligent designer of the genesis of ADHD, no less!" (Rey, 2012).

Instead of diagnosing ADHD in fictional characters of the nineteenth century, it would be better, as Mathew Smith proposed, to dedicate this effort to examine the reasons why such normal childhood behaviors have been pathologized in recent decades (Smith, 2012).

1902: GEORGE F. STILL

According to the *Guía de Práctica Clínica sobre el TDAH en niños y adolescentes [Clinical Practice Guide on ADHD in children and adolescents]*, "the first definition of ADHD was produced by G. Still, in 1902" (GPC, 2010, p. 33). Whilst not all of those who write about the origin of ADHD mention Hoffmann or Crichton, they do all cite the father of British pediatrics.

George Frederick Still was born on 27 February 1868 in Highbury, London. A brilliant student, he excelled in classical languages. He studied medicine and graduated in 1893, working then at the Hospital for Sick Children in London, where he wrote about different forms of arthritis. He was the first British professor of childhood diseases, co-founding the British Association of Paediatrics and writing more than a hundred scientific papers and several books of great recognition, such as *A history of Paediatrics* (Farrow, 2006; Dunn, 2006).

At the age of 33 he joined the Royal College of Physicians of London; despite his young age he was already a respected doctor, so a year later he was granted the honor of being chosen to give the three annual conferences known as the Goulstonian Lectures, on the 4, 6 and 11 March 1902. The title of his presentations was "**Some abnormal psychical conditions in children**", and the following month they were published in *The Lancet* (Still, 1902).

According to Russell Barkley, "it appears that much of

what modern science in ADHD has done is to merely reaffirm in a more rigorous way many of Still's astute observations" (Barkley, 2006, p. 138). Barkley believes that although Still did not use the terminology of this disorder in those three conferences, the children of whom he spoke would be included today in the classification of "ADHD combined subtype, among other disorders" (Barkley, 2006, p. 137).

The theme chosen by Still for his lectures was monographic: **The morbid defect of moral control** (MDMC) in children. Still explained that the word "moral" here has to do with "**the good of all**", so individuals without moral control are guided through life without showing any consideration for others. These children are especially "passionate", spiteful with their peers, cruel to animals, they steal without any need and compulsively, they lie in equal measure, they are destructive, lack shame and are, in some cases, "sexually immoral" and "vicious". These children tend toward self-satisfaction, without considering the harm that their actions may have on others (Still, 1902, p. 1009).

In his first lecture, Still focused on the cases of 23 children with moral control defect associated with intellectual impairment, thus introducing the topic that interested him most: MDMC in children of normal intelligence. In the following days, Still insisted that not only is MDMC compatible with normal intelligence, but often it is independent of the environment (Still, 1902, pp. 1165-1116).

To investigate the causes of the moral control defect in children of normal intelligence, Still proposed two distinct lines. The first found the explanation in a known physical cause. This was the case, for example, of a 6 year old boy who fell down the stairs hitting his head severely. Days after the fall he became "spiteful, passionate, disobedient, and destructive." But it is not only illnesses or injuries directly related to the brain that can cause loss of moral control, he explained; other diseases of a more general nature can produce these effects (Still, 1902, p. 1078).

The other line of his presentation focused on the group of treated children suffering from a moral control defect in the absence of injury or severe illness or intellectual disability, the group in which he was most interested, as we said. He talked about 20 of his cases—15 boys and 5 girls—as well as some other cases of his colleagues (Still, 1902, p. 1079).

The first case Still described in this group was that of a child of 5 years and 4 months who had been referred from an orphanage where he had been living for three years. He was "very spiteful and seemed to take a delight in tormenting the other children; he sometimes took away



their toys and threw them in the fire and then laughed at their grief, as the teacher said, 'most hideously'". Although there were no animals allowed in the orphanage, the boy was "cruel to such insect life as he could find in the garden". The father was very aggressive and jealous; he had killed the boy's mother and then had been confined to a mental hospital. Still believed that the child's behaviors, certain characteristics of his physiognomy, and the history of his father's madness were indicative that the moral control defect was morbid, "a congenital limitation of the capacity for the development of moral control" (Still, 1902, p. 1080). The second case was a shy child who from a very young age showed "a propensity for stealing", lying and going to great efforts to conceal his thefts. At the age of nine he defecated in bed simply because it was cold outside of it. He was insensitive to punishment. The third case was a 13 year old girl who showed no affection for her mother. She was untruthful, stole money and completely lacked any discipline. The pediatrician stressed her tendency to "run after" the opposite sex and expose herself "indecently" (Still, 1902, p. 1080).

In addition to this *innately immoral group*, reference was made to other children who, having developed adequate moral control for part of their life suddenly lose it, sometimes for days and sometimes indefinitely. Still shared the case of a 9-and-a-half-year-old boy. Up to 7 years of age he had been obedient and shown correct behavior, although he had always been "rather bad-tempered". Suddenly he began to be disobedient in the extreme. He began to show an abnormal cruelty, so much so that he was caught *in flagrante* cutting up a rabbit alive with scissors. He was behind at school and showed "that lack of attention which is very noticeable in many of these cases..." (Still, 1902, p. 1081). On the last day, the doctor referred to cyclical DMCM, where immoral periods alternate with periods of moral self-control (Still, 1902, p. 1163).

The body of evidence was, in Still's opinion, too small to locate the cause of moral defect in one or another region of the brain. He found the clue to a possible organic cause in specific fevers, which can cause these moral changes for a while. From this he deduced that any process related to the cellular modification and nutrition "may be the physical basis of the moral defect" (Still, 1902, p. 1166).

SCIENCE OR SCIENTISM?

We must remember that, according to psychologist Rafael Guerrero, Still's is "the first scientific description of ADHD" (Guerrero, 2016, p. 41), as argued by different

specialists (Ramos Quiroga, Bosch & Casas, 2009, p. 10).

Given the more than obvious differences between the behavioral list (being forgetful, not doing homework, climbing on furniture) that the APA called ADHD in 1980, and the descriptions that Still characterized mainly by hostility, spitefulness, cruelty, stealing, dishonesty, destructiveness, and viciousness (Still, 1902, p. 1009), what fantastic phenomenon has led to so many authors concluding that the descriptions of Still constitute "the scientific starting point of the history of ADHD" (Barkley, 2006a; Conners, 2000; Palmer & Finger, 2001; Rafalovich, 2001, Rothenberger & Neumärker, 2005, quoted by Lange et al, 2010, p. 244)?

The answer to this question may lie in the particular way that Russell Barkley interprets the Goulstonian Lectures: "Still (1902) described 43 children from his clinical practice who had serious problems with sustained attention and self-regulation. [...] He concurred with William James (1890), author of the first psychology textbook in the United States, that such attention may be an important element in the moral control of behavior. Most of Still's cases were also overactive. Admittedly, many as well were also often aggressive, defiant, resistant to discipline, and excessively emotional or "passionate", and likely in today's diagnostic terminology would have qualified as well for oppositional defiant disorder (ODD). [...] This association among these disorders (ODD and conduct disorder) remains true today, where between 40% and 85% of ADHD cases seen in clinics manifest comorbid ODD and 25% to 55% have conduct disorder (Barkley, 2006; Goldstein & Goldstein, 1998, quoted by Barkley, 2006, p. 137). Historically, then, the strong association among these externalizing disorders has been evident for a century or more."

Still spoke of 43 children in total, as Barkley says, but the 23 referrals on the first day were children with serious intellectual deficiency, which requires them firstly, following the APA guidelines, to be discarded as cases of ADHD (APA, 1983). We are left with 20 children, a number that while small was not easy for him to obtain as DMCM in the absence of an intellectual impairment was a condition that was "by no means common" (Still, 1902, p. 1079). If these 20 cases were ADHD, how difficult would it be for a pediatrician to gather a much larger number of these, if according to the experts up to "one or two children per classroom" suffer from it (FEAADAH, 2016)?

It is curious that Barkley synthesizes Still's talks, putting the problems of sustained attention before anything else, because as we know this meant for the pediatrician an



added nuance to a core set of wrathful, malicious, aggressive and dishonest behaviors. Barkley later admits that these children were also "very active" and aggressive. Undoubtedly, in this analysis the order of importance of the characters described by Still is reversed, purposefully highlighting peripheral aspects and minimizing central aspects. We must also note the arbitrary use of the medical concept of comorbidity, used here as an unjustified wildcard (García de Vinuesa, González Pardo & Pérez Álvarez, 2014), as well as the honorific use of "science", a sign of "scientism" whereby it is intended to provide the artificial Still-ADHD relationship a coherence that it lacks, thereby promoting uncritical credulity (Haack, 2010).

FINAL THOUGHTS

In the opinion of psychiatrist Javier Quintero, "today few dispute the existence of ADHD [...] and conceptual discussions are a remote memory, steamrolled by the relentless pace of science". He believes that such criticisms about the existence of the disorder are "myths" and he says ironically that "the 'new concept' (of ADHD) actually dates back more than a century, since it was defined by Still" (Quintero, 2012, pp. 9-13).

It is fair to say, however, that not only do the diagnostic criteria for ADHD completely lack validity (García de Vinuesa, González Pardo & Pérez Álvarez, 2014), but its historical presentation letter, when carefully analyzed, crumbles. Given that its pharmacological treatment is anything but harmless, are we not getting used to the prevailing lack of rigor in this field not being a serious problem at all when addressing the needs of children?

AUTHOR DISCLOSURE STATEMENTS

No competing interests exist

REFERENCES

- APA, Asociación Americana de Psiquiatría [American Psychiatric Association] (1983). *Manual diagnóstico y estadístico de los trastornos mentales [Diagnostic and Statistical Manual of Mental Disorders]*, DSM-III. Barcelona: Masson
- APA, American Psychiatric Association (2013). *Diagnostic and statistical manual of mental disorders, DSM-5*. Washington, DC: American Psychiatric Publishing.
- Barkley, R. A. (2002). *Niños hiperactivos. Cómo comprender y atender sus necesidades especiales [Hyperactive children. Understanding and meeting their special needs]*. (3rd Edition) Barcelona: Paidós Ibérica.
- Barkley, R.A. (2006). The relevance of the Still lectures to Attention-Deficit/Hyperactivity Disorder. *Journal of Attention Disorders*, 10, 137-140.
- Benito Moraga, R. (2008). Evolución en el trastorno por déficit de atención e hiperactividad (TDAH) a lo largo de la vida [The evolution of Attention Deficit Hyperactivity Disorder (ADHD) throughout life]. Madrid: Draft Editores.
- Crichton, A. (1798). *An inquiry into the nature and origin of mental derangement*. London: Printed for T. Cadell, Junior, and w. Davies, in The Strand.
- Dunn, P. M. (2006). Sir Frederic Still (1868-1941): The father of British paediatrics. *Archives of Disease in Childhood. Fetal and Neonatal Edition*, 91, 308-310.
- Farrow, S. J. (2006). Sir Frederick Still (1868-1941). *Rheumatology (Oxford Journals)*, 45(6), 777-778.
- FEEDAH, Federación Española de Asociaciones de Ayuda al Déficit de Atención e Hiperactividad [Spanish Federation of Attention Deficit and Hyperactivity Aid Associations] (2016). Retrieved on 20 September from: <http://www.feadah.org/es/sobre-el-tdah/respuestas-a-preguntas-frecuentes.htm#02>
- Gamo, J. R. (2010). Preguntas al público [Questions to the public]. In C. Baldovi & R. Iglesias (Eds.), *Hiperactivos. Estrategias y técnicas para ayudados en casa y en la escuela [Hyperactive individuals. Strategies and techniques for helping at home and at school]* (3rd Edition) (p. 172-183). Madrid: LoQueNoExiste.
- García de Vinuesa, F., González Pardo, H. & Pérez Álvarez, M. (2014) *Volviendo a la normalidad. La invención del TDAH y del trastorno bipolar infantil [Getting back to normal. The Invention of ADHD and Childhood Bipolar Disorder]*. Madrid: Alianza Editorial.
- GPC, Grupo de trabajo de la Guía de Práctica Clínica sobre el Trastorno por Déficit de Atención con Hiperactividad (TDAH) en Niños y Adolescentes [Working Group for the Clinical Practice Guidelines on Attention Deficit Hyperactivity Disorder (ADHD) in Children and Adolescents]. Fundació Sant Joan de Déu (Coordinador) (2010). *Guías de Práctica Clínica en el SNS [Clinical Practice Guidelines in the Spanish health service]: AATRM N° Barcelona: Agència d'Informació, Avaluació i Qualitat (AIAQS) de Catalunya.*
- Guerrero, R. (2016). *Trastorno por Déficit de Atención con Hiperactividad. Entre la patología y la normalidad [Attention Deficit Disorder with Hyperactivity. Between pathology and normality]*. Barcelona: Libros Cúpula.
- Hawthorne, S. (2010). Institutionalized intolerance of ADHD: Sources and Consequences. *Hypatia*, 25(3), 504-526.



- Haack, S. (2010) Seis signos de cientismo [Six signs of scientism]. *Discusiones Filosóficas [Philosophical Discussions]*, (11)16, 13-14.
- Hoffmann, H. (1876). *Der Struwwelpeter oder lustige Geschichten und drollige Bilder für Kinder von 3-6 Jahren von Dr. Heinrich Hoffmann*. 100 Auflage. Frankfurt am Main: Literarische Anstalt (Rütten & Loening).
- INTEF, Instituto Nacional de Tecnologías Educativas y de Formación del Profesorado [National Institute of Educational Technologies and Teacher Training] (2016). *Evolución histórica del concepto TDAH [Historical evolution of the concept ADHD]*. Retrieved on September 20 from: http://www.ite.educacion.es/formacion/materiales/186/cd/ml/evolucin_historica_del_concepto_tdah.html
- Lange, K.W., Reichl, S., Lange, K.M., Tucha, L. & Tucha, O. (2010). The history of attention deficit hyperactivity disorder. *ADHD Attention Deficit and Hyperactivity Disorders*, 2, 241-255.
- Martínez-Badía, J., Martínez-Raga, J. (2015). Who says this is a modern disorder? The early history of Attention Deficit Hyperactivity Disorder. *World Journal Psychiatry*, 5(4), 379-386.
- Matusевич, D. (2015). La pasión de Alexander Crichton [The passion of Alexander Crichton], *Asclepio*, 67(2), 107. <http://dx.doi.org/10.3989/asclepio.2015.25>
- Navarro González, M.I., & García-Villamizar, D. A. (2010) El concepto de hiperactividad infantil en perspectiva: Breve análisis de su evolución histórica [The concept of child hyperactivity in perspective: A brief analysis of its historical evolution]. *Revista de Historia de la Psicología*, 31(4) 23-36.
- Palmer, E. & Finger, S. (2001). An early description of ADHD (Inattentive Subtype): Dr Alexander Crichton and 'Mental Restlessness' (1798). *Child Psychology and Psychiatry Review*, 6, 66-73.
- Prience, J. B. (2006). ADHD: History, evolution and social impact. In J. Biederman (Ed.), *ADHD across the lifespan: An evidence-based understanding from research to clinical practice* (pp. 1-27). Boston: Veritas Institute for Medical Education.
- Quintero, J. (2012). Introducción [Introduction]. In A. Perote Alejandre & R. Serrano Agudo (Eds.), *TDAH: Origen y desarrollo [ADHD Origin and development]* (pp. 9-14). Madrid: International Marketing & Comunicación.
- Quintero, J. & Castaño de la Mota, C. (2014). Introducción y etiopatogenia del trastorno por déficit de atención e hiperactividad (TDAH) [Introduction and etiopathogenesis of Attention Deficit Hyperactivity Disorder (ADHD)] *Pediatría Integral*, XVIII(9), 600-608.
- Ramos-Quiroga, J.A., Bosch, R. & Casas, M. (2009). *Comprender el TDAH en Adultos [Understanding ADHD in Adults]*. Barcelona: Amat Editorial.
- Rey, C. (2012). Pedro Melenas, el terror de las neuronas [Long-haired Peter, the terror of neurones]. *Revista de la Asociación Española de Neuropsiquiatría*, 32(116), 877-887.
- Sagvolden, T. & Archer, T. (1989). *Attention Deficit Disorder. Clinical and basic research*. Hillsdale, NJ: Lawrence Erlbaum.
- Saiz Fernández, L. C. (2013). Atentos al déficit de atención (TDAH). Entre la naturaleza incierta y la prescripción hiperactiva [Attending to the attention deficit (ADHD). Between the uncertain nature and hyperactive prescription]. *Boletín de Información Farmacoterapéutica de Navarra*, 21(5), 1-19.
- San Sebastián, J., Soutullo, C. & Figueroa, A. (2010). Trastorno por Déficit de Atención e Hiperactividad (TDAH) [Attention Deficit Hyperactivity Disorder (ADHD)] In C. Soutullo & M. J. Mardomingo (Eds.) *Manual de psiquiatría del niño y del adolescente [Manual of Child and Adolescent Psychiatry]* (pp. 55-78). Madrid: Editorial Médica Panamericana.
- Shorter, E. (1999). *Historia de la psiquiatría. De la época del manicomio a la era de la Fluoxetina [History of psychiatry. From the time of the asylum to the era of Fluoxetine]*. Barcelona: J & C Ediciones Médicas.
- Smith, M. (2012). *Hyperactive. The controversial history of ADHD*. London: Reaktion Books.
- Soutullo, C. (2013). TDAH y su comorbilidad psiquiátrica [ADHD and its psychiatric comorbidity]. In M.A. Martínez Martín (Ed.), *Todo sobre el TDAH. Guía para la vida diaria. Avances y mejoras como labor de equipo [All about ADHD. Guide to daily life. Advances and improvements as teamwork]* (pp. 81-116). Tarragona: Altaria.
- Still, G. F. (1902). Some abnormal psychical conditions in children. *Lancet*, 1, 1008-1012, 1077-1082, 1163-1168.
- Struwwelpeter-museum (20th September 2016). Retrieved from <http://www.struwwelpeter-museum.de/en/heinrich-hoffmann/>
- Thome, J. & Jacobs, K. (2004). Attention deficit hyperactivity disorder (ADHD) in a 19th century children's book. *European Psychiatry*, 19, 303-30.
- Whitaker, R. (2016). TDAH o una sociedad que se va de rositas [ADHD or a society that gets away scot-free]. *Infocop*. Retrieved 19th September from: http://www.infocop.es/view_article.asp?id=6012

