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Lies My Disorder Told Me:
Stimulants as Study Aids

Abstract

College students in large numbers are known to use stimulants illegally as study aids. For some, it appears, the stunning improvement of concentration (if not of actual academic performance) credited to the drugs serves as proof that they suffer from Attention-Deficit/Hyperactivity Disorder, an ailment whose prevalence in the United States has skyrocketed over recent decades. The fact is that everyone responds to stimulants, not just those laboring under a disorder of inattention or impulsivity. Students who diagnose themselves with ADHD on the strength of their own abuse of stimulants not only ground their thinking on a false assumption but risk aggravating their problems by assigning them to a provocative cause. They court the nocebo effect. Institutions of learning would do well to attack the problem by attaching more weight to the kind of academic work for which stimulants are notably useless: writing.

Ever since colleges and universities began to grant accommodations to those with Attention-Deficit/Hyperactivity Disorder, students have had an incentive to fake that impairment. If only because many official symptoms of ADHD overlap normality and diagnosing the disorder often consists of little more than scoring a checklist of leading questions, the required shamming isn't all that difficult.¹ One simply games the system. So commonplace is this play-acting that the index of Alan Schwarz's recent study of the ADHD epidemic, *ADHD Nation*, contains an entry for "faking ADHD symptoms."² The students featured in *ADHD Nation* have a special motive for getting themselves diagnosed: to obtain a supply of the controlled substances, known as

stimulants, prescribed to manage ADHD. Prized as recreational drugs and reputed to be academic performance-enhancers, these pharmaceuticals circulate on black markets operating even now around institutions of higher learning.

But if available benefits of ADHD (in the form of prescription drugs or special accommodations) inspire cynical acts of fakery, they can also lure students into believing they have the disorder when they probably don't. The risk of such confusion is in play whenever common problems like inattention or restlessness are sold as mental disorders and the sellers find buyers. Testifying to the activity of this market is the dizzying increase in reported mental disorders, prominently including ADHD, since the American Psychiatric Association's establishment in 1980 of a diagnostic system that features checklists and lends itself to inflationary findings.

Since the instatement of Attention Deficit Disorder (as it was then called) in the APA's Diagnostic and Statistical Manual in 1980, the estimated prevalence of the disorder has risen fivefold, from 3% to 15% of the child population. That all those swept up in this diagnostic tidal wave actually possessed the disorder—that cases were simply being identified more and more accurately with each vertical increase in prevalence—defies belief. Given the zeal of ADHD crusaders, the paradoxical popularity of the diagnosis, the strong family resemblance between many codified ADHD symptoms and normality, and the marketing power and ingenuity of the companies behind the stimulants, it's a moral certainty that innumerable young people with something short of a clinical disorder were labeled with ADHD, often at such a young age that they were in no position to question the diagnosis. If not a moral certainty, it's at least highly

probable that many of those given an inflated or frankly spurious diagnosis have come to believe it implicitly.

A revolution like the one that engulfs us doesn't stop with a 500% increase in diagnosed cases. We know such a revolution has made its mark when people begin to *diagnose themselves* with popular disorders, foregoing even the formalities of a checklist.³ Of course, such diagnoses don't have to be medically valid to enlist the belief of those who frame them.

A few years ago an article appeared in the medical literature in which students at an unnamed public university in the southeast who have diagnosed themselves with ADHD and use black-market stimulants like Adderall as a study aid talk openly about their thinking.⁴ The article (henceforth DeSantis and Hane) thus affords a rare opportunity to get into the mind of a casualty of the ADHD revolution: an ordinary person who adopts the ADHD label as his or her own and believes in it despite the thin evidence supporting it. No wonder the interviewed students believe in it. Their self-conferred disorder enables them to engage in arguably dishonest academic conduct with no sense of impropriety. In fact, to the students their use of stimulants for academic ends, as opposed to getting high, is a point in their favor. Without such a feeling of innocence they might not have spoken so freely to interviewers about using someone else's prescription drugs.

As if the drugs restored what their self-diagnosed disorder took away, many of the DeSantis and Hane students rationalized their use of stimulants as a compensation for ADHD. Some also concluded that their response to the drugs proved that they had

the disorder in the first place. For the group as a whole, all the contentious questions surrounding the mass diagnosis and perverse popularity of ADHD, as well as the routine use of illegal drugs for academic purposes, disappear without a trace in the inspiring effects of Adderall.

Rachel: *"Without it [a stimulant] I am really bad. I really do think I have it [ADHD]. So it makes me study a lot better when I take it. I couldn't study as much as when I'm on it."* At the same time, Rachel claims to use stimulants moderately and selectively, not for every quiz. *"You have to be smart and use it only when it is important."*

Michael: *"It works for me every time. I know I should be on it full time. Me on it and not on it is two different worlds. It works, that's a pretty good sign that I need it."*

Megan: *"There is no doubt that it works. So I guess I am right [in diagnosing herself with ADHD] cause it works."*

Christina thinks she has *"a mild case of ADD."* She *"can't focus and pay attention and so forth. I have friends with it and they are just like me. They can't focus and get things done."* *"I would be crazy not to [take Adderall]. I really need it."*

Travis: *"I have always thought I was ADD. I have always had problems concentrating. Really, I would lose concentration with everything. I can't even watch a movie without getting bored."*

One is struck by the naiveté of the students' belief in their impairment. *"I really do think I have it."* *"I know I should be on it full time."* *"There is no doubt that it works."* *"I really need it."* The authors of the article in question miss the point when they conclude that "Far too many of our participants trivialized this developmental disorder [ADHD] as nothing more than the periodic inability to concentrate."⁵ The point isn't that the interviewed students minimize ADHD (thereby somehow wronging its real victims) but that they magnify their troubles to the dimensions of a mental disorder and believe their own exaggerations. Their self-diagnosis has gone to their head. If these students are representative of a good many of the 10.7% of the college population who abuse Adderall alone according to a 2015 survey,⁶ then the implications of their confusion are immense.

It may be that none of the DeSantis and Hane students actually qualified for an ADHD diagnosis under the language of the Diagnostic and Statistical Manual then in effect (DSM-IV-TR), which called for a showing of no fewer than six symptoms out of a list of nine, all six "inconsistent with developmental level." Considering that many college students seem to suffer from wavering concentration (attending to Facebook rather than lectures, for example), it would be hard to argue that this sort of behavior is developmentally out of place, as if it belonged to the middle-school years—even assuming the DeSantis and Hane students could meet the DSM's six-symptom requirement.⁷ But despite the DSM's status as the bible of mental disorders, few of the lay public (and perhaps not that many professionals) will adhere to its text with literal

fidelity. Under the influence of the trend toward the medicalization of human life, the students interpret even boredom and daydreaming as manifestations of ADHD.

Note, however, that they refer to their chosen disorder as ADD—Attention Deficit Disorder—a name retired in the revision of DSM-III in 1987, probably before some of them were born. The hyperactivity component of ADHD disappears from their discourse, and with it the more disturbing features of a syndrome that sometimes persists beyond childhood, according to the DSM.⁸ Even though hyperactivity too responds to drugs like Adderall, the interviewed students seem to want no part of it. They give themselves a diagnosis that not only connotes nothing as unseemly as the “disinhibition” of impulsivity, but obviously goes with the territory of college and its academic demands. As if it had been tailor-made for them, their diagnosis gives the students a resemblance to their friends (*“I have friends with it and they are just like me”*), offends no one, excuses conduct that might otherwise seem dishonest, and even explains their response to Adderall, theoretically. Whether or not they realize it, the diagnosis has in fact been tailored—by themselves.

Because the DeSantis and Hane students have fashioned their diagnosis, it reflects their misconceptions. For one, by no means does response to Adderall prove that you have ADHD. If reacting to a stimulant established the presence of ADHD, not only would the ADHD debate be over but psychiatry would have found its Holy Grail—a litmus test for a mental disorder. The fact is that stimulants elicit their effects, including increased alertness (though not necessarily improved test scores), in anyone and everyone, which helps explain why they’re so widely abused and why non-disordered

students like some portrayed in *ADHD Nation* feign the symptoms of ADHD simply to get their hands on them. “It is now generally accepted that the effects of stimulants are essentially the same, whether they are given to adults or children, people with or without ADHD, or to animals.”⁹ Many of the DeSantis and Hane students argue that stimulants are like caffeine, but caffeine too works its wonders across the board, not just in people with a certain profile; and they know full well that students of all descriptions, not just ADHD sufferers, use stimulants to cram for exams. Non-ADHD students too claim that stimulants make a night-and-day difference in their ability to do academic work.¹⁰ Nevertheless, the DeSantis and Hane students choose to believe that their reaction to Adderall somehow proves that without it they’re impaired and that their use of it as a kind of equalizer is therefore fitting and appropriate.

Complicating the students’ claim that Adderall definitely works for them and therefore certifies their disability is that some of their response to it may well be a placebo effect. That a drug exerts a pharmacological effect doesn’t preclude a placebo response as well; on the contrary, the known efficacy of a drug and, in the case of a stimulant, the lore and chatter surrounding it serve as excellent conductors of the placebo effect. If the students liken Adderall to caffeine, placebo represented as caffeine to research subjects consisting of undergraduates (like the interviewed students) can induce surprising caffeine-like effects, including a faster pulse.¹¹

Psychoactive drugs in particular are notoriously vulnerable to the power of the placebo; hence, for example, the controversy raging around the value of antidepressants. We ignore the subtle power of the placebo at our peril. According to Megan, “*There is no*

doubt that [stimulant] works,” but that depends on what “works” means. It’s more certain that Adderall and the like induce a feeling of alertness or concentration than actual cognitive gains, and such responses are highly receptive to the placebo effect. In a carefully designed study where some cocaine abusers expected to receive the stimulant methylphenidate (Ritalin, a drug similar to Adderall) and did receive it, while others expected to receive placebo but got the drug instead, “self-reports of ‘high’ were 50% greater when methylphenidate was expected than when it was not.”¹² As in this instance, the placebo literature as a whole finds expectation to be the principal channel of the placebo effect.

But expectation works two ways. Just as the expectation of benefit feeds into the experience of benefit, so the expectation of an adverse outcome can make it more likely. The placebo and nocebo effects are clearly two sides of one coin and arguably comparable in importance, despite the medical literature’s preferential interest in the former. In an article in *Academic Questions* I made the case that giving students who write poorly the DSM-V diagnosis, “Specific Learning Disorder—Written Expression,” could well convince them that their writing is somehow caused by their disorder.¹³ (Similarly, while DeSantis and Hane’s Adderall abusers seem to believe that they have ADHD because they can’t concentrate, they also seem to believe that they can’t concentrate because they have ADHD.) I argued that “disorders attributed to a cause can become more credible, vivid, and real for the affected person precisely for that reason, even if the cause is theorized or fictitious” and that someone convinced he or she is wired to fail “could build up an expectation of failure that proves self-realizing.”

In short, diagnosing students with SLD-WE—as if this mystery disorder explained the symptoms it consists of—could provoke the nocebo effect.

Like SLD-WE, ADHD consists of a collection of symptoms; unlike SLD-WE, ADHD has caught on, the label itself is highly connotative, and crusaders on behalf of the diagnosis are convinced that a neurological deficit causes it. Students with ordinary academic troubles who diagnose themselves with a provocative disorder like ADHD, who believe in the diagnosis as if they themselves didn't originate it and invest in this construct to justify behavior that could otherwise be deemed cheating, open themselves up to the nocebo effect. Quite in contrast to someone who fakes ADHD to obtain a regular supply of stimulants, these students don't dissimulate. Like Rachel, they *“really do think”* they have ADHD, a belief that only makes things worse. People have been known to sicken as a result of exposure to toxic fumes that can't be detected but seem to them to exist.¹⁴

Illuminating in this connection is a 2016 article based on interviews with college students in the UK who use stimulants (“neuroenhancers”) without a prescription as study aids. Like their American counterparts, these students find themselves more focused and purposeful on the drugs; compare them to caffeine; draw a pointed contrast between illegal drugs and stimulants, and between taking stimulants to get high and taking them to get academic work done; and make sure to offer what sound like rationalizations of their drug intake. In the case of the UK students a key rationalization appears to be that they're less “organized” than their peers and stimulants enable them to “catch up.” However, not once do these students link their

troubles to a disorder or suggest that their response to stimulant proves they have a disorder. In fact, the article doesn't mention ADHD, no doubt because ADHD is not the looming presence in the UK that it has become in the US.¹⁵

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With American colleges and universities flooded with stimulants as a direct result of the rampant overdiagnosis of ADHD, it might seem that the wise administrative course is to do nothing rather than pretend to manage the unmanageable. Unlike plagiarism, the illegal use of stimulants as a study aid leaves no evidence, after all. For campuses with an honors code, making the use of non-prescribed stimulants or the failure to report such use an honors offense might be an attractive idea, but could end up making a joke of the code itself. For students who think of stimulants as high-grade caffeine, a shaming campaign makes about as much sense as criminalizing coffee. A campaign informing students that response to a stimulant does *not* establish ADHD, because anyone and everyone responds, could well serve as an advertisement for the controlled substance. Assuming stimulants actually enhance performance on tests as opposed to providing feelings of focus, they would be like steroids. That baseball players hit more home runs on steroids doesn't mean they were suffering from a disorder remedied by steroids. To proclaim this on posters would be fatal, however.

One measure institutions of learning can take to deter the abuse of stimulants, and the fallacies and delusions to which they give rise, is simply to make the drugs useless. This they can do to some degree by requiring more of the work stimulants can't possibly improve—in particular, writing. While some students reportedly feel that when they're on Adderall their papers virtually compose themselves,¹⁶ one wonders how this automatic writing looks to the undrugged reader. Stimulants help you cram. No one to my knowledge credibly suggests that they make you more cogent and articulate, or that they abolish the need to revise, or that they substitute in any way for practice in written expression. A paper scrawled in the middle of the night before the due date is going to show it, whether or not the author was on Adderall. Good papers aren't written in one great sitting.

Though the myth that stimulants serve as a nocturnal muse may prove hard to slay, the less students resort to stimulants as performance enhancers the less liable they are to the noxious fallacy that they have must ADHD because stimulants make them more focused or whatnot. The notion that you have ADHD if you react to ADHD medication is all the more misleading because it looks like it makes perfect sense. The student who persuades herself that she has ADHD because she feels better on Adderall, and then seeks out Adderall because she has a confirmed case of ADHD, has gotten herself caught in a vicious circle indicative of the nocebo effect. (The fantasy that stimulants can rescue them at the eleventh hour could actually discourage students from studying and thereby confirm the impression that they can't do without their drug—another counter-therapeutic cycle.)

The nocebo literature informs us of the worsening that can set in when ordinary stresses or symptoms—the ills that flesh is heir to—acquire clinical labels, which in turn make the symptoms more significant, which in turn confirms the label. In a climate of diagnostic excess, ordinary academic trials and lapses of concentration could similarly mutate into something like ADHD, especially if those concerned were convinced by their own abuse of stimulants that they have it. While DeSantis and Hane urge colleges and universities to combat the notion that stimulants are innocuous, dangerous too is the fallacy that *“It works, that’s a pretty good sign that I need it”*—a fallacy that warps the subject’s self-understanding.

Composing essays in a burst of last-minute, stimulant-induced creativity is a formula for bad work even if the author feels supremely focused. Essay assignments thus cast doubt on the magic pharmacological powers that support the self-diagnosis of ADHD. And in doing so, such assignments can chip away, too, at the misconceptions that lure users into the notion that they have a serious, even disabling cognitive disorder—all as a result of an inundated drug market and a diagnostic craze. In an information economy, and indeed for the DeSantis and Hane students’ own fields of study (including medicine, finance, psychology and history), it’s hard to imagine a deficit more disqualifying than the cognitive impairment these students seem strangely invested in having.

¹ Cf. Allyson Harrison, Melanie Edwards and Kevin Parker, "Identifying Students Faking ADHD: Preliminary Findings and Strategies for Detection," *Archives of Clinical Neuropsychology* 22 (2007): 577-88.

² Alan Schwarz, *ADHD Nation: Children, Doctors, Big Pharma, and the Making of an American Epidemic* (New York: Scribner, 2016), p. 326.

³ On self-diagnosis with adult ADHD, see Peter Conrad and Deborah Potter, "From Hyperactive Children to ADHD Adults: Observations on the Expansion of Medical Categories," *Social Problems* 47 (2000): 559-82.

⁴ Alan DeSantis and Audrey Curtis Hane, "'Adderall is Definitely Not a Drug': Justifications for the Illegal Use of ADHD Stimulants," *Substance Use and Misuse* 45 (2010): 31-46. The interviews were conducted in 2007.

⁵ DeSantis and Hane, "'Adderall is Definitely Not a Drug'": 42.

⁶ Lloyd Johnston, Patrick O'Malley, Jerald Bachman et al., *Monitoring the Future: National Survey Results on Drug Use 1975-2015*. Vol. 2: College Students and Adults. (Ann Arbor: Institute for Social Research, University of Michigan, 2016), pp. 16, 366. See <http://monitoringthefuture.org/pubs.html#monographs>

⁷ The DSM checklist includes such items as "often does not seem to listen when spoken to directly," "often loses things," and "is often forgetful in daily activities." The interviewed students make no mention of any of this.

⁸ How many of the students would deny fidgeting during lectures or "subjective feelings of restlessness," both official symptoms of post-childhood hyperactivity according to DSM-IV-TR?

⁹ Joanna Moncrieff, *The Myth of the Chemical Cure: A Critique of Psychiatric Drug Treatment* (New York: Palgrave Macmillan, 2008), p. 207.

¹⁰ Scott Vrecko, "Just How Cognitive Is 'Cognitive Enhancement'? On the Significance of Emotions in College Students' Experiences with Study Drugs," *AJOB Neuroscience* 4, no. 1 (2013): 4-12. Students qualified for this study only if they didn't consider themselves to have ADHD.

¹¹ Irving Kirsch and Lynne Weixel, "Double-Blind Versus Deceptive Administration of a Placebo," *Behavioral Neuroscience* 102 (1988): 319-23.

¹² Fabrizio Benedetti, *Placebo Effects: Understanding the Mechanisms in Health and Disease* (Oxford: Oxford University Press, 2009), pp. 136-37. Cf. Alison Looby and Mitch Earleywine, "Expectation to Receive Methylphenidate Enhances Subjective Arousal But not Cognitive Performance," *Experimental and Clinical Psychopharmacology* 19 (2011): 433-44.

¹³ Stewart Justman, "The Medicalization of Misspelling: *DSM* and the Management of Life," *Academic Questions* 28 (2015): 322-33.

¹⁴ E.g., Timothy Jones, Allen Craig, Debbie Hoy et al., "Mass Psychogenic Illness Attributed to Toxic Exposure at a High School," *New England Journal of Medicine* 342 (2000): 96-100.

¹⁵ Elisabeth Vargo and Andrea Petróczi, "'It Was Me on a Good Day': Exploring the Smart Drug Use Phenomenon in England," *Frontiers in Psychology* 7 (2016). doi: 10.3389/fpsyg.2016.00779.

¹⁶ Vrecko, "Just How Cognitive Is 'Cognitive Enhancement'?" 9.