

# Prompt #4: The Ethics of Cognitive Enhancement

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Our society values achievement. Our employers extol the virtue of hard work, our professors encourage us to study harder, our coaches expect 110%, and the US Army attracts new recruits with the slogan “Be all you can be!” In the pursuit of excellence, we hire tutors and athletic trainers; we consult psychologists, dieticians, and personal finance consultants; we take piano lessons and enroll in SAT prep classes. And, some of us take drugs.

When baseball players turn to anabolic steroids to be all that they can be, we are appalled. We are also concerned when we read reports of college students using stimulants, such as Ritalin, to help them prepare for exams. What makes the pharmaceutical road to success morally suspect? Is there a difference between the use of drugs in athletics and in academics? Can we control the use of stimulants by college students? Should we? Read what Ben and Carl have to say about this issue, do a little research, and join the conversation.

## Get Started

Ben: Hi, Carl. I have a favor to ask.

Carl: *(Rolls his eyes and sighs.)*

Ben: I need a few Ritalin tablets. I have a big philosophy test coming up and I just can't focus. I don't know why I have to know what Aristotle had to say about happiness. I'll be happy when the course is over. Come on Carl, just two or three pills.

Carl: The last time I gave you pills, you promised that you would never ask me again.

Ben: I have an exam. You know everybody else will be up all night with the help of drugs. Do you want me to be at a disadvantage?

Carl: You exaggerate! Sandy is in your class, and I'm sure she won't be on drugs. I don't think there is an OCIA certified organic form of Ritalin. That leaves Sandy out! Of course, she did all the reading. Ritalin is for people with ADHD, not for students who decide to read *Nichomachean Ethics* the night before the exam.

Ben: Ritalin is for people who want to pass their philosophy exam! Just because it helps people with ADHD doesn't mean that it is not helpful to people like me.

Carl: My doctor gave my parents a little brochure about ADHD drugs when I was first diagnosed. It said that there is little evidence that Ritalin enhances the cognitive ability of normal children. Some mental skills, in fact, may be negatively affected.

Ben: That's BS! I've used it, and it works for me. Fair's fair! Why should you have access to Ritalin but not me?

Carl: I take the drug to overcome a deficiency; you want to become Mr. Genius. There is a big difference between therapy and enhancement.

Ben: Your parents paid some doctor to say you had ADHD just so you would have an advantage over kids like me. Half the kids from your fancy prep school have ADHD. No one ever heard of it in rural Mississippi. I think Ritalin should be available to all who could benefit from it.

Carl: Do you think it should be sold without a prescription?

Ben: I think it should be handed out at the health center. I'm tired of some kids having the benefits of expensive schools, private tutors, and the latest drugs, while others have nothing. This is just another addition to the gap between the "haves" and the "have-nots."

Carl: I may even agree with you on that point. But I don't think you should underestimate the possible side effects of Ritalin. There is the possibility of dependency. You could become addicted.

Ben: And you couldn't? Why is it dangerous for me and okay for you? It's no more dangerous than half the over-the-counter drugs on the market.

Carl: Drugs that affect mental processes are nothing to mess with. A physician monitors my use of Ritalin.

Ben: Sally went to the pharmacy yesterday and got a morning after pill – "Plan B" she called it. -- without a prescription. Now that is definitely more serious than something to improve my concentration a bit!

Carl: That is a ridiculous comparison. Plan B is an emergency thing. It's not taken regularly. There have been cardiovascular complications and even seizures associated with ADHD drugs.

Ben: All drugs result in adverse effects in some cases. Face it, Carl. Smart pills are going to follow the same path that plastic surgery did.

Carl: What are you talking about?

Ben: Plastic surgery was developed to help the disfigured. Now, it is used by models to improve their already spectacular looks. Drugs that can help ADHD kids concentrate can also help honors students learn even more. It's an inevitable trend. How about a few pills?

Carl: You are no honors student.

Ben: Come on. Just this once.

Carl: You are insufferable.

Ben: Don't call me names. Help me out.

Carl: Here! Now go study!

## Get Smart

Ackerman, Sandra. Hard Science, Hard Choices. New York: Dana Press. 2006.

The difference between enhancement and therapy is discussed in Part Three: "Drugs in the Brain."

Caplan, Arthur L. Smart Mice, Not-So-Smart People. Lanham, MD: Rowan and Littlefield. 2007.

Use the short essay, "Brain Enhancement," to get the conversation going. Professor Caplan finds "little wrong with trying to enhance and optimize our brains." This is a provocative statement for students who have been taught that the use of performance enhancing drugs in athletics is anathema.

Carey, Benedict. "Brain Enhancement is Wrong, Right?" The New York Times. March 9, 2008. Available: <http://www.nytimes.com/2008/03/09/weekinreview/09carey.html>.

Highly recommended. The difference between the use of enhancements in athletics and academic is discussed. The views of Martha Farah of Penn and Barbara Sahakian of Cambridge are explained.

Glannon, Walter. Defining Right and Wrong in Brain Science. New York: Dana Press. 2007.

“Part V. Psychopharmacology” includes a debate on enhancement between Arthur L. Caplan and Paul R. McHugh, a working paper from the President’s Council on Bioethics on the “Promise and Perils of Pharmacological Interventions,” and other useful essays. The Caplan/McHugh debate can be profitably read by students after they meet Dr. Caplan’s ideas in his essay in Smart Mice, Not-So-Smart People.

Gowin, Joshua. “How ‘Smart Drugs’ Enhance Us.” Psychology Today. September 29, 2009. Available: <http://www.psychologytoday.com/node/33280>.

Describes research on the effects of Adderall, Ritalin, and modafinil on normal subjects.

Greely, et al. “Towards Responsible Use of Cognitive-Enhancing Drugs by the Healthy.” Nature. December 2008. Available on line.

This is the editorial that inspired numerous articles in popular periodicals. A must read!

Levine, Carol. Taking Sides: Clashing Views on Controversial Issues, 11<sup>th</sup> Ed. Dubuque, IA: McGraw-Hill. 2006.

Students come to discussions of cognitive enhancement with strong feelings about the use of drugs by athletes. It may be useful to have them read issue 18 in this volume: “Should Performance-Enhancing Drugs Be Banned?” and talk about the differences (if any) between the use of enhancements in athletics and scholarship.

Moreno, Jonathan D. Mind Wars: Brain Research and National Defense. New York: Dana Press. 2006.

Chapter 6, “Building Better Soldiers,” describes the US government’s attempts to create smart, fearless soldiers who can perform their duties for days without sleep, using chemical and physical means.

Popp, Trey. “Are Better Brains Better?” The Pennsylvania Gazette. 108.2 (2009): 30-37.

Conversations with University of Pennsylvania researchers exploring the implications of cognitive enhancement.

Ravitsky, Vardit, Autumn Fiester, and Arthur L. Caplan, eds. The Penn Center Guide to Bioethics. New York: Springer Publishing Company, 2009.

See Susan Schneider’s essay, “Future Minds: Transhumanism, Cognitive Enhancement, and the Nature of Persons,” for an analysis of what radical enhancements would mean for our concept of what it means to be human.

Rosenfeld, Alvin, and Nicole Wise. The Over-Scheduled Child. New York: St. Martin’s Press. 2000.

See pages 156-159 for a discussion of the use of ADHD drugs by “normal” children to enhance their test-taking abilities.

Stix, Gary. "Turbocharging the Brain." Scientific American. 301.4 (2009): 46-55.

Outstanding article. Combines an accessible introduction to the pharmacology of neuro-enhancing drugs with a discussion of the ethical concerns they raise.

Szalavitz, Maia. "Popping Smart Pills: The Case for Cognitive Enhancement." Time. January 6, 2009. Available: <http://www.time.com/time/health/article/0,8599,1869435,00.html>.

A good summary and discussion of an editorial in Nature advocating the responsible use of cognitive enhancing drugs.

Talbot, Margaret. "Brain Gain: The Underground Worlds of 'Neuroenhancing' Drugs." The New Yorker. April 27, 2009. Available: [http://www.newyorker.com/reporting/2009/04/27/090427fa\\_fact\\_talbot](http://www.newyorker.com/reporting/2009/04/27/090427fa_fact_talbot).

Accessible to students yet comprehensive and authoritative. Many in-depth profiles of users and summaries of research studies. Good foundation for class discussion.

Talbot, Margaret. "Can a Daily Pill Really Boost Your Brain Power?" The Observer. September 20, 2009. Available: <http://www.guardian.co.uk/science/2009/sep/20/neuroenhancers>

See above. Same content.

## Get Involved

1. Was Carl wrong to give Ben Ritalin? Should Ritalin be available to all students? Jump into their dialog and add some thoughts of your own.
2. What is the moral difference between a baseball player who uses steroids to give himself a competitive advantage and a chemistry professor who takes modafinil to keep herself awake and productive during late nights in the lab as she races competing investigators to be the first to synthesize a new compound?
3. If drugs were developed that clearly improved the cognitive ability of normal children and had few side effects, would it be wrong for parents to force their children to take them?
4. Military research organizations are interested in developing a safe drug that would enable soldiers to fight for two or three days without rest. Soldiers in battle would probably welcome such a pill. When one's life is on the line, other considerations do not seem pressing. But, aren't there other situations in which lives are on the line? Should emergency room physicians use drugs to improve their concentration during long shifts?

How about air traffic controllers? Should society insist that such workers do everything they can to maximize their effectiveness? After all, lives are at stake.

5. University of Pennsylvania neurologist Dr. Anjan Chatterjee predicts that the use of neuroenhancement will become widespread in our society in the near future. Do you agree? Will the overall effect on society be positive or negative?
6. The economist Fred Hirsch cautions against the pursuit of “positional goods” in his book, The Social Limits to Growth (1977). Positional goods are valuable only when others don’t have them. As Hirsch explains: “If everyone stands on tiptoe, no one sees better.” If student A takes Ritalin to improve his concentration while taking the SAT, but so do all the other test-takers, has anyone benefitted? (Other than the manufacturer of Ritalin, of course!) Is Ritalin a positional good?