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Enhancement and Cheating

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A common worry expressed about the use of pharmacological cognitive enhancements such as Modafinil and Ritalin is that using them constitutes cheating (Fukuyama 2002; Henderson 2008). Those who enhance in this way are better placed to beat their unenhanced peers to the top educational qualifications and jobs; accordingly, enhancing is unfair. Is this worry justified?

The worry about cheating is often bound up with other worries about enhancement. These include concerns about safety, addictiveness, and accessibility. These concerns can be addressed independently of the concern about cheating, and so, to avoid complicating matters, let us assume that cognitive enhancement is safe to use, that it is non-addictive, and that it is accessible to everyone, not just the rich. Ought we still to be worried about the fairness of cognitive enhancement? Well, in the absence of these ancillary concerns, one of the issues that remain is that those who choose not to enhance will be at a disadvantage, left behind in the race for the best qualifications and jobs by their enhanced peers. Is this fair? Should people be free to use drugs like Modafinil and Ritalin to get ahead, or should education authorities and employers ban such enhancement, perhaps introducing urine tests to ensure that this ban is enforced, as Cambridge neuroscientist Sir Gabriel Horn has recently been quoted to suggest (Henderson 2008)?

We can start with a terminological point. Whether or not the use of cognitive enhancement drugs constitutes cheating depends on whether the use of such drugs is forbidden in the rules of the game. Currently, the rules to which students and employees must adhere typically forbid activities like plagiarism, forging references, and lying about one's educational and employment history—and those students and employees who break these rules can expect to be punished. Rules against the use of cognitive enhancement drugs are not currently widespread. Ought they to be?

The answer to this question depends on what we think is more important: a level playing field on which students and employees can compete equally for

qualifications and jobs, or the value of the achievements made through such competition. In some areas of life, the main purpose is to advance knowledge, and so maximizing the achievements made is plausibly more important than having a level playing field. As Anders Sandberg has commented, "that many of the theorems of the mathematician Paul Erdös were proven under the influence of amphetamines does not diminish their intellectual brilliance or importance" (Sandberg 2008). And, in the quest for a cure for cancer, if it turns out that cognitively enhanced scientists would be able to discover a cure more quickly than unenhanced scientists, then using cognitive enhancement could result in millions of lives being saved. In other areas of life, it is extremely important to remain alert and focused. For those working as airline pilots or surgeons, the consequences of a lapse in concentration could be dire. Cognitive enhancement could help prevent such lapses. These examples demonstrate that, while fairness is important, avoidably slowing the advancement of scientific knowledge or reducing the alertness of airline pilots and surgeons is too high a price to pay to ensure that those who do not wish to enhance are able to compete on a level playing field.

In other areas of life, however, competition is more important. A key purpose of education in schools and universities is to enable students to compete for the best qualifications. Should cognitive enhancement be banned in such contexts? There are at least two good reasons to answer "no" to this question. First, even if competition for qualifications is a valuable aspect of education, it is not the only valuable aspect. As well as enabling one to gain educational qualifications, studying also enables students to understand more about the world and the people in it, and to enrich themselves intellectually and culturally. If it turns out that cognitive enhancement enables students to increase the extent to which they understand the world and enrich themselves, then banning it in the interest of ensuring fairer competition for qualifications would be too hasty. In order to decide whether or not to ban it, we would first need to assess whether the value to be gained from banning it and thereby ensuring a fair competition would outweigh the value to be gained from allowing students to enjoy the non-competitive aspects of education more intensely with the aid of cognitive enhancement.

However, banning cognitive enhancement in education would not ensure that students are able to compete on a level playing field. This is the second reason to answer "no" to the question posed above. Consider that, even without access to drugs like Modafinil and Ritalin, most students have to compete with other students who are naturally more intelligent, disciplined, alert, and focused. As such, most students are already at a disadvantage.

It may be objected that, in aiming at a level playing field, we should ignore such "natural" advantages, and concentrate only on ensuring that students have equal opportunities to achieve the best grades given their existing abilities. However, even this does not leave us with a level playing field. Some students are able and willing to employ personal tutors; others are not. Some students spend most of their time out of school studying; others spend their time out of school relaxing or working to earn money. Some students use caffeine or computer software to aid their studying—both of which are types of cognitive enhancement—others do not. Such practices ensure that, even without novel methods of cognitive enhancement, students do not compete on a level playing field. And, that schools and universities do not currently outlaw the use of personal tutors, caffeine, and studying outside of school suggests that maximizing the extent to which students compete on a level playing field is not as important as some opponents of enhancement suggest. An uneven playing field may even be seen as advantageous, in that it can drive students to work harder as they attempt to beat their peers. As such, it is far from obvious that we should aim to create a level playing field by limiting the ways in which students can compete. At the very least, opponents of enhancement need to demonstrate exactly why using drugs like Modafinil and Ritalin is relevantly different from employing a personal tutor or drinking coffee to remain alert.

There is something important to learn from the worry about unfair competition, however. As far as possible, it is desirable to discourage the pursuit of what the economist Fred Hirsch has called "positional goods": those goods whose value to those who have them depends on others not having them. This is because the collective pursuit of positional goods is a waste of time and resources: as Hirsch remarked, "if everyone stands on tiptoe, no one sees better" (Hirsch 1977, 5). If the value of cognitive enhancement rests solely on its ability to enable one to compete better than others for things like educational qualifications, then its use should be discouraged. However, it is unlikely that the value of cognitive enhancement is exhausted by the positional goods it confers. We have seen that it may have value in enabling people like scientists, airline pilots, and surgeons to do their jobs more effectively. And, even in education, where competition for qualifications plays a central role, cognitive enhancement could add value by enabling students to make the most of the non-competitive elements. There is a clear case for banning cognitive enhancement in education only if the value of education is exhausted by the competition for qualifications, because only in such a case is cognitive enhancement a purely positional good when used in the context of

education. There may be some who wish to argue that the value of education is indeed exhausted by the competition for qualifications, and that anyone who believes otherwise is an academic fantasist. However, if this is the case, then the qualifications for which students compete are themselves purely positional goods, and so the argument to ban cognitive enhancement also works to ban educational qualifications.

The worry about cheating is not, as a result, sufficient justification for banning the use of cognitive enhancement drugs. Arguably, the worry about enhancement and cheating is usually overblown. The most important concerns about such enhancement are perhaps those that I initially disregarded: safety, addictiveness, and accessibility. Since these concerns are also among the most philosophically uninteresting, it should not be surprising that philosophical debate about enhancement gravitates instead towards issues like cheating. As in many debates in applied philosophy, however, we must take care not to allow what is most interesting to distract us from what is most important.

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