

Addiction & the Humanities, Vol. 5(5) - A Possible Resolution: Regulation of Cognitive-Enhancing Drugs

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In our past two issues of *Addiction and the Humanities*, we discussed the debate within the medical and legal communities about whether people should use powerful drugs for cognitive enhancement. This last installment of the series advances the discussion from whether people should use these drugs to a consideration of safety, distribution, and legalization.

Safety

Cognitive-enhancing drugs specifically affect [executive function](#), and anecdotal evidence claims that they also improve focus and memory and reduce the effects of fatigue (Beddington et al., 2008; Morein-Zamir, Turner, & Sahakian, 2007; Turner et al., 2003). Researchers have tested one drug, Modafinil, in healthy individuals (Turner et al., 2003) but there is little research on the safe use of other cognitive-enhancing drugs among healthy individuals (Lanni et al., 2008). For example, it is unclear what the difference in dosage for increasing focus would be for a healthy person versus a person with ADHD (Turner et al., 2003). Further, some drugs, such as Ritalin, carry the risk of heart problems and dependency (Hibbert, 2007), two issues that would have to be addressed in order to distribute cognitive-enhancing drugs safely and legally. Lastly, like any other drug, there are unsafe black-market versions of cognitive enhancing drugs available to buyers; it is important to alert the public to the dangers of using these unsafe versions that could lead to lethal side effects.

Distribution

The widespread use of cognitive enhancing drugs for self-improvement also brings up the issue of fairness and equal access (Dekkers & Rikkert, 2007). As more people request to use these drugs, legislators, researchers, and clinicians will have to work together to ensure that groups of people with a greater need will always be given priority access to cognitive enhancing drugs. Furthermore, a

discussion about access ought to stimulate discussion about where people should be purchasing cognitive-enhancing drugs (i.e. prescriptions vs. over the counter availability).

Legalization

Although cognitive-enhancing drugs such as Ritalin, Adderall, and Modafinil are legal, there are issues surrounding use, supplier authorization, and possession that will have to be addressed. For example, if cognitive enhancers can only be obtained via prescriptions, then regulations will have to be put in place to determine how much of each substance an individual is allowed to have in their possession. Furthermore, discussion of necessary rules and regulations should encourage discussion about whose responsibility it will be to make these rules (i.e., legislators vs. clinicians)

Conclusion

The use of cognitive enhancing drugs is already fairly common (DeSantis et al., 2008; Greely et al., 2008). In fact, some experts consider these drugs the next logical step in human self-improvement (Greely et al., 2008). However, if we, as a society, are willing to legitimize the use of drugs for cognitive enhancement, then we must also accept the unavoidable changes that they will bring to opportunities for success, academics, and even creativity. In order to manage cognitive-enhancing drug use, there needs to be enough regulation to prevent harm.

- Ingrid Maurice

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References

Beddington, J., Cooper, C. L., Field, J., Goswami, U., Huppert, F. A., Jenkins, R., et al. (2008). The mental wealth of nations. *Nature*, 455(7216), 1057-1060.

Dekkers, W., & Rikkert, M. O. (2007). Memory enhancing drugs and Alzheimer's disease: enhancing the self or preventing the loss of it? *Med Health Care Philos*, 10(2), 141-151.

DeSantis, A. D., Webb, E. M., & Noar, S. M. (2008). Illicit use of prescription ADHD medications on a college campus: a multimethodological approach. *J Am Coll Health*, 57(3), 315-324.

Greely, H., Sahakian, B., Harris, J., Kessler, R. C., Gazzaniga, M., Campbell, P., et al. (2008). Towards responsible use of cognitive-enhancing drugs by the healthy. *Nature*, 456(7223), 702-705.

Hibbert, K. (2007, November 8). Ways to make you think better. guardian.co.uk.

Lanni, C., Lenzken, S. C., Pascale, A., Del Vecchio, I., Racchi, M., Pistoia, F., et al. (2008). Cognition enhancers between treating and doping the mind. *Pharmacol Res*, 57(3), 196-213.

Morein-Zamir, S., Turner, D. C., & Sahakian, B. J. (2007). A review of the effects of modafinil on cognition in schizophrenia. *Schizophr Bull*, 33(6), 1298-1306.

Turner, D. C., Robbins, T. W., Clark, L., Aron, A. R., Dowson, J., & Sahakian, B. J. (2003). Cognitive enhancing effects of modafinil in healthy volunteers. *Psychopharmacology (Berl)*, 165(3), 260-269.