Ethical Arguments for the Use of Cognitive Enhancers

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I. Abstract

Issues surrounding the use of cognitive enhancers by healthy adults have given rise to numerous ethical concerns. It may be considered unnatural, unfair to those who cannot or do not use them, or unsafe in certain ways, and therefore some consider it morally impermissible on these grounds. However, I argue that limiting the use of such drugs to those with valid prescriptions is immoral in its own right, as it infringes upon our rights. It appears detrimental to society to limit use in this way, as we hold ourselves back from general improvements to everyday life, as well as from dramatic improvements as a result of new discovery. I argue that nearly every aspect of life can be improved through the use of such enhancers, and I propose the cognitive enhancers could make the world a safer place. I analyze enhancement in such a way that forces opponents to evaluate why they oppose cognitive enhancers, and how their opinions may change in the future as better drugs become available. I address the benefits of increased competition that would certainly result from the use of these pharmaceuticals. I conclude by conceding that more research must be done as so little is known about the use of these enhancers by healthy individuals, but I claim with valid reasoning that it should be morally permissible for such drugs to be used by anyone of age.
II. Introduction

Humans have always strived to improve themselves both as a community of people and as individuals. We work tirelessly as a race to better our standard of living and to make our lives easier through advancements in technology, medicine, and many other aspects of everyday life. It is obvious that our lives could be dramatically altered in a positive way if our general cognitive abilities are improved. Many arguments against cognitive enhancement appear contradictory or poorly supported. In this paper I will discuss reasons why cognitive enhancement, particularly through the use of pharmaceuticals, should not only be accepted, but encouraged.

The purpose of the focus on pharmaceutical enhancement is due to the fact that it is one of the most controversial methods of improving cognitive function, as opponents maintain that it is unnatural and that it creates many more problems than it alleviates. Evaluating how cognitive enhancement can benefit everyone in society, and how use of such enhancement includes minimal drawbacks, is important for anyone discussing this topic. Cognitive enhancement, for the purposes of this paper, refers to the improvement of executive function or general cognitive abilities through the use of drugs such as Adderall, Modafinil, and Ritalin. Executive functioning simply refers to the control of many cognitive abilities such as reasoning, memory, and critical thinking skills. Non-pharmaceutical methods of cognitive enhancement will not be included in the interest of time. I will argue that cognitive enhancement by pharmaceutical means should be supported, as it only hopes to benefit society and the individuals within it. Nearly every aspect of our lives could be improved with cognitive enhancement, and it should be considered a morally permissible action for a citizen of any place to take.
III. Arguments

i. Limiting Cognitive Abilities is Detrimental

There is no reason that we should set restraints on the limits of our cognitive abilities. Many claim that enhancing our executive functions would exceed what is “natural” for an individual. However, proponents of this standpoint often fail to define what constitutes “natural.” It is difficult to conclude that our current average level of cognitive functioning, whatever it may be, is the extent of what should be allowed. If one cannot make this argument, then it seems to follow that cognitive enhancement should be acceptable on some level. Caffeine and nicotine are known to produce some benefit to an individual’s cognitive functioning, and these are accepted in today’s society. It seems unreasonable, then, to exclude enhancement by pharmaceutical means solely on the grounds that cognitive enhancement is inherently wrong. It has been stated that cognitive function should have a discernible and measurable limit, and therefore that we should operate to find some “optimum” level of cognitive ability. This may not even be entirely logical. Even if we could create some way to measure and limit the entirety of our intellectual abilities, it does not necessarily follow that we should. If we can continue to safely improve our cognitive function, and increase our intellectual capacity, then a reasonable person should understand why cognitive enhancement may be morally permissible. Knowing that we could continue to better society through enhancement, it would be obviously detrimental to discourage such action.

ii. General Improvements to Everyday Living

It seems difficult to refute that cognitive enhancement could help improve everyday living for the majority of individuals. Studies have often shown that cognitive enhancers such as
Modafinil improve many aspects of executive functioning, including memory, focus, and reaction time in healthy individuals as well as impaired ones. One can only imagine the implications of such general improvement, including improved safety in driving, more focus and attention during daily activities, and better decision-making in various work environments. Consider, for example, a surgeon who operates with much more focus and success than usual due to the use of a cognitive enhancer that allowed him or her to work more efficiently. In considering such cases it would appear ridiculous to deny the potential benefits of such drugs. It seems that an argument encouraging cognitive enhancers would be supported on moral grounds, especially by those who choose to take a Utilitarian stance, as it only hopes to promote the greater good.

iii. Greater Improvements

It is well-documented that gains in cognitive function appear moderate in most healthy individuals according to a large number of studies done on both healthy adults and younger people. However, two things must be made clear. To start, the premises presented are not necessarily restricted to only include current cognitive enhancers, as many problems do still exist with these drugs. The arguments simply support the idea that cognitive enhancement overall is morally permissible. Secondly, all of these arguments do still hold true if applied to the drugs of today, but they appear stronger when one considers the potential improvements in cognitive enhancers in the future.

With this being said, moderate gains are still gains. With so little being known about the extent of our enhanced cognitive abilities, it seems important to consider the possible benefits. Previously, general improvements to the lives of ordinary citizens were discussed. Now one
should consider the impact such enhancement may have on those with notably higher levels of intellectual capability. If these individuals can be enhanced, what may result? Perhaps a scientist on the brink of curing cancer may benefit from more focus and increased critical thinking. Perhaps a researcher attempting to create a room-temperature superconductor and change the world of energy and technology would relish a little boost in cognitive functioning. One can clearly see how these situations benefit not just an individual, but the whole world. Therefore, one might conclude that holding individuals back from using these drugs may not just infringe upon that one person and their respective rights, but it may possibly prove detrimental to the world by eliminating potential discoveries and the resulting societal impact.

iv. Education and Entertainment

With cognitive enhancers’ abilities to improve impulse decision-making and aid in other areas of cognitive functioning, then one may see how it may benefit large numbers of people from different career fields. Aside from the research and discovery aspects mentioned earlier, one should think about the potential impact of cognitive enhancement in education. Teachers and professors may utilize such enhancement to improve classroom lectures, grading, feedback, and many others aspects of education. Higher levels of focus and attention would clearly be beneficial to both the teacher and his or her assistants.

Students may also find use in cognitive enhancers. Improved focus and attention could facilitate better learning and study habits, and result in better academic success and increased knowledge. For example, consider a student who is hard-working and intelligent but lacks focus in certain subjects. This student may not have attention deficit hyperactivity disorder (ADHD) or attention deficit disorder (ADD), but may find it difficult to pay attention in classes of
considerably less interest. Our current educational system demands individuals to be successful in multiple areas, but this denies many students from realizing their goals of a college education and an adequate career. Cognitive enhancers may help this student through school, and then they may thrive in a college setting in which they have more control over class choice. Disorders such as ADD and ADHD have diagnostic standards that must be fully met for an individual to be told they have one or the other, and some people may experience some symptoms but not be diagnosed. These people could certainly use the help of cognitive enhancers, but currently may not be able to obtain such drugs legally. Consider other students who have multiple interests but find it difficult to partake in many different activities in one semester due to the amount of time and effort required. Cognitive enhancement could increase these students’ ability to interact with many different organizations or projects, and thus achieve more both in and out of the classroom. Frankly, it seems that cognitive enhancement in all areas of academia would be morally permissible; such drugs do not increase intelligence, but rather allow one to focus and operate with higher executive functioning. The student is still working and earning the knowledge obtained, and therefore we should not deny this person these opportunities.

Entertainers of all sorts could find use of cognitive enhancers as well. Professional and non-professional athletes have been known to use cognitive enhancers as a type of performance-enhancing drug\textsuperscript{vii}. One can clearly see how this would benefit the athlete, as increased focus and reaction time can greatly influence the outcome of individual plays in sports, many of which can be drastically altered in fractions of seconds. The argument over the ethics of performance-enhancing drugs (PEDs) in sports is not included because it is a lengthy one, but it is undeniable that cognitive enhancers benefit the athlete in his or her respective sport. If such PEDs were legal, performance would likely rise, and the entertainment value of each sport would
presumably go up. Higher entertainment value means more money, and more money (either for the individual or for the sport as a whole) benefits many in multiple ways. Perhaps it opens the door for increased salaries and thus donations from those motivated by philanthropy. Entertainers beyond just athletes may also be included in the discussion, as increased focus and decision-making leads to increased work ethic, and thus more music, more movies, and again, more money. With all of the above taken into consideration, it would seem challenging to argue strongly against cognitive enhancement in modern society, and nearly impossible for a reasonable person to argue against a futuristic, harmless type of enhancement, that will be discussed further in the following passages.

v. Thought Experiment That Might Change One’s Opinion

It is of the utmost importance for those who oppose cognitive enhancement as a whole to define a stance that holds true even upon discovery of improved drugs. For example, many oppose the use of such drugs because they come with inherent health risks, or because the effects are temporary, meaning that any action performed under the influence of these drugs is not an accurate representation of our true abilities. However, these kinds of opposition do not address the basis of cognitive enhancement, but rather they address the lesser issues accompanying it. Consider the following thought experiment. If a permanent and harmless method of cognitive enhancement was available, allowing the recipient to bask in improved executive functioning for the rest of that individual’s life, would we permit it for use in healthy people? This would seem to eliminate all opposition based on health or the idea that enhancement is temporary, and if one agrees that such a technique or drug would be morally permissible, then they support the underlying idea of cognitive enhancement.
If one does not agree, and still stands against cognitive enhancement, then there are likely moral dilemmas such as availability and fairness present. With that being said, a reasonable person would likely support even modern use of cognitive enhancers in many aspects of life, as the potential benefits seem to outweigh the harms. Also, such a reasonable person would likely conclude that denying the use of such pharmaceuticals is an infringement upon a person’s right to choose what they do to their bodies while not affecting anyone else. This is a moral issue of great importance, as will be discussed later.

IV. Objections and Responses

i. Unnatural and Unaffordable

Opponents of cognitive enhancement through pharmaceutical means will often state that the use of such synthetic drugs is unnatural. They claim that it takes us beyond what we are naturally capable of, and allows us to do things that we could not otherwise do. Thus, they believe that such drugs should not be permitted in healthy individuals. Many of these arguments will have religious roots, and while religion may not always be a strong basis for support in philosophical discussions, it certainly rouses support from the community against anything that is not considered “God-given.” I do not mean to claim that this is a weak argument; I only mean to address the apparent reasoning behind the argument that such drugs are unnatural.

Another claim opponents will make is that such distribution of cognitive enhancers will lead to a larger disparity between the upper and lower classes than what is already observed. The reasoning behind this idea is that such drugs would likely be available only to the middle and upper class individuals with the financial means to purchase them. Then, assuming the drugs do enhance cognition and allow individuals who take them to be more successful, the gap between
socioeconomic classes would widen. Many claim that this would ultimately be harmful to society as class separation alienates lower-class citizens more than they may already be.

ii. Response

Aside from the fact that such an objection is seemingly based on religion, there are a couple of issues with stating that using synthetic drugs is unnatural. As mentioned earlier in the paper, the opposition almost always fails to define what is “natural.” This is an important concept that opponents must address for this point to have substantial merit. Also, one could argue that such drugs do not necessarily allow us to do things that we were not capable of, but instead they allow us to do things that we were not trying to do before. To make this point clear, consider the idea that all healthy individuals have the capacity to focus and think critically to some extent, and that we could likely promote improved cognition without this drug if we so desired. Therefore, is it unnatural if we are not doing anything beyond what is naturally possible? If one still considers it unnatural because it is synthetic, then is it morally wrong to use a drug to improve our lives assuming the end result is the same as using any natural method? Much time and effort could be saved, or spent doing something more useful, if drugs were used to promote a state of heightened cognition rather than other methods. Therefore, it seems that arguing whether or not the use of cognitive enhancers is natural is insignificant, as “natural” is not well defined, and in either case such use is clearly beneficial. A further point to be made is that natural limits can shift. If we were to enhance the cognitive abilities of a certain population of people permanently, our determination of average intellectual ability would be altered, and therefore what is considered “natural” may change. Such discussion is greatly affected by an individual’s definition of “natural.”
In response to the idea that the drugs would not be affordable by all, and that a larger gap in socioeconomic classes would result, it seems that the objection fails on a couple of levels. First of all, any opponent supporting this claim would be recognizing the benefits of cognitive enhancers, because if they did not have the benefits described in the earlier arguments, then their use would not cause much change. In this way, an opponent would be accepting a point in favor of cognitive enhancement while trying to object to another. Also, it does not seem that the wealthy getting more successful negatively impacts the less privileged, as they would still maintain their social status. In fact, the wealth may be distributed more evenly as individuals of lower intellectual capacity become more successful and thus wealthier, and spreading of the wealth would not be detrimental to the lower classes. Therefore, accepting the objection that the drugs would not be affordable by all, and thus not be fair to all, would defeat the points brought up in separate objections, weakening the overall counterargument. Going a step further, the drugs may end up benefitting the lower class even if they were not affordable, because advancements in medicine and technology would benefit all, even if an upper-class citizen brought such advancements about. It would be difficult to argue that such advancements would not come about, because it has been established that supporting this objection of affordability weakens the argument against the success of cognitive enhancers. Some claim that the social ramifications for the poor would be too great to justify, but this claim assumes that the drugs will always be expensive, and that the potentially widened gap in social class outweighs potential life-changing improvements. I will, however, keep in mind that some opponents only agree with some of the points mentioned, and not all, but these points of opposition are the major ones discussed today.
iii. Health and Social Impact

There are potential adverse effects related to the consumption of current cognitive enhancers, particularly when taken in excess or with alcohol. Instances of seizure, psychosis from repeated use, and myocardial infarction have been noted in individuals abusing the drugs. Although abuse potential is considered very low, and dangers only appear to arise when dosages larger than prescribed are taken, it is of some importance that the drugs raise health concerns. Opponents to cognitive enhancers will argue that it is dangerous to legalize and promote the usage of such drugs, and every life lost as a result would be a tragedy. Legalization would also lead to an increase in the resulting side-effects, and if doctors are unable to prescribe the drugs to only those capable of safely using them, the danger increases. There are risks associated with misuse of these drugs, and this gives rise to a powerful argument against current use of such compounds. Also, opponents will indicate the lack of knowledge about long-term effects in healthy individuals, maintaining that the drugs may pose some threat to long-term health. Without studies to refute such a claim, opponents will argue that it is better to be safe rather than sorry, for lack of a better phrase.

Opponents may also claim that enhancing one’s cognitive abilities would likely lead to changes in personality. Claims that heightened cognition would result in changes in values and perspectives are not strongly supported by data, but the indication is clear and sound. Perhaps one would witness changes in personality due to enhanced cognition similar to what is observed in those with Alzheimer’s who are losing cognitive abilities. This is entirely possible. Intellectual abilities certainly do impact our lives in more than just professional or academic areas, as our level of intellect is reflected in our personal relationships and feelings about a
number of topics. Changes in intellect, then, would likely result in changes in personality. This would possibly create unwanted social change in our individual lives.

iv. Response

In relation to the concern about health, it is important to note that stimulants, even when used by healthy individuals, are considered relatively safe and have quite a low abuse potential. Many of the health risks, as designated by opponents of cognitive enhancement, result only when large dosages are taken. This happens to be the case with many other drugs currently available on the market. We rely on proper education about the use of pharmaceuticals to maintain the safety of them. Having them illegal to healthy individuals who we know sometimes use them seems to be a bigger issue in this case, as education about such drugs is poor. Legalizing and educating may result in less misuse. In response to the idea that much is unknown, one must understand that the potential benefits are great, and if more support for such drugs was given, more experimentation would likely be done to uncover the impact of repeated use in healthy individuals. I am not suggesting that we should begin using these drugs and ignore all risks, but rather that we should delve into the research a little more instead of leaving such knowledge unknown.

My response to the second objection is similar, in that the objection is based much on what is unknown, and does not consider the possibility of researching the effects. Even if cognitive enhancement does impact our personalities, it would seemingly not matter if everyone were using them. Also, if such drugs were permitted for use by healthy individuals, it does not follow that everyone would be using them all the time. Temporary enhancement would not likely result in dramatic personality differences. Even if it did, enhanced cognition would possibly lead
to greater insight into the meaning of deep, personal relationships, which may actually improve as a result. Comparing a person with heightened cognitive function to an individual with Alzheimer’s does not seem reasonable, especially considering the extent of the damage that Alzheimer’s causes. It seems unrealistic to say that the same would occur with the use of cognitive enhancers.

v. Earned but Not Deserved

An important argument opponents would make that may not be as widely discussed is the idea that the allowance of cognitive enhancers could lead to several problems in career fields, and even other areas of interest. Basically, an opponent would provide an example of a person using cognitive enhancers to pass a certain test or meet some requirement to get into a particular career field or earn a specific job, and then state that this person may fail in that position. The idea here is that this person may have used something that gave them an unfair advantage and thus received a position that someone else may be better suited for. The notion that someone could potentially earn something that they did not deserve promotes the idea that cognitive enhancers are unnatural and should not be allowed for use in otherwise healthy individuals.

vi. Response

This particular objection may be one of the strongest, but it is still flawed. Assuming the use of cognitive enhancers was permitted, then one person taking them and achieving some sort of success while another chooses not to really does not constitute an unfair advantage. The drugs were likely available to both individuals, and one chose to take them while the other did not. Also, a person who chooses to legally utilize cognitive enhancers during school, testing, job interviews or anything along those lines will probably continue to use them in that field, and
therefore the success would presumably continue. The one situation that makes this objection strongest is the one in which a person earns a position using the drugs, and then happens to find out (assuming they did not know in advance) that the drugs are illegal for use in this field. This situation is more difficult to account for, but not impossible. Again, the drug does not increase knowledge. It provides a way of focusing to help one increase intellectual abilities. Therefore, the person who earned any position using the drugs is not less intelligent after quitting their use, they must simply use other methods to help themselves focus.

vii. Lack of Benefit for Healthy Individuals

Another claim opponents would commonly make is that evidence has shown that healthy individuals, particularly those of substantial intellectual ability, show little improvement with the use of cognitive enhancers. This has been demonstrated in a number of studies and discussed by many in opposition to the idea of pharmaceutical cognitive enhancement, because it implies that impaired individuals and those of lower intellectual capacity are the only ones who truly benefit from the use of such drugs. This would lead one to believe that such drugs should not be allowed for use in healthy individuals because the risks, in this case, appear to outweigh the benefits.

viii. Response

The idea that the drugs may not particularly benefit individuals with higher intellectual capacity does not seem to be a strong objection to their use. Reason being, studies on such lessened benefit are inconclusive. It appears that the drugs impact people differently, even among individuals of similar intellect, and rarely in a negative way. With that being said, legalizing the use of such drugs among healthy individuals does not mean that all would be
forced to use them. If a drug does not benefit a particular person, then they are under no obligation to take it again. This may even result in a closing of the gap in intellectual abilities among students, and possibly even adults, as those with lower intellectual capacity find improvements through the use of the enhancers, and those who do not find them beneficial remain the same. This would allow students to compete and possibly contribute more to some field of study than they might have otherwise, and the ensuing competition might encourage other students to work even harder. The potential benefits of increased competition and increased cognition in those who need it are clear.

V. Conclusion

Understandably, much more research must be done on the topic. Nobody knows for certain what impact repeated use of these drugs may have on healthy adults. This information would be necessary for this argument to be complete. Few, if any, papers have ever discussed the future of cognitive enhancement as I have done in this paper. The importance of this is that it serves to eliminate much opposition, such as that based on health concerns. This challenges individuals to consider cognitive enhancement at its core, and ask themselves why they may disagree with use of pharmaceutical enhancers by healthy adults for reasons other than health issues. This brings a larger ethical background into the argument which is rarely discussed. Also, few other papers mention individuals who fall short of diagnostic standards for certain disorders, but still exhibit symptoms that make them clear candidates for beneficial use of cognitive enhancers. Aside from these small contributions to the ethical arguments on cognitive enhancement, I have suggested an important point that I have seen nowhere else in current literature relating to the topic, and that is the idea of increased competition. Knowing that we tend to be competitive by nature, in almost every aspect of life, it seems clear that cognitive
enhancement by some members of the population would serve ultimately to increase competition between groups of people. Competition, as long as it is carried out in a civilized manner, promotes more focus and, for lack of a better phrase, brings out the best in us.

One should now understand the premise behind cognitive enhancement through pharmaceutical means being considered morally permissible. It looks to promote the general betterment of society, and of the individual, and therefore it should clearly be considered from an analytical standpoint rather than one based on religion or fear of the unknown. We cannot define the limits of our intellectual abilities, and therefore it stands to reason that integration of a way to enhance our cognition is of considerable interest. If we can find ways to better ourselves in any way while producing little harm, then it should be preferable in almost every case to do so. Enhancing our cognitive abilities would lead to improvements in everyday life, improvements in entertainment and recreation, heightened safety, and possible advancements in medicine or technology that could change the world.

There are inherent risks involved with use of current cognitive enhancers, and there are questions as to whether or not they are truly beneficial to everyone as of now. Perhaps it is not quite clear without further research whether everyone should use cognitive enhancers as they are. What is clear, though, is that we have a right to choose what we do with our bodies, and with these drugs being relatively safe, there is no reason that a healthy individual should not be allowed to use them if they so desire. Of course regulations must be in place if such use is ever permitted, such as when and where use of drugs will be tolerated, but cutting healthy individuals off from a potential source of improvement is difficult to justify. Going a step further, it would seem challenging to refute the use of cognitive enhancers on moral grounds if such enhancers were improved to be cheap, efficient, and virtually harmless. Until then, however, one must
realize that a reasonable analysis of cognitive enhancers would result in support for the morally permissable use of them by healthy adults.
Bibliography


Endnotes


