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The Moral Permissibility of Pharmacological Cognitive Enhancement

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Abstract: The growing popularity of pharmacological cognitive enhancers (PCE) has been confronted with ethical questions revolving around safety, fairness and autonomy. In addressing each of these concerns, three fundamental bioethical principles (beneficence and nonmaleficence, justice and autonomy) are used as framework upon which I develop arguments justifying the moral permissibility of pharmacological cognitive enhancement. The discussion supports the claim that barring abuse and misuse, use of PCE is morally permissible, but mandatory use of PCE must be rejected.

Key Words: Cognitive enhancement; nootropics; beneficence; justice; autonomy

1. SMART-DRUGS CRAZE

More and more individuals are using nootropics or “smart drugs”. These are pharmacological cognitive enhancers (PCEs) or pharmacological interventions in the form of drugs and supplements that purportedly enhance cognitive function in the form of improved attention, focus, working memory, concentration and executive function. Wall Street and Silicon Valley as well as the academic and scientific communities are said to be where there is prevalent use of drugs like *Adderall*, *Ritalin* and *Modafinil*. There are also reports about its use in the military, especially by helicopter pilots (Mehlman 2004).

There are no known studies conducted in the ASEAN community concerning the extent of use of pharmacological cognitive enhancement (PCE). A

quick check with online shopping sites clearly indicates the availability of smart drugs in the region. The foreseeable outcome of such a study if undertaken would definitely show that use of PCE in the ASEAN region does not reach the high level of utilization in US and UK. The journal *Nature* reported that 1 in 5 of its readers had taken PCE. In 2013, the *Care Quality Commission* reported a 56% increase in prescription for Methylphenidate (*Ritalin*) in England in a period of 5 years (Donnelly 2013).

2. PCE AND ETHICS

It is just a matter of time before these pills get peddled in our local communities and replace the more popular energy drinks that students and night-shift workers use to stay awake. But just as intellectuals from the West are already engaged in debates about the ethics of PCE, there is a pressing philosophical concern for exchange of views about the ethical status of utilization of PCE even in a



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developing economy like the Philippines. If use of PCE cannot be ethically justified, then it may become part of the “drug problem”, and government leaders would have to take positive steps to prevent its wide-scale distribution.

While humans have long been interested in improving cognitive capabilities, recent advancements in the fields of biochemistry, neuroscience, medicine and pharmacology that lead to the development of PCEs gave rise to an ethical issue: Is it morally permissible to use pharmacological intervention to enhance cognitive function? The issue here is not about the ethics of cognitive enhancement per se, but the use of brain enhancement technology, and in this case, PCE.

Cognitive enhancement refers to the “amplification of core capacities of the mind through improvement or augmentation of internal or external information processing systems” (Bostrom and Sandberg 2009). By cognition, we mean the “processes an organism uses to organize information ... including acquiring information, selecting, representing and retaining information, and using it to guide behavior” (Bostrom and Sandberg 2009).

3. THREE CONCERNS, THREE PRINCIPLES

Improved cognitive performance can lead to greater productivity, produce positional advantage, and in certain cases, even financial gain. As Warren Buffet’s famous line goes: “The more you learn, the more you earn.” While benefits from pharmacological cognitive enhancement are desirable, important ethical objections have been raised concerning its use because of issues about safety, fairness and autonomy (Greely 2010, Mohamed 2014). Our philosophical investigation into these objections will show that though these issues are legitimate concerns, they do not warrant rejection of moral permissibility of PCE.

Here I propose to articulate philosophical justification for the claim that barring abuse and misuse, use of PCE is ethically permissible, but mandatory utilization of PCE must be rejected. Three fundamental bioethical principles of beneficence and nonmaleficence, justice, and autonomy (Beauchamp and Childress 2001) provide the framework upon

which arguments concerning ethical permissibility of PCE are based.

3.1 SAFETY

Documented and foreseeable biological harms of PCE lend credence to reservations about its use. Toxicity and dependence are among the foreseen side effects of its long term use. Specifically, Rxlist.com lists weakness, headache and blurred vision, feeling restless, irritable or agitated as common side effects of Adderall. Modafinil may cause insomnia, headache and stomach ache in some users, but even a heavy overdose of it does not lead to death.

These biological harms or side-effects are avoidable if health care professionals involved in research, manufacture, distribution and dispensation of PCE would take precautions guided by the principle of beneficence (obligation to do good to others) and nonmaleficence (obligation not to inflict evil or harm). The fact that healthy individuals without medical indications of ADHD and narcolepsy are able to obtain Adderall and Modafinil further sustains suspicion concerning safety. These are regulated prescription drugs intended for specific therapeutic intervention, and hence when healthy individuals are able to avail of these, they do so illicitly, and expose themselves to the possibility of biological harm. It is not a misplaced optimism, however, to expect that in the near future, a “safer” pill will be out in the market, approved and appropriately labeled as dietary supplement. When this happens, interested users then will find no need to violate or circumvent the law to obtain supply.

It appears then that since the objection against PCE focuses on the safety of *specific* drugs, then, it is not an insurmountable objection if among the class of PCEs there is at least one token drug that could pass the test of safety.

3.2 FAIRNESS

The benefits of PCE extend to social and economic domains. The issue of fairness has been raised because enhanced cognitive performance gives the beneficiary, the user, an advantage over those who do not, and possibly cannot afford to, use these expensive pills. Social inequality might be



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exacerbated by cognitive enhancement, and this leads to further marginalization of the poor (Savulescu 2009, Mohamed 2014).

Guidance regarding this issue comes from the principles of justice construed as fairness, which emphasize equality of opportunity and access to medical resources. Implementation of sound public policy can guarantee that these are affordable and readily available. The Philippine experience of regulating medicines through the Universally Accessible Cheaper and Quality Medicine Act of 2008 (Republic Act 9502) has demonstrated how government can exercise political will to mitigate difficulties in obtaining medicine. If there is opportunity for everybody to gain access to PCE, then it would *not* be unfair if certain individuals would perform better when aided by PCE while others could not perform at the same level because they opted not to use PCE. This situation is better characterized as unfortunate, not unfair (Greely 2010).

On the bright side, once access to safe PCEs is guaranteed, developing countries may be able to participate in the global economy, reap social and economic benefits, reduce natural inequality and promote social justice (Savulescu 2009).

3.3 AUTONOMY

What happens when PCE acquires mainstream status is open to speculation, and some quarters are worried about possible threats to personal autonomy. It is possible that employers will require employees to take smart pills to perform tasks that demand prolonged wakefulness, focus and concentration. Is it morally permissible for the person in power or authority to demand that a worker use PCE on pain of termination from work and replacement by a more willing employee? In US military, enhancement drugs may be issued to soldiers in combat, and although pilots cannot be required to use amphetamines, those who refuse may be denied the opportunity to fly combat missions (US Navy 2000). Scenarios like these cast doubt over moral acceptability of PCE since its utilization is mandatory, or at the very least, coerced.

The principle of autonomy supports the idea of self-determination or individual decision-making on matters pertinent to personal well-being and self-realization. It guarantees that choosing the means to

enhance one's capacities is a matter of personal decision, be it through PCE or natural enhancement techniques or even through meditation and spiritual exercises. What matters is that in all cases, informed consent must be sought from capable individuals. This provides reason for the rejection of mandatory use of PCE or any brain enhancement technology despite the foreseen benefits it may bring.

The case of children is more serious. Parents want their children to perform better in different aspects of life, especially in the intellectual aspect. Parents can actually decide on behalf of their children by virtue of personal paternalism since young children are incapable giving informed consent. Just as the ritual of consuming a glass of milk and ingesting multi-vitamins every morning can become mandatory by virtue of parents' orders it is not far-fetched that PCE would form part of the regimen. Given, however, that the brain does not develop completely before the age of 25, PCEs are not needed by, and would not produce the foreseen benefits on, young children. Parental coercion in this regard is not only morally unacceptable but pointless as well.

4. CONCLUSION

The ethical use of pharmacological intervention to enhance cognitive function is challenged on several grounds. To address each challenge we appeal to fundamental principles of bioethics, and conclude that proper utilization of PCE is morally permissible only to the extent that the demands of beneficence and nonmaleficence, justice and autonomy are complied with.

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