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Cognitive and Mood Enhancement: Bioethical Aspects

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Abstract: "Enhancement" indicates the intentional intervention of alteration of the body and mind of a person in relation to 'normal' physical and psychological functioning. Cognitive and mood enhancement focus on the specific enhancement of rational and emotional abilities. The paper will analyze the most relevant bioethical aspects of this issue, with special attention to the dialectic enhancement/achievement and the philosophical distinction between a quantitative consideration of intelligence and emotions and their qualitative dimension. The use of cognitive enhancers may increase the medicalization and may lead to a sort of 'drug-centeredness' attributing to chemistry the power to shape human beings, without considering the relevance of personal and interpersonal virtues.

Keywords: cognitive enhancement, mood enhancement, achievement, medicalization, virtues.

'Enhancement' indicates the intentional intervention of alteration of the body and mind of a person in relation to 'normal' physical and psychological functioning (i.e. the use

of psychotropic drugs to enhance memory, to increase intelligence, to select unpleasant or traumatic memories).

Pharmaceutical and technological enhancement outlines a new sphere of bioethics which requires a specific reflection on the aims of medicine, the meaning of cure and care, the boundaries between health and disease, the determination of what is normal and pathological, but also the meaning of human nature and social justice.

This issue is strictly connected with neuropsychology, where the boundary between therapies and 'beyond' therapy becomes particularly difficult to identify. In this field there is a process of progressive medicalization that has affected the intellectual and emotional sphere. The 'normal' emotional reactions of human beings to the circumstances of life (frustration,

stress) have been gradually 'pathologized', legitimising the increasing use of the medical prescription of psychotropic drugs.

It is increasingly difficult to distinguish between cognitive enhancement and mood enhancement, since their relationship is strictly interconnected. Biomedical intervention improves the state of mind and at the same time may have positive effects on cognitive functions, calming anxiety; similarly, an improvement of certain mental abilities may have positive effects on the emotional sphere.

The paper will analyze the most relevant bioethical aspects of this issue, specifically the dialectic enhancement/achievement. The cognitive and emotional functions can be improved in a more lasting manner through education and personal engagement, social life and interpersonal relationships, learning, continuous stimulation of interests, healthy lifestyles. It is a path that clearly requires quite an amount of time, strong effort and effective determination, but it is more respectful of the opportunities for growth and development of personal and relational identity. Medicalisation of everyday life is a quicker and 'easier' solution (a 'pharmacological shortcut') to difficulties, but with

possible negative consequences both on health and on psychological status.

On a philosophical level, the factors underlying the non-medical use of these pharmaceuticals may be identified in a reductive anthropological vision, which considers intelligence and emotions in a quantitative manner with the increase-expansion of notions, without considering that intelligence involves a qualitative dimension and needs a solid emotional "foundation" to be developed. The use of *cognitive enhancers* may lead to a sort of 'drug-centeredness' attributing to chemistry the power to shape human beings, without considering the relevance of personal and interpersonal virtues.

1. Enhancement: definition

'*Enhancement*' indicates the intentional intervention both pharmaceutical and technological of alteration of the body and mind of a human being in relation to 'normal' physical, mental and emotional functioning (1). There is a general distinction between a moderate form of enhancement, that is the pharmacological improvement of existing human functions (i.e. the use of psychotropic drugs to enhance memory, to increase intelligence, to select unpleasant or traumatic memories) and a radical enhancement, that is the technological creation of new organic and mental

features (e.g. the ability to read the minds of others, cerebral electrical neuro-stimulation, the implanting of mechanical or artificial prostheses into the brain). The first meaning of enhancement is the one already diffused, which poses concrete ethical questions, which need to be considered also with a view to highlighting the different profiles and stimulate a more informed public debate on the matter. The second meaning opens up future scenarios, which may only be anticipated through imagination.

Pharmaceutical cognitive and mood enhancement outlines a new sphere of bioethics which requires specific reflection on the goals of medicine, the meaning of cure and care, the boundaries between health and disease, the determination of what is normal and pathological, but also the meaning of human nature and social justice. It is increasingly difficult to distinguish between cognitive enhancement and mood enhancement, since their relationship is strictly interconnected. Biomedical intervention improves the state of mind and at the same time may have positive effects on cognitive functions, calming anxiety; similarly, an improvement of certain mental abilities may have positive effects on the emotional sphere.

The use of substances of various kinds (caffeine, nicotine, amphetamines) meant to improve intellectual and emotional performance is not a novelty; the `novelty` today is, rather, the availability of pharmaceuticals, developed and tested for the treatment of neurological syndromes and diseases (Alzheimer's, Parkinson's, dementia syndrome, attention deficit and hyperactivity, narcolepsy, autism) whose use by `healthy` individuals would seem to increase memory (2, 3), concentration and learning, and emotional control. Neuroenhancers or nootropics may be used in non medical fields as smart drugs, cosmetic neurology, brain doping, etc.

2. The context of development

This issue is strictly connected with neuropsychology, where the boundary between therapies and `beyond` therapy becomes particularly difficult to identify.

In this field there is a process of progressive medicalization that has affected the intellectual and emotional sphere. The `normal` emotional reactions of human beings to the circumstances of life (frustration, stress) have been `pathologized` and introduced in the psychiatric language, legitimising the increasing use of the medical prescription of psychotropic drugs. It becomes much

more difficult in our society to distinguish between those who take these drugs to restore a compromised mental balance, those who want to optimize their psychological functions and those who aim at improving their cognitive performances in the sphere of education and work, in a society that pushes towards the best possible outcome¹. This trend is supported by the broad definition of health proposed by the World Health Organization which identifies health as 'a state of complete physical, mental and social well-being', beyond the strict identification of health as absence of illness in an objective medical determination. Such a definition emphasizes the subjective dimension in drawing a distinction between health and disease. Blurring borders between health and illness leads to a blurring of the distinction between therapeutic and ameliorative effects.

3. The pluralistic ethical debate on enhancement

The liberal-libertarian (4-7) theory, rooted in an individualistic anthropology in the context of a relativist ethics, places the principle of autonomy as self-determination at the centre of the bioethical reflection. The libertarian theory recognizes the right 'beyond' therapy, the right to use drugs and technologies even if one is healthy, to enhance, boost or improve

'normal' characteristics. An orientation rises in the direction of 'perfectionism' that defends and exalts the new biotechnological potentials on human nature, looking forward to a radical improvement in the search for the so-called 'perfect health'. Physical, mental and emotional 'enhancement' is considered acceptable whenever there is a line of continuity between pathological/normal condition, therapy/enhancement. A requirement for enhancement must be, as for any other medical practice, the informed consent which expresses the conscious self-determination of the patient who, after being fully informed by the doctor, assumes the responsibility of deciding to intervene on his or her body, even in the case of a non-therapeutic intervention. Each individual has the 'right to improve himself or herself', considering the benefits in relation to their wishes and risks with respect to their health.

The utilitarian theory identifies good with the best balance of joy over suffering. The principle proposed in bioethics coincides with the equal consideration of the interests of sentient subjects, maximizing the preferences and minimizing the frustrations for the greatest number of individuals. This theory legitimizes enhancement insofar as there is a choice that is not too costly for society and involves the improvement of the

quality of life, reducing overall suffering. Enhancement is considered a 'social duty', a duty to 'control' evolution directly, identifying a responsibility if anything in the case of the omission of interventions for the individual and social wellbeing. Enhancement is understood as a phase of evolutionism: natural selection must be replaced with the 'deliberate choice' of the selection process, which makes it possible to achieve the same result (enhancement evolution) more rapidly. According to this standpoint, it is necessary to balance the natural lottery at the physical and social level: enhancement interventions substitute natural selection artificially. Not doing it would mean to cause harm to man and society. In this sense a 'duty of enhancement' (in a general sense) is justified, as a 'duty of beneficence'.

The concept of health in the libertarian and utilitarian concept moves towards 'perfect health', as a choice of self-determination and quality of life. But what is 'perfection' or 'perfect health'? Perfect is one who has no undesired illnesses, but has the individually desired and socially approved features. But what are the selected features? They are likely to lead to the discrimination between healthy and ill, advantaged and disadvantaged: only an individual who is healthy, able to make choices and to calculate one's interests, has

rights; the other individuals (or those who do not yet have or no longer have autonomy, but live in conditions of dependence) or those with a poor quality of life are marginalized from society. This possibility opens up new forms of discrimination and marginalization.

The choice of the 'enhancement' of an already healthy person expresses the desire for perfection by society: a society, however, in which the 'perfect individuals' themselves will end up being inferior to the 'super perfect', where the gap between disability-ability-superability will become unbridgeable. The search for 'perfect health' threatens human dignity and social justice.

It threatens human dignity insofar as it is an attempt to overcome the limits of nature (8-15), in the effort to redesign nature according to desires and arbitrary subjective choices, selecting physical, mental and emotional characteristics that are considered better (but how much better?; on the basis of what criteria?; who is the judge of what is better or worse?; who must be enhanced?).

The search for efficiency and perfection would have no limits; the race towards health risks becoming the expression of the non- acceptance of nature as it has been given to us, of the pre-eminence of subjective will over objective nature. It threatens

social justice insofar as it produces social hierarchies and inequality among those enjoying perfect health and those staying in natural conditions, but also among those who manage to achieve a perfect life and those not able to do it owing to accidental causes, between 'perfect' and 'imperfect'. New forms of discrimination would appear, fostering a mentality of non acceptance and marginalization.

4. The most relevant bioethical aspects of cognitive and mood enhancement

As regards the specific issue of pharmaceutical cognitive and mood enhancement, there are some specific bioethical issues.

4.1. The unproven safety and effectiveness

The neuroenhancers currently used are tested on ill persons (for example, there is experimentation for the treatment of cognitive decline both physiological and pathological), and are not tested on healthy persons. Nothing is known on safety and effectiveness on their use for enhancing purposes.

The ethical requirement for consumption of pharmaceuticals is the balance and proportionality of benefits/risks, where benefits are identified as recovery from illness and risks as with possible negative

consequences and side effects assessed through experimentation. There is no proportionality in taking enhancing drugs as the benefit is the fulfillment of personal desire and the risks are unknown. There is no experimentation, nor are there any epidemiological or at least observational studies on their enhancing use. There is a scarcity of empirical data and statistical results with respect to their possible effectiveness and their harmfulness. Still almost nothing certain is known about the short-term and long-term effects and on the phenomena of dependency that may be associated. Some studies claim that there is an inversely proportional relationship between concentration and creativity: neuroenhancers may increase concentration and blunt creativity and/or other mental functions (16).

There emerges a profile of responsibility of each individual not only towards their own health (in this field informed consent cannot be really informed because of unknown effects) but above all of the physicians who must ensure the appropriacy of the prescription and therefore prevent a non-therapeutic use of these drugs. There is also the possibility of uncontrolled selling of these drugs online, without a prescription and an adequate counseling, with inevitable negative consequences at a personal and social level.

4.2. *Anthropological reductionism: enhancement as a quantitative increase*

On a philosophical level, the factors underlying the non-medical use of these pharmaceuticals may be identified in a reductive anthropological vision, which considers intelligence and emotions in a quantitative manner with the increase-expansion of notions, without considering that intelligence involves a qualitative dimension and needs a solid emotional "foundation" to be developed.

The use of *cognitive enhancers* may lead to a sort of 'drug-centeredness' attributing the power to shape human beings to chemistry, without considering the relevance of personal and interpersonal virtues.

4.3. *The possible coercion of freedom*

There is a discussion on the possibility that this practice could become coercive, directly or indirectly, for the population in general or for specific categories (both in the public and private sector) in terms of the discrimination, marginalization and stigmatization of those refusing to resort to it.

There is a strong request, and a potential broad market, in our competitive society, where the aged population does not bear the loss of memory, where parents want to stimulate their children to reach the best possible result, and professionals

are stressed by an unsustainable pace of work. The strong social pressure drives people to seek to raise the level of their performance in education and work using pharmaceuticals, thus putting their health at risk, due to unknown possible adverse effects, that may be serious and irreversible.

4.4. *Enhancement vs. achievement*

The cognitive and emotional functions can be improved with 'conventional', alternative and 'classic' methods in a more lasting manner which are culturally accepted and that, in most cases, have been practiced for thousands of years- instruction, education, continuous training, mental exercise, mnemonic techniques, and the more recent use of electronic technologies, continuous stimulation of interests, healthy lifestyles (correct nutrition, regular physical activity and rest) and personal engagement, social life and interpersonal relationships.

It is a path that clearly requires quite an amount of time, strong effort and effective determination, but it is more respectful of the opportunities for growth and development of personal and relational identity. Medicalisation of everyday life is a quicker and 'easier' solution (a 'pharmacological shortcut') to difficulties, but with possible negative consequences both on health and on psychological status.

4.5. Equality, justice and fairness at stake

There is the possibility that, leaving the regulation of distribution to the free market, only wealthy people could afford access to expensive pharmaceuticals, such as cognitive and mood enhancers. This could further increase the already existing 'natural' and social inequalities.

A delicate problem concerns the distribution and allocation of resources to the field of cognitive enhancement that may be at the expense of those who need to be cured and cared for. There is also the risk that the spread of the use of enhancers may favor a competitive, egoistic and individualistic view rather than an attitude of cooperation and solidarity towards the needs of the others.

5. The relevance of raising critical awareness

It is very important to find suitable methods for the implementation of a campaign for prevention-information, addressed to the medical sector, schools and families, and to society as a whole, which is not limited to illustrating the harmful effects of enhancing drugs on health and highlighting their limited effectiveness, but it should also be directed to a better knowledge and critical consideration of their use in

the context of the way of understanding human beings and society.

References

1. Juengst ET. What does Enhancement Mean? In: Parens E, editor. *Enhancing Human Traits: Ethical and Social Implications*. Georgetown, Washington, D.C.: Georgetown University Press; p. 1-28.
2. Farah MJ, Illes J, Cook-Deegan R, Gardner H, Kandel E, King P, et al. *Science and Society: Neurocognitive enhancement: what can we do and what should we do?* *Nature Reviews Neuroscience* Nat Rev Neurosci. 2004;5(5):421-5.
3. Levy N. Changing One's Mind. *The Ethics of Memory Erasure in Eternal Sunshine of the Spotless Mind*. S&F. 2011;5:29-49.
4. Agar N. *Liberal eugenics: in defense of human enhancement*. Malden, MA: Blackwell Pub.; 2004.
5. Bostrom N. Better humans?: the politics of human enhancement and life extension. In: Miller P, Wilsdon J, editors. *Better humans?: the politics of human enhancement and life extension*. London: Demos; 2006. p. 40-50.
6. Savulescu J, Meulen Rter, Kahane G. *Enhancing human capacities*. Chichester, West Sussex, U.K.: Wiley-Blackwell; 2011.
7. Harris J. *Enhancing evolution: the ethical case for making better people*. Princeton, NJ: Princeton University Press; 2007.
8. Kass L. *Beyond therapy: biotechnology and the pursuit of happiness*. Washington, D.C.: President's Council on Bioethics; 2003.
9. Kass LR. *Life, Liberty and the Defense of Dignity: The Challenge for Bioethics*.

- San Francisco: Encounter Books; 2002. (tr. it.). Kass LR. La sfida della bioetica: la vita, la libertà e la difesa della dignità umana. Torino: Lindau; 2007.
10. Fukuyama F. The end of history and the Last Man. New York: Free Press; 2006.
 11. Fukuyama F. Our Posthuman Future: Consequences of the Biotechnology Revolution. London: Farrar Straus & Giroux; 2002. (tr. it.). Fukuyama F. L'uomo oltre l'uomo. Le conseguenze della rivoluzione biotecnologica. Torino: Mondadori; 2002.
 12. Habermas J. Die Zukunft der menschlichen Natur: auf dem Weg zu einer liberalen Eugenik? Frankfurt am Main: Suhrkamp; 2001. (tr. it.). Habermas J. Il futuro della natura umana. I rischi di una genetica liberale. Torino: Einaudi; 2002.
 13. Sandel MJ. The case against perfection: ethics in the age of genetic engineering. Cambridge, MA: Belknap Press of Harvard University Press; 2007. (tr. it.). Sandel MJ. Contro la perfezione: l'etica nell'età dell'ingegneria genetica. Milano: Vita e pensiero; 2008.
 14. Aguti A. La vita in questione: potenziamento o compimento dell'essere umano. Brescia: Editrice La scuola; 2011.
 15. Kampowski S, Moltisanti D. Migliorare l'uomo?: la sfida etica dell'enhancement. Siena: Cantagalli; 2011.
 16. Farah MJ, Haimm C, Sankoorikal G, Chatterjee A. When we enhance cognition with Adderall, do we sacrifice creativity? A preliminary study. Psychopharmacology. 2009;202(1-3):541-7.

Notes

1. An example may be the inclusion among psychiatric disorders of the new syndrome of attention deficit and hyperactivity (ADHD: Attention Deficit Hyperactivity Disorder).