

Could Neuroenhancement be an Ethical Approach in Social Practice?

Antonio Sandu

Professor PhD, Stefan cel Mare University of Suceava, Romania,
13 Universităţii, 720229, Tel.: 0230 216 147;

University of Oradea, Romania
Campus Universitar, Tel.: 0259 408 105;

LUMEN Research Center in Social and Humanistic Sciences, Iasi, Romania,
2 Tepes Voda, Iasi, Tel. 0740151455
antonio1907@yahoo.com

Elena Unguru

PhD Student, University of Oradea, Romania,
Campus Universitar, Tel.: 0259 408 105;

LUMEN Research Center in Social & Humanistic Sciences, Iasi, Romania,
2 Tepes Voda, Iasi, Tel. 0740151455
ely8519@yahoo.com

Abstract

Neuroethics is an interdisciplinary field of research aimed at understanding the consciousness and the mind through the relationship between it and the brain's physical support. Among other things, the ethical perspective refers to the acceptability of the practices used to modify human behavior through interventions on the nervous system. Neuroethics research addresses areas such as neuro-imaging techniques, cognitive enhancement and neuro-pharmacology. We will discuss the limits and risks of the neuro-regeneration procedures given by the development of new possible classes and social categories. The article aims to present a theoretical perspective on the possible implications of neuroethics in the practice of social services. The neuroethical approach facilitates a rethinking of the ethical values in the process of ethical evolution of the technologies. The autonomy, a classic concept in bioethics and the post-Kantian traditional ethics, loses its philosophical consistency since any cognitive or ethical enhancement distorts the expressive autonomy and the authentic nature of the moral agency.

Keywords: Neuroethics, neurosociology, neuroenhancement, social work, supervision,

1. Introduction

The concept of *neuroethics* (Buniak, Darragh & Giordano, 2014) defines two relatively distinct research fields, namely the *ethics research from the perspective of neurosciences*, or even the *neuroscience of ethics*, and the *ethics of neurosciences* (Roskies, 2002). The term *neuroethics* was introduced by William Safire (2002), who defines neuroethics as being the evaluation of what is good or bad in the treatment of nervous system disorders, and also the improvement of cognitive capacities, through either medicine or the emerging medical technologies (Roskies, 2016). Besides, the field of neuroscience has generated a true philosophical emulation with reverberations not only in the ethical field, but also in the neurophilosophical area or in the philosophy of science as well (Churchland, 1989), and even in the domain of neurotheology (Sayadmansour, 2014). Starting from the definitions in the literature, we consider that neuroethics is an interdisciplinary field of research aimed at understanding the consciousness and the mind through the relationship between it and the brain's physical support. Another definition we operate with is that: Neuroethics is a means of understanding consciousness from the perspective of its relation to the nervous system, as physical support of the consciousness. Among other things, the ethical perspective refers to the acceptability of the practices used to modify human behavior through interventions on the nervous system (Reiner, Nagel 2017). The neuroethical approach allows a rethinking of the ethical values in the process of ethical evaluation of the technologies. The article aims to present a theoretical perspective on the possible implications of neuroethics in the practice of social services.

2. Neuroethics

Regarding the human being enhancement, the entire history of the humanity, starting from the discovery of fire, language, writing, up until the digitalization and virtualization of social space, can in fact be considered the history of a process of constant improvement of the human condition through means of technology. Human enhancement, conducted through means of medication or medical technology, is a new step in this continuous process of progress of the humanity. The techno-optimists (Caplan, 2003; Savulescu, 2006; Harris, 2007), considers that the practices of human enhancement are consistent with the historical line of human development, in the sense of increasing the quality of life and life expectancy. These continuous improvements of the human condition may, at some point, lead to the emergence of new posthuman species with cognitive qualities, and far superior capacity of action (Bostrom, 2003). The techno-pessimists warn about the risks of current development of technology, which may lead to the complete disappearance of the human species (Fukuyama, 2002).

For Roskies (2002; 2016), the main topic of neuroethics is the study of the capacities of developing moral behaviors from the perspective of the individuals' neural activity, and connected to it, the ethical nature and the impact on the individuals' moral conduct following the processes of modifying the neural activity through medication or technologies available in neurosciences (Shook & Giordano, 2014). The development of knowledge in the field of brain and nervous system functioning opens a series of ethical challenges referring to the moral admissibility of the alteration of biological structures that represent the substrate of the moral agency, and influences the process of decision-making (Roskies, 2016).

The *neuroethical* perspective, centred on the analysis of the alterations of biological substrate of the ethical decision (Buniak, Darragh & Giordano, 2014) interferes with the traditional ethics that postulates *the moral consciousness* as a fundament of the ethical action. Neuroethics is a challenge for the classical philosophical assumptions referring to the relationship between mind and brain (Shook & Giordano, 2014), of the very existence of a *res cogitans* in Cartesian sense, whose functioning would be less influenced by the biological substratum of cognition. From the perspective of neurosciences, due to the interdependence between the conscious processes and their neural substrate, it was even assumed the possibility of digital emulation of the functioning of nervous system, and implicitly, copying the mental content of individuals with digital substrate. However, we question the understanding of cognitive activities in a computational manner, which raises questions concerning the very claim of *digitalization* of mental processes, and finally of the *consciousness* (Kurzweil, 2000; Koch & Tononi, 2008).

The transfer of self consciousness and personality of an individual in the digital environment would require more than just the simple coding of consciousness' content, since they emerge from the neural activity in a different manner of functioning of current software, including those of deep-learning and artificial intelligence. The classic interpretation of digital immortality is loading the contents of the consciousness and the mental activities into a computer (Martin, 1971). The transfer of cognitive content and the emulation of such processes in the digital environment was developed as a solution for preserving the individual's identity, a pseudo-immortality, possible when the biological support is deteriorated, when it requires a specifically long time to subsist the human individuality, like in the case of interstellar travelling (Prisco, 2012).

The analysis of the neural substrate of human behavior leads to the emergence of new *ethical constructs* (Shook & Giordano, 2014), and the redefinition of some already consecrated in bioethical literature, such as the *autonomy* (Frunza & Sandu, 2017). The decryption of the neural mechanisms of the ethical decision opens the way for the medical understanding of social life (Damian, Rohozneanu, Glodeanu, Tăbăian, 2017) and the transformation of social intervention into social therapeutics, in the medical sense. Behavioral deviance can be regarded as a *pathological condition*, thus opening the way for *moral bio-enhancement* (Specker et al., 2014).

3. Neuroenhancement

Adina Roskies (2016) believes that the ethics of improving cognitive performance is a predominant field of neuroethics. Technooptimists (transhumanists or not) consider human enhancement as a moral duty, insisting on its compulsoriness (Bostrom, 2013, Specker et al., 2014). The technopesimists emphasize the lack of authenticity of moral behavior that is chemically induced or even genetically programmed (Gino, Kouchaki & Galinsky, 2015). A series of discussions are being conducted on the topic of the limitations of therapeutic use of certain substances (retiling) in ADHD (Nagel & Neubauer, 2005), and their use as cognitive enhancement (Halperin & Healey, 2011; Roskies, 2016). The arguments due to which Flanigan (2013) states that young patients should have access to neuroenhancement treatments (Ilieva, & Farah, 2013), even if they are not suffering from ADHD, are: there is not significant difference between ADHD and other forms of cognitive vulnerability (Damian, Bulgaru-Iliescu, Rohozneanu, Glodeanu, Diac, David & Hunea, 2017), creating a therapeutical network which would use neuroenhancement therapies allows for a better use in the benefit of all types of patients (Lakhan & Kirchgessner, 2012). Forlini, et. al (2015) considers that within the normative disciplines, but also of the empirical researches, a particular importance is offered to the ethical aspects of nonmedical use of neurostimulating substances. The analysis on a group of students from German universities shows that neuroenhancement is a well-known, but not widely used practice. The main reason respondents used neurodegenerative therapies was increasing cognitive competitiveness, especially during the exam periods. In the case of attention-deficit-hyperactivity therapy (ADHD), drug treatment can lead to changes in self-perception and self-expression. Adolescents undergoing treatment with methylphenidate for ADHD interviewed by Fleishmann and Kaliski (2017) show that a certain level of autonomy is possible through self-management, as they are able to decide when to use medication to improve cognitive and relational capabilities, for example in pre-exam periods, and when to lower the dose to experience an increased level of creativity and spontaneity.

Self-care leads to a particular sense of autonomy, precisely because exercising control over affective cognitive mood and behavior *makes them more meaningful and diverse*. Exercising control over their own lives opens for them a particular level of integration into the social environment, and a particular sense of the idea of autonomy. Optimism regarding the results of neuro-enhancing procedures, especially the pharmacological ones, is questioned by clinical results that the discovery of new substances that increase the intelligence of healthy people is much more difficult than finding new treatments for the various mental disorders (Schleim & Quednow, 2018).

The research undertaken since 1030 up to nowadays, although it demonstrates the partial success of psychopharmacological neuroenhancement, it is extremely limited in the case of clinically healthy people, and deficitary in patients with cognitive psychiatric disorders, which is why, in the opinion of the cited authors, *pharmacological optimism hypothesis and neuroenhance prevalence hypotheses must be rejected* (Schleim & Quednow, 2018).

4. From neuroenhancement to Homo Sapiens +

A series of philosophers, among whom one of the most important is Julian Savulescu (2001, 2006) considers that human enhancement, including that through genetic engineering, is a *true release of the species from its biological limitations*. Natural evolution is slow, while technological and voluntary adaptive processes are much faster, leading to a more efficient human species for their own evolutionary goals, able to adapt nature to the needs of humanity and able to improve their own biological condition (Stock, 2008).

Julian Savulescu (2001) argues that the new historical conditions justify the modification of the biological cycles functioning and this is just simply adaptation, namely an extension of natural selection through conscious intervention upon biological determinants (Savulescu & Sandberg, 2008) of the human existence. Savulescu (2006) is placed on a position that supports ethical transhumanist project, arguing in favor of improving human species (human enhancement), both individually and as a species (Sandu, 2016). Savulescu (2006) conducts a critical analysis from the point of view of the ethical technologies that will improve the human condition (Enhance Human

Beings). The author consider that it is morally wrong to opt for the non-improving of human being. This obligation derives from the duty to give children the best chance to have a life as good (Sandu, 2016). Savulescu (2001) considers: possible injury to the child that shall be subjected to artificial life of determining causes of parental choice, inequality artificially generated that will put the child at risk from discrimination, making them vulnerable to a new type of oppression: soft slavery (Terec-Vlad & Terec-Vlad, 2014), through the induced proneness of being obedient.

Discrimination against naturally born children from those that are selected, may be a cause of social inequality (Sandu, 2016). Another objection takes into account the issue of the dignity of the human species, which is subjective to an ameliorative process (Winner, 2005), in an analogous way of the process of creating a new breed of cattle (Sandu, 2016). Neuroenhancement is considered by Savulescu and Sandberg (2008) to be a possible intervention associated with couple's therapy. Biological intervention on chemical and neurological responses that manages affective processes can alter the dynamics of the couple's relationship, with costs in terms of the *authenticity* of feelings between members of the couple.

Transhumanism, according to Nick Bostrom (2003) doesn't share the technological optimism reffering to an unlimited future progress, but rather shows that with the huge beneficial potential of those emerging technologies, there comes huge risks on their distructive potential (Schussler, 2017), which can reach up to the extinction of the human species (Sandu, 2015; Croitor, 2017).

The opportunities of improvement of the human condition aim at eradicating diseases and eliminating the need for suffering, improving the cognitive, emotional and physical human capacities. This improvement of the human condition is not limited to simple technological artefacts, but also considers the economic, social and cultural development of the institutional design, the psychological and technical abilities.

5. Autonomy from neuroethics' perspective

Autonomy as authenticity is the capacity of the individual to be consistent with his own decisions, expressing his true will, a certain consistency in making decisions being observed. Autonomy as authenticity (Varga & Guignon, 2017) takes two major forms:

- emphasizing on the existence of an authentic and permanent nucleus of personality, targeting the idea of integrity as a manifestation of the authentic human being (Sandu, 2013).
- emphasizing on the innovatice capacity of the moral agent (Sandu, 2013; 2017), represents the capacity of living in accordance with who we are, according to our own system of values and beliefs. The expressive authenticity represents autonomy put into action, shifting from the level of intention to that of action (Sandu, 2015).

Bublitz and Markel (2009) consider that the autonomy exclusively depends on the values of the highest order that the individual identifies with (Sandu, 2013). The decisions of the individual alienated by his own values can be considered non-autonomous decisions. But in the situation of behavioral changes, either following a therapeutical action, or the impact of an event, the actions can be consistent with the new system of values, the individual becoming autonomous based on this new system of values, although remaining inauthentic towards it. Therapies or technologies of neuroenhancements submine the values and virtues of the personality. In that case, it is ineffective to invoke the autonomy and responsibility of the person, since the behavior no longer derives from his own system of values. In the situation of persons that voluntarily undergo certain treatments of neurological enhancements (Carter, 2017), the question arises whether there is still an autonomous behavior, or the subjects no longer act autonomously (Sandu, 2013, 2016).

The manifestations disorders of *expressive autonomy* can be interpreted in the sense of losing the identity of the individual, the subject being in difficulty to feel the *author of his or her own life*, being affected by selfhood by interrupting the narrative identity formation and revision (Goddard, 2017). The use of neuroenhancement as a *biological intervention* in situations of *social pathology* is susceptible to embezzlement of the expressive autonomy of the subject. In situations in which the brain is directly medically influenced (Hanganu et al., 2017) by medicine or by surgery,

the agent is no longer himself since he suffered from a significant change of state over his own history. In view of analyzing the ethical acceptability of human enhancement technologies, we must take into account the perspectives that the autonomous decisions of the individuals are not entirely influenced by the biological factors / which can be modified in the process of moral enhancement, but also by economic, social, axiological factors, which make it possible to overcome the genetic conditions imposed in the enhancement process. The real reflection which leads to the ethical decision is only partially overlapped to the ideal of practical reason. Many authentic decisions, consistent with oneself, are taken without an explicit reflection upon the moral content of the decision. The deviant anticipatory socialization can manage the illegitimate access to resources through a process of social construction of an „alternative moral value”. The social acceptability and control are determined in order to manage the relational autonomy. The individual is autonomous, meaning he controls his own life and decisions within the limits of the social constructs he has internalized.

6. A neuroethic perspective on the welfare practices that could target the decrease in cognitive or axiological vulnerabilities

Ingmar Persson and Julian Savulescu (2012) suggest the necessity for „moral enhancement” through means of certain substances that reduce anxiety, the answer to frustration, etc. It has obviously raised a question on the reality of the autonomy in the context that the individual behavior is dependent of personality traits that do not involve the will (Sandu, 2015). Ingesting certain substances can generate a decrease of aggressivity, and implicitly of the tendency to hurt the others (Sorgner, 2014; Croitor, 2017). Douglas (2014) supports the thesis according to which the interventions of altering the behavior of people who have committed crimes are justified, following the subject’s agreement to undergo the procedures, may underlie its parole release.

The author shows that establishing an obligation to follow biomoralenhancement interventions can not be considered more intrusive than incarceration in the person's psychological life and intimacy. The right to body integrity can not be countered in Douglas's view of the state's rule of exercising coercion in a non-consensual manner.

Craig Jaed (2016) criticises the perspective proposed by Douglas (2014), showing that the Direct Brain Interventions (DBIs) infringes the right to the individual’s psychic integrity, and its exercise of autonomous human agency. The so-called moral enhancement represents, in fact, the subject’s incapacity to commit antisocial actions, not an actual development of its moral conscience that would determine him to refrain from committing further deeds. Even if the results can be desirable for the community, for example by diminishing the risk of violence associated with maintaining certain individuals with tendency towards violence (Damian, Rohozneanu, Glodeanu & Tabian, 2017) out of jail, the worldwide control over violence (Ioan, Damian, Scripcaru, Neagu & Chirila, 2015) through procedures that target the neuroenhancement deprives the society of the very energy given by the individuals’ desire to self-perfect, and the competitive attitude they can manifest.

The attempts to achieve Moral enhancement are conducted from the perspective of developing empathetic capacities of the individuals, increasing honesty and diminishing aggressive tendencies. Ahlskog (2017) considers that there is a lack of a clear model of understanding the complexity of the moral capabilities of individuals and the interconnection between them. The complexity of moral behavior limits the possibility of effective intervention through neurotherapies. The author points out that moral enhancement should be achieved by targeting therapy to modifying motivational drivers of individual’s behavior by diminishing selfish motivation, and not by trying to increase prosocial attitudes (Ahlskog, 2017).

7. Critics of Moral Enhancement

The arguments against moral enhancement are related to the violation of autonomy, but especially the diminishing of the individuals’ capacity to face certain situations in which aggressiveness is legitimate, justified and necessary (Croitor, 2017). Even within the framework of

voluntary moral enhancement as an alternative to imprisonment, although partially justified, we can raise objections regarding the alteration of the individual's identity (Sorgner, 2015).

Fukuyama (2004a) shows that the central claim of transhumanism is that one day, the use of biotechnology will make the human individuals stronger, more intelligent, less willing to be violent, enjoying a long, healthy and prosper life. The alteration of any characteristic of the human being draws to itself, according to Fukuyama (2004b), a complex, interconnected alteration of the human nature, where unpredictable threats can come from (Croitor, 2017).

8. Conclusions

Moral neuroenhancement processes can, in our opinion, be useful to a certain point in order to remove the various cognitive vulnerabilities of individuals. Excessive use of enhancement, medicine, or the use of medical technology, raises the ethical issue of acceptability to giving up the authenticity of the person, and ultimately, to his autonomy in favor of the expansion of sociability. The neuroethical approach of the social services is based precisely on the idea of supervision of ethics of any processes of moral enhancement. The neuroethical approach allows a rethinking of the ethical values in the process of ethical evolution of the technologies. The autonomy, a classic concept in bioethics and the post-Kantian traditional ethics loses its philosophical consistency since any cognitive or ethical enhancement distorts the expressive autonomy and the authentic nature of the moral agency.

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Antonio Stefan SANDU (b. July 19, 1973) currently works as Professor PhD at the “Stefan cel Mare” University of Suceava, as PhD Advisor at the Doctoral School of Sociology from University from Oradea, and as a Senior Researcher at the LUMEN Research Centre in Social & Humanistic Sciences in Iași (Romania). He was appointed Postdoctoral Fellow at the Center for Ethics and Health Policy of “Gr. T. Popa” University, Iasi. He has a BA in Philosophy, another one in Social Work, and a third BA in law. The author also has a MA in Probation and Social Reintegration from “Al. I. Cuza” University. He has a PhD in Philosophy from the “Al. I. Cuza” University, Iași (Romania), with a thesis entitled „Oriental Philosophy and Modern Physics. A Humanistic Vision on Universe”. His main areas of interest include ethics, bioethics, social work and social philosophy. He has authored more than 20 books in Social Work, Philosophy, and Applied Ethics, with more than 100 articles in scientific peer-reviewed journals. The original contributions of the author’s scientific activities start from the social construction of reality, and social constructionism seen from a semiological perspective. He analyses the social construction of reality by developing his very own version of social constructionism at the intersection between the constructionist paradigm and the theory of communicative action.



Elena UNGURU (b. May 19, 1985) is a PhD Candidate at the Doctoral School of Sociology, University from Oradea. Legal Adviser for LUMEN Association, in Iasi. She graduated from MA studies in Supervision and Family Planning, at the Faculty of Philosophy and Social Political Sciences from Al. I. Cuza University in Iasi. She has a BA in Law and Social Work. Fields of interest: sociology, law, social sciences, public relations and communication.