

The Ethics of Human Enhancement: An Analysis

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ABSTRACT

Recent advances in life sciences such as medicine, biotechnology, genetics, biology, and neurosciences raise serious moral concerns. Among the key issues is the one that concerns our genetic structure. Questions are continually emerging, regarding our genetic basis and its manipulation leading eventually to the enhancement of the human being through science. That said, transhumanists allege that for humanity to meet the demands of modern life, we have a moral duty to enhance ourselves and extend our lifespan, yet surpass the human condition as we nowadays appreciate. This paper presents ideas and evaluates transhumanism's propositions concerning philosophical views, like that of Michael Sandel, professor of political philosophy at Harvard University, and that of political economist Francis Fukuyama. The paper concludes that, although we should exploit the redemptive nature of technology to improve, intervention in our natural capacities, as it is being proposed, seems relatively unsound.

Introduction

Technology with the pinnacle of artificial intelligence (AI) provides a practical means for humans to evolve in a multitude of forms that we cannot yet define. The use of term "enhancement" refers to the deliberate intervention aimed at improving a characteristic, selecting another desirable one, or creating a new trait in a human and encompasses biomedical and non-biomedical interventions. This paper discusses two aspects of human enhancement: moral enhancement and the pursuit of immortality.

According to the two bioethicists Julian Savulescu and Ingmar Persson, "Moral enhancement means the moral person to be distinguished from the predispositions that contribute, on the one hand, to the formation of correct judgments about what is right to do and, on the other hand, to the harmonization of his actions with these judgments" (Persson & Savulescu, 2008). In short, proponents of moral enhancement believe that humanity is bound by emotions, passions, and other physical urges, and to meet the ethical challenges of the era, moral enhancement is a viable solution. By moral enhancement, we generally mean the reduction of aggression and the elimination of violent behavior, as well as the promotion of empathy and the capacity for love. Our aggressive tendencies are rooted in biology and can be refined biotechnologically. This way, we can remain consistent with our ethical beliefs without deviating due to a lack of discipline and self-restraint. Pharmaceutical drugs can indeed influence our natural predispositions and affect our behavior. Understanding the effects of neurotransmitters, such as dopamine and serotonin, on mental disposition has led to the development of a plethora of drugs that allow for behavior control. Conversely, morality (in terms of what is considered right and wrong) is not determined by human biology. Therefore, to critically evaluate interventions in human nature and psychological capabilities, a framework of evaluation and thus reasoning is needed. Moral enhancement is not reducible to biology but refers to values, many of which vary from era to era and from place to place. Enhancements could perhaps be considered moral, provided they are accompanied by a rational explanation of the reasons for seeking such enhancement. Here, one can argue that there is no timeless and definitive moral code, it is impossible to speak of the morality of human enhancement since there are no commonly accepted criteria by which to judge

morality. However, we can argue that morality is a consensual contract with which people defend their interests by choosing to limit themselves for mutual benefit.

Another central claim of transhumanists is the pursuit of life extension through the suspension or even reversal of the aging process, ultimately aiming for immortality. The pursuit of immortality is of paramount importance to transhumanism because enhancements remain temporary as long as humans remain mortal. Being immortal, humans would be able to give meaning to their existence. Transhumanists believe that aging is a curable disease that can be treated, freeing humans from mortality.

Analysis of the Argument for Transhumanism

Transhumanism Explained

Transhumanism does not adhere to fixed beliefs; what distinguishes it is not just its enthusiasm for technology, but the range of issues it explores. These include subject matter as far-reaching as the future of intelligent life and much more narrow questions about present-day scientific, technological or social developments. In addressing these problems, transhumanists aim to take a fact-driven, scientific, problem-solving approach. They often embody “dynamic optimism”, a mindset that desirable results can generally be accomplished, but only through hard effort and smart choices. By extension, they challenge perceived impossibilities and critically reassess all principles, including the necessity of death, the limitations of Earth’s resources, and even the validity of transhumanism itself. Nick Bostrom writes in “Human Enhancements: A Transhumanist Perspective” that transhumanism is a “loosely defined movement” advocating for an interdisciplinary approach to understanding and evaluating opportunities to enhance the human condition and organism through technological advancements (Bostrom, 2003). It focuses on both current technologies, such as genetic engineering and information technology, and future ones like molecular nanotechnology and artificial intelligence. Potential enhancements include extending human health spans, eradicating diseases, eliminating unnecessary suffering, and augmenting intellectual, physical, and emotional capacities. Transhumanists see human nature as a work-in-progress, a preliminary stage that can be reshaped in beneficial ways. They believe that humanity has not reached the final stage of evolution. Just as we use rational means to improve the human condition and the external world, we can also use such means to improve ourselves, the human organism. In doing so, we are not limited to traditional humanistic methods, such as education and cultural development. We can use technological means that will eventually enable us to move beyond what some would think of as “human”. To a transhumanist, progress occurs when more people become more able to shape themselves, their lives, and the ways they relate to others, in accordance with their own deepest values. Transhumanists place a high value on autonomy: the ability and right of individuals to plan and choose their own lives; they seek to create a world in which autonomous individuals may choose to remain unenhanced or choose to be enhanced and in which these choices will be respected. They hope that by responsible use of science, technology, and other rational means we shall eventually manage to become *post-human* beings with vastly greater capacities than present human beings have.

Bostrom explains the term post-human as the human being having at least one post-human capacity, which is a capacity greatly exceeding the maximum attainable by any current human being without recourse to new technological means. Such capacities revolve around health span, cognition, and emotion. As Bostrom sees it, we ought to pursue values that are important to us, and their will lead to a state of beneficence widely known as posthumanity, accommodating a variety of scenarios, but also open to the unimaginable. Bostrom highlights the importance of promoting enhancements that have “positive externalities”: traits that derive into some social good, rather than a purely individual good. From this metaphysical framework that transhumanists create, their answer to “Why should we become post-human?” is clear: because post-humanity will be in more beneficial state, better than present humanity (Vaccari, 2019). This is the Posthuman Beneficence Argument (PBA), which can be broken down into two wider transhumanist claims for the desirability of post humanity: a model of

deliberate rationality, requiring reasons to endorse such claims; and the reasons themselves. The model of deliberate rationality involves a reasoned and reflective process by which individuals endorse the pursuit of human enhancement. This model consists of two key assumptions. Firstly, the “Continuity of Values” ensures that the posthuman state aligns with the values and aspirations we currently hold dear. The idea is that if we can imagine posthuman capacities that fulfill our present values more comprehensively, then pursuing these capacities is rationally justified. Secondly, there must be “Reflective Endorsement” which requires human beings to deliberate about the desirability of enhancements. It means that they should carefully consider and voluntarily agree for the pursuit of enhancements based on their current values and rational deliberation. Next, we should consider the second claim of the Post Beneficence Argument: the reasons for pursuing post-humanity. Such reasons are quite straightforward and involve improvements in longevity, emotional well-being, moral behavior, and intelligence. The pursuit of knowledge, creativity, and happiness may be fully realized with enhanced cognitive abilities and emotional stability.

Moral Enhancement

One of the most significant figures in the history of philosophical thought was Aristotle, who formulated a theory of moral improvement. He considered the moral elevation of its citizens to be a necessary condition for the well-being of a city. Living in an era of material prosperity where "having" is identified with "being" and moral values are increasingly deteriorating, one could hardly examine anything other than Aristotelian eudaimonia as the product of virtues. According to Aristotle, the subject of ethics, just like the nature of man in the world, is unstable and uncertain. In his exploration of moral phenomena, he argues that we do not know the causal relationship of things but the data of raw reality offered by life. Thus, the way one can understand ethical issues is inductive, through experience and practice in life, relying on the opinions of authoritative philosophers or the prevailing perceptions of society. Additionally, in the *Nicomachean Ethics*, one of his three treatises, he formulates the conditions under which someone possesses moral virtues (e.g., justice, temperance, courage). He claims that someone who does something just and temperate is just and virtuous when they do it knowingly, guided by a stable disposition (Aristotle, *Nicomachean Ethics*, Book II). For example, if someone takes a drug that affects their behavior and then becomes particularly cooperative without their knowledge, we cannot speak of moral enhancement because their cooperative behaviour did not occur by their own choice, nor with their knowledge and disposition. Conversely, if someone takes a medication, of their desire, that affects their behavior by reducing their aggressiveness, then they meet the conditions of Aristotelian theory, and their action can be characterized as morally virtuous, and they as virtuous.

Life Extension

Professor of Evolutionary Biology at the University of California, Michael R. Rose, believes that the complexity of human physiology and therefore the difficulty in finding an anti-aging therapy can be addressed by using artificial intelligence to analyze the genome with the aim of developing new drugs (Panisch & Sorgen, 2014). However, based on historical experience, the increase in life expectancy is not due so much to technology but to public health policies. Continuing, Aubrey de Grey, a member of the American Aging Society, considers aging, as the biological, cognitive, and mental decline of the organism, not due to a genetic "clock" but reflecting accumulated damage and faults at the cellular level that are not repaired due to lack of organism resources. Therefore, he aims to treat it. Thus, according to this assessment, we can start to suspend aging despite ignoring many of the processes that cause it (de Grey and Rose, 2007). De Grey's anti-aging strategies include a plethora of cell-level therapies within the framework of a war against aging. The question that arises at this point is simple: Is it worth extending our lifespan, and if so, what are the consequences? In the scientific community, anti-aging strategies are considered, at best, extremely controversial and, at worst, pseudo-scientific. However,

it should be noted that a special committee at the Massachusetts Institute of Technology, taking into account the criticism of de Grey's theory, could neither confirm nor refute his life extension strategies. This conclusion was published in the MIT Technology Review (Pontin, 2009). The harmful effects are found in the need for dangerous clinical trials for the development of such methods. In this case, the participation of healthy middle-aged individuals is necessary. But how will they be convinced to participate, risking their normal life expectancy or even their lives? The motive will be financial reward. Financial rewards as a driving force will intensify social inequalities as the privileged class will indirectly force the weak to participate in trials exploiting their economic need. For this reason, research into anti-aging therapies is seen as antideontological. However, these objections apply more broadly to experiments for human enhancement.

The fears and concerns about extending life take on other dimensions. We must first imagine our lives without a time limit. Is it possible to live for centuries without remembering our past selves? Will our future selves resemble our past selves? This also presupposes that our habits, preferences, and values remain unchanged, something that is likely impossible after a certain period. Therefore, the price of enhancement may be not enough to experience ourselves anymore. Here, the issue of self-loss arises. If this happens, we will not experience just a different life but an unknown one. Everything adjusts to the dimensions imposed by the time horizon of a generation. Being immortal, we will not need to wonder how we will live since we will have the opportunity to fulfill any desire at any time in our lives. Our goals and pursuits will not be limited to a timeframe, but we will have complete control over our actions. On the other hand, an extended life may not be a better version of the present but may involve abandoning beloved habits, activities, and pleasures (Tassis, 2021). For life to be successful, a person should not have exhausted the opportunities provided by their environment so that they can continue to explore and exploit them. The criteria for happiness are difficult to define but we could note that happiness involves enjoying our daily lives. Given what has been mentioned, we must point out that the allocation of resources, and new opportunities in our world is limited, as we have not been programmed to live longer than predetermined to adjust our needs accordingly. People shape their goals in such a way that they are achievable in their lifespan (we are not referring to issues that concern humanity and remain crucial to the scientific community). We conclude that happiness and success also have some limits. In the above reasoning, we assume that the individual has basic education and fundamental political rights, is not socially excluded, and is not a victim of discrimination. Also, we are not referring to someone who is indifferent to a content and successful life and prefers well-being. Our main question, whether radical life extension is beneficial, does not seem as clear-cut as a prudent extension. In conclusion, a maxim should be impressed upon us when contemplating the extension of the human condition: "We add years to our lives, but not life to our years (11)."

Discussion

Accessibility

The term enhancement is extremely ambiguous and susceptible to many interpretations of both positive and negative implications. At the same time, it is accompanied by a series of practical issues. Such as whether these enhancement technologies will be economically accessible to the general public. Could the inability of certain social groups to access these technologies pave the way for new forms of discrimination reminiscent of the old ones based on ideas of genetic superiority/inferiority? This concern is pervasive in the literature, and it is not unsupported. We could say that history has taught us that we cannot shake off the human tendency to dominate over someone inferior or at least whom we consider inferior based on evidence. Racist perceptions and social divisions have never ceased to plague societies; the fear of an increase in such behaviours and manifestations reappears and evolves parallel to the advancement of scientific data. Many dystopian scenarios are mentioned regarding the transformation of societies for the worse, changes in the human species, and human evolution. The concern presented here has to do with how some will be positively affected by scientific developments and

how others will remain in extremely disadvantaged positions (Chasapakou, Proikaki, Bobola, & Lambrou, 2018).

On Nature and Existence

Francis Fukuyama, political economist, presents in his book "Our Posthuman Future" a conservative critique of human enhancement, rejecting it as unethical and calling for its prohibition. He warns that human enhancement using genetic engineering will alter human nature, thereby risking the fundamental values of liberal democracy and inaugurating a post-human stage in history. Fukuyama defines human nature as "the set of behaviors and characteristics that are typical of the human species and are due to genetic rather than cultural factors (Fukuyama, 2002)." Violence indeed constitutes part of human nature and is as natural as its control through social rules and institutions. Furthermore, human nature does not dictate a uniform list of rights; it is flexible and complex as it interacts with various natural and technological environments. Fukuyama proposes recognizing human nature as a source of values that ensures the continuity of the human experience. We do not want to disrupt this continuity or its unity and therefore the rights based on it. While individuals may differ and vary across cultures, we share a common humanity that allows every person to communicate and form an ethical relationship with every other person on the planet. Thanks to this, we possess moral sense, social skills, and reflection. Fukuyama defines humanity as "a fundamental quality that has always grounded the sense of who we are and where we are heading despite changes in the human condition throughout history."

Furthermore, Fukuyama speaks of the state's responsibility to ensure that the cost of enhancement is not too high and guarantees its safety so that citizens can equally utilize it. Otherwise, the first victim of enhancement will be equality. This implies that genetic inequality will become the burning political issue of the 21st century. Fukuyama seeks to instill humility regarding human nature and respect for its fundamental characteristics. This, combined with culture, creates humans, endowing them with the ability to internalize values, acquire virtues, and be shaped by institutions. Francis Fukuyama attacks human enhancement, seeking to ground human rights in nature and protect human dignity (Fukuyama 2012).

Furthermore, Michael Sandel, professor of political philosophy at Harvard University, also presents a conservative critique of the ethics of enhancement. Once again, the ethical discomfort towards it stems from the threat it poses to humanity. Secondly, the difficulty in expressing this discomfort arises from the fact that it remains unseen how exactly humanity is endangered. Sandel argues that it diminishes the freedom to act, which is a central characteristic of the human condition. He believes that individual behavior would depend less on effort, patience, and intelligence and more on enhancement. He also suggests that human abilities and powers are gifts, and human achievements are products of these abilities. More specifically, he states: "To recognize the giftedness of life is to recognize that our talents and powers are not wholly our own doing, nor even fully ours, despite the efforts we expend to develop them". He acknowledges enhancement as the pursuit of perfection through mastery over nature. Conversely, self-limitation is an attitude of gratitude, stemming from respect for the mystery of birth. Additionally, enhancement "fails to appreciate gifts and loses the part of the freedom that lies in an ongoing negotiation with the given"(Sandel, 2017). According to Sandel, the disregard for human abilities as gifts and the pursuit of perfection have detrimental consequences on solidarity and responsibility. He expands the boundaries of responsibility as the role of luck in how we behave is eliminated, and tolerance for mistakes in activities diminishes, as we possess predetermined abilities that make mistakes difficult. The issue for Sandel is not whether enhancement as a desire for mastery constitutes an ethical failing but the way of life it shapes. He argues that attempting to modify ourselves rather than change our world weakens "our orientation to the world we inhabit and the kind of freedom we aim to secure." Sandel brings to the forefront the issue of humanity, namely what makes life worth living. In his argumentation, he insists on the sanctity of nature, emphasizing that it is not simply an object subject to our desires (Sandel, 2017). Examining the perspectives of

Fukuyama and Sandel, we conclude that human imperfections are not inherently negative elements but constitute a source of meaning, shaping human experience and identity.

The transhumanists believe that the sense of solidarity, as well as the sense of justice, have biological roots and developed in humans as necessary abilities for life in small communities through education and socialization. However, today, people, as inhabitants of megacities, are inadequately biologically prepared to meet the ethical challenges of modern life. There are still people who commit crimes, are racists, and sexists, expressing aggressive intentions. The only solution to this situation is the moral improvement of humans so that they can respond to the ethical challenges of contemporary life. Also, for humans to defend their primacy against artificial intelligence, to accept the inevitability of death deeply rooted in human thought, and thus to self-actualize, they have to prolong their lives. Examining aspects of transhumanism and opposing views, we conclude that it underestimates the complexity of organisms, their nature, and the rights based on it. Indeed, a central characteristic of human nature is self-improvement but not the only one. Furthermore, it does not concern itself with the history and humanity associated with mortality but examines the level of technical advancement with the culmination of artificial intelligence. It overlooks the major threat to itself and its uniqueness aiming at homogenization. Finally, it seeks to eliminate from human condition aggressiveness, pain, and mortality, dehumanizing the human species.

No one disputes that technology is simultaneously capable and incapable of everything, and its mediation can give a new flow to the sequence of things. Humans have so far led it, but gradually they are subject to its judgment and magnanimity. Balances, therefore, change, and thus we often move away from the human center. Machines are gradually creating a post-human techno-reality that disrupts normalcy as humans have defined it. At the same time, values and norms are determined or influenced by normalcy, and when these are shaped by Machines, normalcy is not left unaffected. It is an irregular, unpredictable, and unusual reality that emerges through technology. These may seem distant, however, its evolution expands daily the scope of its applications, and only through alignment could the new reality reconcile with normalcy. At the core, the challenge of aligning technology with our values arises from the fact that algorithms do not interpret their operation or understand the meaning of the message. This results in them not always acting in line with our ethical, political, and social values. Furthermore, they do not possess, nor can they acquire, the sense, compassion, and wisdom that characterize human nature in decision-making.

Therefore, our first concern should be to firmly establish humanity within humans so that it does not sink within their constructions and from the wonders of their constructions. Humans should possess spirit, sensitivity, and virtue, values that refer us to the critical thinking that should be cultivated within our Education. Without a doubt, technological progress is a significant issue; however, its importance and imperative character should not stifle our reservations. Technology with its brilliant achievements has definitively entered our lives and has opened up horizons that will allow human activity to evolve indefinitely. However, this does not mean that humans can surrender and submit without resistance to it.

Conclusion

To conclude, it seems that the progress made in genetic engineering constitutes both a promise and a dilemma, on the one hand, it promises the treatment of diseases, while on the other hand, it allows interventions in humans. In this context, the moral enhancement of people emerges as necessary for the prevalence of order. "Pain, effort, aggressiveness, and other discomforts that we seek to limit, cannot simply be erased from humans without changing a series of different things that shape the human species. Transhumanism does not seem to adequately support the view that the desire for self-improvement is a central characteristic of human nature, presenting the enhancement of humans as the destiny of history. Precisely because its arguments are exclusively anthropocen-

tric, it underestimates the political and social consequences, such as widening inequalities and establishing un-free regimes. Even the most moderate approaches to enhancement are not convincing, as they deny the continuity of humanity in its present form and focus on the imperfections of humans that for others are gifts of imperfection.

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