



Human Enhancement: A Philosophical Defense of Limits?



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Abstract

The biotechnological advances obtained in the last decades have configured a particular scenario about the limits of what we can do with ourselves, especially by revealing that the human enhancement debate still is epistemologically confused and ethically naive. As we intend to discuss, that happens for two reasons: the first one is associated with the moral evaluation of enhancement concepts, in other words, whether or not we would be entitled to promote substantial changes that jeopardize the conservation of our own way of life; the second reason, intrinsically attached to the first one, is to neglect the evolutionary history of human beings and to claim, therefore, that human enhancement should be carefully evaluated because we would not be able to foresee the possible disastrous risks in our future. It is right into these arguments that the debate between bioconservatives and transhumanists becomes epistemologically confused and ethically weak.

Keywords: Human enhancement; Biotechnologies; Cognition; Ethics; Capabilities

Introduction

Nicholas Agar, in *Truly Human Enhancement: A Philosophical Defense of Limits*, endorses moderate enhancement, i.e., the enhancement of significant attributes and abilities to levels close to what is currently possible for humans and, therefore, rejects what he calls radical enhancement - the attributes and abilities enhancement that far exceed what would currently be possible for humans. This statement, on the other hand, is supporting the idea that the increasingly strong convergence of transformative technologies would be increasing our cognitive powers and extending our life expectancy to undesirable levels because they increase the degree of some of our attributes. Thus, according to Agar, we should be capable to distinguish between moderate and radical degrees of human enhancement.

It is not new that a variety of transformative technologies promise human enhancements that are much more powerful than those provided by any pill, injection, or dietary supplement available in the early years of the 21st century. The fact is that speaking in moderate and radical degrees, as Agar intends to in his work, is to implicitly assume the existence of a normative ethical boundary capable of establishing the difference between the desirable and the undesirable in the various degrees of human enhancement. So, on the one hand, it is not enough to affirm that there is a difference of degree between the use of

smart drugs or nootropics, responsible for increasing our brain's neurotransmitters as dopamine, norepinephrine, and serotonin etc., and, on the other hand, and in the advances that genomics is doing by discovering genes that influence intelligence, longevity, and resistance to certain diseases. Agar's statement, then, as several other bioconservatives, ignores a normative confrontation and prefers to believe in the existence of a truly human nature that should be protected and preserved. Hence, Agar [1,2] and the bioconservatives, in general, commit the logical fallacy of non sequitur, which consists in confusing sufficient condition with necessary condition. While the premises themselves are true - the concept of radical enhancement improves our human capabilities and abilities to levels that far exceed what is currently possible to human beings - it does not follow from this the true conclusion that radical human enhancement cannot be desirable.

The even more serious problem of human enhancement is that, from the logical fallacy of non sequitur, bioconservatives endorse that we would not be legitimated, therefore, to promote substantial changes that put conservation of our "human way of life" at risk and, thus, we should be separate the improvements that assume a merely therapeutic condition of those unnecessary or unimportant transformative changes [3-5]. That is why, for example, arguing that radical enhancement should be avoided because it threatens our underlying autobiographical memories

and our perceptions of ourselves as beings that persist over time, as suggested by Agar [1], is ignoring that one possible distinction between therapy and enhancement would only makes sense if we were capable to point out the normal use or otherwise of our abilities. Therefore, it is reasonable to state that speaking about preservation or restoration of our normal biological functions could serve as a focal point to promote the equality of opportunities, however, we should speak about the same discussion enhancing people with cognitive disabilities in order to promote their 'normal' participation.

Discussion

One way or another, the distinction between therapy and enhancement comes up against the biotechnological meaning that seems to be associated with the use and application of terms. For example, the Bajau people, that lives in the Southeast Asia in the Philippine, Malaysia and Indonesia seas, is frequently referred as sea nomads or sea gypsies. Its existence is entirely sea dependent, where they travel in domestic boats for more than 1,000 years. So, their marine hunter-gatherers existence depends on the food that they collect through free diving, being known for their extraordinary diving capacity to depths greater than 70 meters with nothing but a set of weights and a pair of wooden glasses. The Bajau spend 60% of their daily working time under water, where the lifestyle bases itself in many cultural traces and technical innovations and, as described more recently by Melissa A. Llarido and her colleagues [6], in physiological adaptations to diving and hypoxia tolerance. Thereby, the study showed a genetic relationship between the spleen size and the diving ability, once the ultrasound measures in two plans to calculate the spleen volume indicated a significant difference when we compare Bajau divers with Bajau no divers ($p=0,2663$). Then, would we be facing a type of permissive and natural human enhancement as, for example, Agar [1] describes as she states about the tension between "enhancement" and "survival"? Or, still, could it be that the conceptions of naturalness would be sufficiently capable of providing resources to establish boundaries to human enhancement and avoid genetic, biomedical, or pharmaceutical interventions without therapeutical purposes?

Therefore, if on the one hand, the debate between moderate and radical enhancement degrees seems to be epistemologically confusing, on the other hand, it would be naïve to disagree with Agar's argument, especially in his book *The Sceptical Optimist*, that the variety of technological advances and the acceleration of their techniques are really interested in making us "better". Agar prefers to call this idea of technological progress "radical optimism", once behind it there is an expectation that by accelerating it, we will increasingly have a place of magnitude and problem solving. The history of technological development, or technological progress, has expanded the agenda of poverty, warlike conflicts, nature's destruction, and has put the human species at risk of extinction in a near future. This clearly show us that the debate about the limits

of enhancement – human or non-human – cannot be restricted or even excludes the paradoxes of technological progress. The technological activity, thereby, is not an impartial, neutral, and morally relevant movement that would be at service to human enhancement, promoting, among other things, the ideal of social cooperation and general human well-being [7].

However, it is not enough to assume that technological progress may pose a threat or risk and, then, should necessarily be excluded from the debate agenda. At the same time, this does not mean that it is possible to build an ideal type of science capable of detaching itself from such questions and, consequently, producing a set of results exempt from moral evaluation. Therefore, attacking human enhancement from the technological premise only inflates the problem and does not eliminate the paradox of progress in all its senses [8]. So, the second epistemologically confusing and ethically weak reason that has revolved around human enhancement is to neglect the evolutionary history of human beings and to focus only on technological progress and its possible effects on our future.

The ubiquity of the argument above can be visualized when we consider the increase in human life expectancy over the last five thousand years. It has practically duplicated and, probably, it will continue to increase. In the last decades, however, life expectancy has increased significantly, especially in more industrially developed countries. The was born in 1960, when the United Nations began compiling global data, could expect to live to complete 52.5 years old. Today, the global average is 72 years old. In Latin America countries, as Brazil, the jump was much greater – from 48 years old to the current 75.7 years old. Based on this observation, a person could then pose the following question to a bioconservative and to a transhumanist: would we be facing a case of radical extension of life? While a bioconservative would likely answer that the increase in life expectancy has occurred naturally, ignoring advances in medicine and improvements in many aspects of health and public policy, a transhumanist would argue that this is due to advances in general biotechnology, making even possible to separate the increase in life expectancy at an unintentional level and the improvement that aspires to radical extension of life for thousands of years. But can we really talk about a moral difference between "natural" increase in life expectancy and the optimistic aspiration of transhumanists and their transformative technologies?

As in the case of the Bajau people, bioconservatives and transhumanists ignore human appropriation of "biotechnological artifacts" throughout history. The invention of writing, the organization of social life, the public management of education system, the improvement of the scientific methos and the construction of international legislation are no less significant than the use of exoskeletons, the brain implants, and advances in genomics in the early detection of diseases and in the elimination of disease. That is why a bioconservative who were present in the

first science debates of the 16th century, would probably use the same current argument and would state that avoiding it would make it possible to protect us from a lot of disasters, many of them incalculable, but, as it happens currently, would not be able to measure how the use of some artifacts throughout history meant in terms of physical, cognitive, and moral improvement [9].

Conclusion

The human enhancement debate, therefore, needs to think about its own development like an inseparable and intrinsic strategy among human history. If the organism's evolution has no plan, then, a way of humanizing ourselves would be to evaluate the preservation and modification mechanisms of our design and our capabilities. The use of tools and technologies that consider our complex bodily actions of eyes and hands are part of the way our brains were formed, as described by Ihde, but this also needs to recognize that some people may not be open to any use we desire or invent. Otherwise, betting only on the talents and powers and ignoring our responsibility for them, besides the effort to develop and exercise them, means looking for a design – physical, cognitive, and moral – in which form we do not know how it should be, but that our illusory beliefs hope to find.

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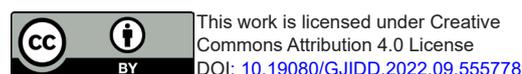
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