



## Posthuman – Postnature? Transhumanism and Environmental Ethics\*

**FILIP BARDZIŃSKI**

*Zakład Etyki, Instytut Filozofii*

*Uniwersytet im. Adama Mickiewicza w Poznaniu*

*ul. Augustyna Szamarzewskiego 89C, 60-568 Poznań*

*E-mail: fmbardzinski@gmail.com*

---

### Abstract

The author proposes a set of possible objections and amendments to the notion of transhumanism that can be made from the standpoint of environmental ethics. The transhumanist movement, as it is developed by such researchers as Nick Bostrom, Ingmar Persson, Julian or Savulescu, is devoted to identifying the best ways and measures of utilizing the scientific knowledge of human biology in order to allow people overcoming the limits of their current biological condition. However, such project raises several moral, ethical, political, and economical issues. It is worthwhile – in the author’s opinion – to broaden the discussion over transhumanism by including environmental issues, raised by such thinkers as Aldo Leopold or Paul W. Taylor. The author argues for a radical concept of enhancement – in opposition to Nicholas Agar’s “moderate enhancement”. The author believes that by introducing the Taylorian concept of “respect for nature”, it is possible to ameliorate the transhumanist program by – on one hand – identifying its possible shortcomings, but also by ensuring the care or the best possible ecological conditions for future generations.

**Key words:** environmental ethics, transhumanism, human enhancement, ethics of respect for nature, Paul W. Taylor, Nick Bostrom, Julian Savulescu

---

### 1. INTRODUCTION

In 2008, Nick Bostrom, one of the main apologists of the transhumanist movement,<sup>1</sup> shared his reasons why would he want to become a posthuman:

---

\* The writing of this article was funded by the Polish National Science Centre (Dec-2013/10/E/HS5/00157).

You cherish your improved health: you feel stronger, more energetic, and more balanced. (...) You also discover a greater clarity of mind. You can concentrate on difficult material more easily and it begins making sense to you. (...) You can follow lines of thinking and intricate argumentation farther without losing your foothold. (...) Your experiences seem more vivid. (...) You begin to treasure almost every moment of life (Bostrom, 2008, p. 111).

As Bostrom states, there are certain posthuman ways of living that are worth achieving. Thus, the general notion of posthumanism would be to mend human nature in such a way that would extricate all possible physical, mental and moral capacities of the human species. As Julian Huxley writes, “It is as if man had been suddenly appointed managing director of the biggest business of all, the business of evolution (...). What the job really boils down to is this – the fullest realization of man’s possibilities, whether by the individual, by the community, or by the species in its processional adventure along the corridors of time” (Huxley, 2015, pp. 12-13). Appointing the leading role of own biological evolution is thus not only a worthy option, but rather, an inevitable necessity. Whether such a commanding role over ones biological constitution can be ethically acceptable is of dispute. Several arguments against posthumanism can be made, ranging from questions of feasibility and social consequences, to breaching the intrinsic value of human nature, to disturbing the intergenerational logic of parent and childhood. What is often left about is the possibility of incorporating the posthumanist principle into a broader context of environmental ethics.

The persistence of a global ecological crisis is undisputable. Although it is still disputed to what extent it is due to human impact on natural environment; however, the awareness of its existence may be dated back to the mid-20<sup>th</sup> century. In the introduction to his famous work on the phenomenon of life, James Lovelock wrote, “In those days of the early 1970s, we were still innocent about the environment. (...) Global change, biodiversity, the ozone layer, and acid rain all were ideas barely visible in science itself, still less of public concern” (Lovelock, 2000, p. vii). It was not until the two last decades of the past century that the ecological crisis has become of utmost importance, as well as so evident. In 1989, Murray Bookchin observed that, “The present crisis (...) was predictable – and predicted – decades ago. There is an all-but-forgotten history of dire portents, urgent warnings, and unsuccessful efforts by an earlier generation of environmentalists to deal with the social factors that underpin environmental problems”

---

<sup>1</sup> I will refer to the terms “posthumanism” and “transhumanism” as synonymous. Although it may be seen as an essential mixing of two different concepts, I will address the issue by saying that the posthuman (as an individual, as well as a whole specie) is being perceived by transhumanists as the *telos*, aim of enhancement. I thus believe it is acceptable to state that those two terms refer to the same matter. For more information on the notion of different contexts of posthumanism, see: Ferrando, 2013.

(Bookchin, 1989, p. 20). Although, as Bookchin pointed out, there existed several indications of a growing need for a more sustainable model of economic, industrial and cultural development, the struggle to reorganize modes of productions and consumption was, and still is, a continuous effort, as seen e.g. in the yearly published Millennium Development Goals Reports (cf.: United Nations, 2014). Thus the need for a wholesome, interdisciplinary reflection on the moral, ethical and practical status of natural environment was born. Environmental ethics aims at responding to such questions as to why humanity should take into moral account the condition of natural habitats and other species<sup>2</sup>.

I wish to discuss the notion of posthumanism from the perspective of environmental ethics. When discussing posthumanism, I will concentrate on the normative notions present in the works of Nick Bostrom, Julian Savulescu, Mark Walker and other proponents of posthumanism. I wish to concentrate on both the normative propositions stated by the aforementioned philosophers, as well as the justifications given for them, as well as the possible objections. However, I would like to set aside the notions of feasibility, as well as consequences limited to human society, since these topics are, in principle, absent in the environmental ethics perspective.

When talking about environmental ethics, I would like to appoint the egalitarian perspective of ethics of respect for nature developed by Paul W. Taylor and broaden it by putting accent on the holistic approach of James Lovelock. Taylor's perspective in environmental ethics may provide, in my opinion, an interesting frame for discussing the concept of posthumanism and enhancing the human species.

## 2. POSTHUMANISM AND HUMAN ENHANCEMENT

The source of the posthumanist and transhumanist concepts may be tracked back to the turn of the 20<sup>th</sup> century, when the growing knowledge of human biological capacities, as well as the capability to understand and control the mechanisms of inheritance gave birth to the concept of eugenics.<sup>3</sup> What Francis Galton wished to achieve was the bettering of human societies through

---

<sup>2</sup> “The questioning and rethinking of the relationship of human beings with the natural environment over the last thirty years reflected an already widespread perception in the 1960s that the late twentieth century faced a “population time bomb” and a serious environmental crisis” (Brennan & Lo, 2011).

<sup>3</sup> Nick Bostrom argues that it is possible to trace transhumanist notions of thinking back to the ancient era of Gilgamesh. He also further refers to certain passages from e.g. Giovanni Pico della Mirandola, Immanuel Kant and Frederic Nietzsche, as well as Charles Darwin. I do not believe such a genealogy is viable, as it mixes two different concepts: that of transcending one's limits *via* scientific measures and that of transcending one's nature through own capacities. (Cf. Bostrom, 2005a; Spaemann, 1998, 2006). Further, it is possible to retrace some transhumanist notions

application of positive and negative measures of controlling reproduction. The downfall of the eugenic ideas was due both the horror of the Holocaust and Nazi regime in Germany, but also due to the generally authoritative stance of the classical state-based eugenic thinking.<sup>4</sup>

The renaissance of post-eugenic thinking may be identified with the diverse philosophical notions that have been developed since the discovery of deoxyribonucleic acid double helix (DNA) in 1953 by James Watson and Francis Crick. These projects, including those of Robert Nozick (the so-called “genetic supermarker”), Jonathan Glover (in his famous work *What Sort of People Should There Be?*), Philip Kitcher, John Robertson, and others, had a common denominator: they all agreed upon the notion of moral permissibility to change and ameliorate human biological capacities through scientific means.<sup>5</sup> The aforementioned thinkers may be seen, although only to some extent, as the intellectual forefathers of the modern transhumanist movement.

The transhumanist movement (formerly known also as Humanity+) may be linked to the philosophical notions developed by Nicholas Agar (although he himself fiercely dismisses the label of “transhumanist”), Julian Savulescu, Nick Bostrom, Anders Sandberg, Mark A. Walker, and others. The concept was brought to life in the late 1990s by Agar in his famous paper *Liberal eugenics*, in which he defended the idea that “recent advances in the understanding of human heredity offered by the new genetics have prompted a revival in eugenics” (Agar, 1998, p. 137). The perspective Agar wishes to defend is that of moderate human enhancement: although introducing the need for a new eugenics and supporting reproductive freedom, and thus the right of parents to choose the characteristics of their offspring (cf. Agar, 2005), the New Zealand ethicist refrains from the radical perspectives of Bostrom, Savulescu, Sandberg or Persson.

Transhumanism may be explicated as a

loosely defined movement that (...) promotes an interdisciplinary approach to understanding and evaluating the opportunities for enhancing the human condition and the human organism opened up by the advancement of technology. (...) The enhancement options being discussed include radical extension of human health-span, eradication of disease, elimination of unnecessary suffering, and augmentation of human intellectual, physical, and emotional capacities. Other transhumanist themes include space colonization and the possibility of creating superintelligent machines, along with other potential developments that could profoundly alter the human condition (Bostrom, 2003, p. 493).

---

in the 16<sup>th</sup> century philosophy of human development through scientific evolution of Francis Bacon (cf. Burdett 2011).

<sup>4</sup> For more information on the history of eugenics, see: Bashford & Levine, 2010.

<sup>5</sup> For more information on this topic, see: Bardziński, 2014.

As seen, the main topics that are brought into the debate concern the future of the human species. Transhumanists assume that since we do possess certain knowledge on how our bodies and minds function, and how individual traits are passed from parents to their offspring, it is our moral obligation to seize the opportunity and make it happen: “Enhancement is no luxury. In so far as it promotes well-being, it is the very essence of what is necessary for a good human life” (Savulescu, 2005, p. 38). In order to actualize these claims, it is necessary to “embrace technological progress, while strongly defending human rights and individual choice, and taking action specifically against concrete threats, such as military or terrorist abuse of bioweapons, and against unwanted environmental or social side-effects” (Bostrom, 2005b, p. 203). It is thus obvious that the human enhancement project falls into the logic of development, as known since the Industrial Revolution, and which includes the amendment suggesting the need for sustainability and acting responsibly.

Empowering parents with the right to freely choose the genotype (and thus, to some extent, the phenotype) of their future children is thus an obvious claim made by transhumanists. As Savulescu stated: “Couples (or single reproducers) should select the child, of the possible children they could have, who is expected to have the best life, or at least as good a life as the others, based on the relevant, available information” (Savulescu, 2001, p. 415). The claim made by the Australian utilitarian does not, in his opinion, violate any kind of social agreement concerning the responsibilities of parents over their children: since the dawn of civilization, we have induced certain social practices, as well as our own beliefs and dreams on our children, in the forms of upbringing, formal and informal education, and other parental and social institutions. Why should we then, ask the transhumanists, refrain from applying more precise and effective measures (such as preimplantation genetic screening – PGD, genetic engineering, and others)?

One of the most common claims is that PGD procedures, as well as genetic engineering, in the transhumanist sense make it possible to “produce designer babies,” who would be genetically determined from the start to present and endorse certain traits and talents. There are at least three reasons for which this perspective may be seen as unethical. Firstly, it would probably severely damage one’s own autonomy, as he would either be, or perceive himself to be, somehow limited in his life decisions: “Irrespective of how far genetic programming could actually go in fixing properties, dispositions, and skills, as well as in determining the behavior of the future person, *post factum* knowledge of this circumstance may intervene in the self-relation of the person, the relation to her bodily or mental existence. The change would take place in the mind” (Habermas, 2006, p. 53). Jürgen Habermas thus links the danger of “designing babies”

with the potential risks of self-doubt and self-alienation that may occur as a consequence of genetic engineering.

Secondly, we may address the social consequences of enabling parents to freely choose the characteristics of their offspring. It is obvious, say the opponents of transhumanism, that certain traits are, and will remain to be, perceived as less worthy than others, e.g. lacking some motor skills, having dental health issues, and so on. Thus, such traits will not be engineered and will rather be eradicated. However, as pointed out by Sonia M. Sutter: “By promoting technologies to avoid the birth of children with genetic conditions or unwanted traits, we define the «unfit» (though perhaps we don't use precisely that expression) in terms of that disability or trait. This fact alone may devalue the lives of those with the trait” (Sutter, 2007, p. 955). Thus, transhumanism, we are asked to believe, has to deal with the problem of how to accommodate, on one hand, the appearance of those of supernatural value – the “posthuman”; and, on the other hand, the existence of the mentally and physically disabled. It is impossible, states Sutter, to avoid the discriminatory notion of a social trend to prefer some traits to others.

Finally, we may consider Robert Spaemann’s argument that a “society made up only of Einsteins or Boris Beckers is as impossible as a society that, because of either tradition or fashion, produces predominantly male or female children. (...) The consequences of planning human biology would not be [reversible]” (Spaemann, 2006, p. 291). The German philosopher refers to the popular notion of dystopian societies (such as those portrayed in the movie *Gattaca*, or the novel *Brave New World*) that are based on genetic screening and engineering. This argument may further prove to be important, as it points us to the notion of diversity as something that possesses inherent value, and thus should be ethically and legally protected.

Transhumanists defend their notions by saying that it is impossible to affect one’s life plan *via* genetic engineering, thus it is impossible to actually limit one’s autonomy: “A systematic life plan modification is beyond the reach of genetic engineers and this inability imposes restrictions on the other types of enhancement” (Agar, 1998, p. 138). Furthermore, transhumanists point out the fact that, when given the possibility, disabled people would choose to live able-bodied rather than with disabilities. Thus, we generally value certain traits, but this does not implicitly mean that we perceive lives lacking certain traits as “unfitting” or “less worthy” (Savulescu, 2001, pp. 423-424). Thirdly, the dystopian future that bioconservative philosophers speak of is derived from the horrors of traditional, state-regulated eugenics. Instead, modern proponents of human enhancement emphasize that the decision-making authority rests not in the hands of any social or political institution, but in the domain of the prospective parents, in accordance with their individual beliefs and values. As such, it rather promotes

diversity than uniformity, thus evading the danger of a “society of Einsteins” (see: Agar, 1998; Savulescu, 2001). These claims, however, do not exhaust the ever-growing debate on the morality of human enhancement.

### 3. TO ENHANCE OR TO AMELIORATE

As presented above, posthumanism aims at and promotes such interventions into human capacities that will substantially lead the human species to transgress its own limits and become posthuman. This perspective may be a source of unease, as it literally invites human individuals to, in some way, lose their humanity. This accusation has been addressed, *inter alia*, by Nicholas Agar in his recent work *Truly Human Enhancement: A Philosophical Defense of Limits*. The New Zealand philosopher argues that there exist two types of enhancement, one of which should be considered as ethically unacceptable: “The principal focus of this book is the significance of differences in degree of human enhancement. Its guiding idea is that human enhancement is a good thing, but one that it’s possible to have too much of” (Agar, 2014, p. 1). The criterion given by Agar is that of transforming one’s subjective axiology: certain enhancement techniques – he argues – may lead us to discovering that “some enhancements of greater objective magnitude are less valuable than enhancements of lesser magnitude” (Agar, 2014, p. 27). Agar argues that it is possible the consequence of a radical enhancement would be “to replace very valuable experiences and achievements with less valuable experiences and achievements” (Agar, 2014, p. 55). Agar thus defends one’s right to remain her or himself, to preserve one’s identity, which he understands as being based on a personal hierarchy of values and goods.

Although refraining from radical enhancement, Agar believes in principle that human enhancement that would not threaten our humanity, is not only ethically permissible, but altogether desirable. However, it is possible to use the slippery slope argument<sup>6</sup> against Agar’s notion. What Agar outright acknowledges is the fact that enhancement is, to some extent, already present in daily practices; and, furthermore, has a hundred year long history, dating to the beginning of the 20<sup>th</sup> century. Thus, we may speak of an evolution of enhancing technologies: departing from surgical and cosmetic procedures, to pharmacological enhancers (e.g. Methylphenidate, commonly known under the trademark Ritalin), to gene therapy and genetic engineering. In consequence, it is difficult to imagine the feasibility of Agar’s claim of a truly

---

<sup>6</sup> I will refer to the empiricist version of the slippery slope argument in its psychological and sociological form, as it was defended by Tom Beauchamp and James Childress: “Those who take seriously some versions of the slippery slope argument should simply admit that the argument needs a premise on the order of a precautionary principle, such as «better safe than sorry»” (Beauchamp & Childress, 2001, p. 146).

human enhancement, as it aims only at turning or adjusting the current in which enhancement technologies are being developed and introduced. Such a minor interference is, in a practical sense, easy to introduce, yet it is possible (and the probability is not statistically insignificant) that, before long, it will be abandoned in favor of a less restricting concept, as we observe happening nowadays.

We may further elaborate the abovementioned claim by a simple metaphor. Let us imagine that we live in a society in which everybody has their own unique automobile. We can freely improve the performance of our car to every possible extent. I would imagine that it would be wise, to thus insist on compulsory driving instructions for those who would convert their vehicles into racing cars. If not, we would have to content ourselves only with a not fully rational and justified belief that they will be capable of both having the technical knowledge how to drive such an automobile, as well as some ethical awareness of how to behave in traffic.<sup>7</sup>

We may conclude as follows: there is no third way equivalent in human enhancement debates, as in the sense introduced by Anthony Giddens in economy and Ronald Dworkin in jurisprudence. Although Agar may believe it possible to distinguish truly human and radically posthuman enhancement, it is in fact only a cautious argument for enhancement – and not a balance between the bioconservative and transhumanist claims. Assuming that there exists an accommodating perspective between bioconservatism and human enhancement does not always constitute an alternative for opposing extremities – it may also be seen as an attempt to resign from one's beliefs, but for a certain price. In the case of human enhancement, we may believe that Agar's proposition is, on one hand, an endeavor to avoid a dystopian future; but on the other hand, it is incapable of abandoning enhancement altogether. In other words, Agar may find certain pleas against transhumanism as convincing, but at the same time is "unwilling to draw even the most apparent conclusions" (Spaemann, 2012, p. 194).

In effect, what we are to decide here does not address the question: "To what extent ought we to enhance?" but rather "Ought we enhance at all?" I will set forth such a perspective when talking about the environmental issues concerning human enhancement. Although this conclusion may seem radical, it actually fits the current philosophical debate, as well as the dynamics of the development of medical sciences.

---

<sup>7</sup> Those two being, respectively, what the Ancient Greeks known under the names of *techne* 'τέχνη' and *phronesis* 'φρόνησις'.

#### 4. PRINCIPLES OF ENVIRONMENTAL ETHICS

As stated earlier, environmental ethics was founded in the 1970s as an intellectual reaction to the growing risks and dangers of industrial and civilizational development. Environmentalists take into account the finiteness and scarcity of natural goods, such as fossil fuels, but also point out the fact that such phenomena as biodiversity, natural landscapes, and others may be seen as something of certain value. These phenomena, environmentalists will argue, are not a means to an end (respectively: a means for humankind to achieve prosperity and welfare), but are the most basic and universal condition of even the mere existence of any life at all: “Like winds and sunsets, wild things were taken for granted until progress began to do away with them. (...) We abuse land because we regard it as a commodity belonging to us. When we see land as a community to which we belong, we may begin to use it with love and respect” (Leopold, 1989, p. viii). Any kind of interventions into nature (both in its biotic and abiotic sense) that does not take into account the wide context of both its present and future consequences may result in dramatic damage not only for those affected directly, but also for the myriads of others, who will be effected only indirectly, but with similar severity. This point is one of the main arguments<sup>2</sup> on which the work of Aldo Leopold is focused:

We all strive for safety, prosperity, comfort, long life, and dullness. The deer strives with his supple legs, the cowman with trap and poison, the statesman with pen, the most of us with machines, votes, and dollars, but it all comes to the same thing: peace in our time. A measure of success in this is all well enough, and perhaps is a requisite to objective thinking, but too much safety seems to yield only danger in the long run (Leopold, 1989, p. 133).

It becomes thus visible that interventions aimed at the prosperity of only a selected group is not only unacceptable, but also may pose a threat to the wellbeing of their heirs.

Although we may believe that the need for environmental protection and sustainable development seems obvious, it is still a matter of ethical consideration how these concepts are grounded and justified. Such a philosophical attempt has been made by Paul W. Taylor in his egalitarian and biocentric concept of respect for nature. Taylor defines his position as “a set of moral norms (both standards of character and rules of conduct) governing human treatment of the natural world” according to which “it is the good (well-being, welfare) of individual organisms, considered as entities having inherent worth, that determines our moral relations with the Earth’s wild communities of life” (Taylor, 1981, pp. 197-198). Taylor insists on the fact that not only human beings are depositaries of inherent value, but all living beings. As such, Taylor opposes the since-dominant anthropocentric perspective by asking “in what sense are humans

alleged to be superior to other animals? We are different from them in having certain capacities that they lack. But why should these capacities be a mark of superiority?” (Taylor, 1981, p. 211)<sup>8</sup>. As an alternative, Taylor proposes adopting a biocentric perspective, according to which all “wild living things possess inherent worth and should be respected as such” (Evans, 2005, p. 77). Taylor accords thus intrinsic value to the phenomenon of life itself instead of limiting it to a rational one only, as was done by Aristotle or Immanuel Kant (cf. Aristotle, 2012; Kant, 2002). In consequence, argues Taylor, we have to take into account, as acting moral agents, not only our personal gain, but also the needs and interests of other living beings, even when those non-human beings remain unaware of having them:

With regard to our human role as moral agents, we can conceive of a teleological center of life as a being whose standpoint we can take in making judgments about what events in the world are good or evil, desirable or undesirable. In making those judgments it is what promotes or protects the being’s own good, not what benefits moral agents themselves, that sets the standard of evaluation (Taylor, 1981, p. 211).

Taylor believes that when embracing such an attitude, we have to accept the fact that it should be forbidden to cause harm to any living being without a valid and intersubjectively acceptable justification: “Any human actions that unnecessarily – in a very tough sense – harm nonhuman life are forbidden; it is morally impermissible for human beings to use nonhuman nature without some kind of overriding justification. This often takes the form of claims that we have a duty to protect and enhance the well-being of wild living things” (Evans, 2005, pp. x-xi).

Taylor’s ethics of respect for nature, based on the notion of the inherent value of all living individuals, may be seen as one of the most emancipating concepts in environmental ethics. What differs Taylor’s view from the utilitarian philosophy of Peter Singer (well known for his advocacy of animal rights and veganism), is the ability to ascribe value not only to animals, but to the biosphere as a whole. What Singer accomplishes is the foundation for respect towards beings somehow sentient of their interests: “Utilitarians in general attribute intrinsic value to the experience of pleasure or interest satisfaction as such, not to the beings who have the experience” (Brennan & Lo, 2011). What is lacking is the recognition that it is not only the experiencing of one’s pleasure that makes one possessing inherent value. Rather, we may follow Taylor’s (and also Albert Schweitzer’s) justification, which identifies the phenomenon of living (being alive) as something valuable. In consequence, for Singer and other utilitarians, “non-sentient objects in the environment such as plant species, rivers, mountains, and landscapes, all of which are the objects

---

<sup>8</sup> I will defend the anti-anthropocentric attitude, as it seems to fit best the modern neo-materialistic perspective of transhumanism. For a depth discussion on the relation between transhumanism and new materialism, see: Ferrando, 2013.

of moral concern for environmentalists, are of no intrinsic but at most instrumental value to the satisfaction of sentient beings” (Brennan & Lo, 2011). The utilitarian perspective, thus, does not address the environmental issue of modernity, contenting itself instead with emancipating those beings that are capable of experiencing pleasure and pain. Yet, those experiences are often rooted in and derived from the diversity of nature: “There are some who can live without wild things, and some who cannot. (...) For us of the minority, the opportunity to see geese is more important than television, and the chance to find a pasque flower is a right as inalienable as free speech” (Leopold, 1989, p. vii)<sup>9</sup>. It is impossible to think of nature as having only instrumental value, as it is, for many, the most basic condition of experiencing any kind of positive emotions.

The ability to assume and maintain an attitude of respect for nature is, according to Taylor, not an easy one. It demands viewing all living beings, as well as the whole biosphere, as worthy of our respect. Yet, the biocentric perspective is necessary in order to actually pass from thoughts to action: “Taylor admits that «we cannot see the point of taking the attitude of respect» until we understand and accept the biocentric outlook”, which, when achieved, makes it understandable why “a person should adopt that attitude [of respect] as the only appropriate one to have toward nature” (Engel Jr., 2009, p. 303).

It is worthwhile adding one additional comment on the concept of ethics of respect for nature. As observed by James Lovelock, the biosphere is not only an aggregate of all living beings; but, taken as a whole, may be perceived as a gigantesque organism, in which all living creatures function in a way that maintains a homeostasis, favorable for the subsistence of life. Lovelock believed he did encounter empirical trails that supported such claim and decided to name this supra-being after the Greek Mother-Earth: “If Gaia does exist, then we may find ourselves and all other living things to be parts and partners of a vast being who in her entirety has the power to maintain our planet as fit and comfortable habitat for life” (Lovelock, 2000, p. 1). Although Lovelock’s claim has been renounced as scientifically falsified, it may still, in my belief, serve an important role in environmental debates. As Lovelock himself pointed out, understanding the concept of Gaia literally does not fit his intentions; rather, we can understand it metaphorically, similarly to Richard Dawkins’ claim: “If you are someone wanting to know for the first time about the idea of Gaia, it is the story of a planet that is alive in the same way that the gene is selfish” (Lovelock, 2000, p. ix). What Lovelock wishes to advocate is the need for a

---

<sup>9</sup> One might argue that the existence of a pasque flower is certainly very important but the freedom of speech in China is rather more worrisome. Such a view may seem mere common sense based on the fact that human life and thus human freedom is more important than the existence of a flower. Such claim is heavily flawed, as it ignores the fact that in order to exercise one’s freedoms and basic rights, a healthy and sustained natural environment is more than a basic requirement – it is the condition for biological existence at all. In this case, whether a pasque flower exists or not is not a matter of aesthetical value, but of living at all.

holistic model of environmental ethics that does not limit itself to certain (and arbitrarily chosen) questions and notions, but rather takes into account the interconnectivity of many different phenomena, which take place in the biosphere, and also on the crossings of biotic and abiotic beings. Thus, Lovelock's ethical claim would be to "love and respect the Earth with the same intensity that we give to our families and our tribe" (Lovelock, 2000, p. ix). Such claim corresponds with Taylor's notion of respect for nature, yet it broadens the catalogue of beings to which we may attribute inherent value with abiotic elements, such as landscapes or oceans.<sup>10</sup>

## 5. TRANSHUMANISM AND ENVIRONMENTAL ETHICS

As noted above, there are some concerns environmentalists may raise against the notions of transhumanism as it is developed by Savulescu or Bostrom. Firstly, as it is visible at first glance, transhumanism takes into account only the well-being of the human species, as it is both the agent and the object of all aforementioned enhancing procedures. *Ipsa facto*, it is impossible to dismiss the claim that transhumanism is an anthropocentric concept. In the same time, Taylor argues that there are no reasons that could justify any kind of human superiority over other living beings (cf. Taylor, 2011, pp. 129–156). At this point, environmentalists could ask what moral reasons we have to deny other living beings the benefits derived from the development of biology and medical sciences. If such reasons could be given, they would have to simultaneously explain why a certain fundamental liberty (cf. Savulescu, 2001, p. 425) should not be made available to other living beings, even though it should be available to each and every human being. Transhumanists underline the fact that the possibility to enhance is in fact crucial for a just and equal society: "Failure to enhance may result in significant injustices. It is within our power to use technology and enhancement to bring about a more just society, where everyone has a fair go" (Savulescu, 2006, p. 336). Thus, in order to prevent promoting social status differences and exclusion, we should make enhancement as widely available, as possible.

In consequence, no reasons for limiting enhancement to humans only could be found (this view would probably be in accordance with the biocentric attitude of Taylor). Yet, this conclusion is not satisfying either, as it is impossible to determine what kind of enhancement would improve the animal well-being. Since animals (with exception of primates, dolphins, rodents, and maybe some other species) are generally not capable of expressing their preferences regarding abstract concepts, we would be condemned to make arbitrary decisions concerning which traits and to what extent we ought to enhance in animals.

---

<sup>10</sup> For more on the topic of a holistic environmental ethics, see: Dereniowska, 2012.

Further, if we take into account the Gaian amendment to Taylor ethics of respect for nature, we would have to assert a variety of variables and interconnections of the biosphere (and its links with other, abiotic, beings) in order to avoid any potential harm to the ecological balance. It is easy to imagine that if we, for example, arm wolves with greater agility and swiftness, we should take into account the possible risks for herbivores. However, no ecosystem is as simple as a single “predator – herbivore” example.

Apart from the notion of a just distribution of enhancement technologies over non-human animals, we may also consider the impact enhancement could have on human morality. Savulescu and Persson argue that

through science and technology, humans have radically changed their living conditions, while their moral psychology has remained fundamentally the same throughout this technological and social evolution (...). [Scientific evolution] is leading to increasing environmental degradation and to harmful climate change. (...) What is needed is an enhancement of the moral dispositions of citizens, an extension of their moral concern beyond a small circle of personal acquaintances (Savulescu & Persson, 2012, p. 400).

If we agree with the transhumanist claim for a new, broader morality, it would mean that the post-human would represent a greater-than-humane concern for nature and the whole biosphere. If so, we may assume that the post-humans would cherish nature as it is, in its “natural” beauty. However, post-humanity itself would rather be of artificial than natural origin. We may now wonder if and how post-humanity would deal with this problem of, on one hand, cherishing nature and life and simultaneously knowing his greater-than-standard moral capacities are due to genetic manipulation. The opposition between what is natural and what is artificial may, in effect, grow to become a greater-than-ever difficulty.

Moreover, environmentalists may also accuse transhumanists of openly discarding the notion of respect for nature as such. Nicholas Agar made clear that the concept of life as such has no ethical meaning whatsoever: “The biocentrist attempts to derive robust ethical safeguards for the environment from the claim that merely being alive carries moral significance. Unfortunately, there are serious doubts about the fitness of the concept of life to play such a major role in moral theory” (Agar, 1997, p. 147). It is highly probable that the utilitarian-based transhumanists, such as Savulescu, would agree with the concept that it is not life that possesses moral value, but rather a sentient one. If so, it is difficult to avoid the already mentioned plea against Singer’s animal liberation as being arbitrary selective in distributing the most basic moral status. Preferably, being sentient, as an extension to being a living being, may be seen as an additional reason and justification to grant not only minimal moral status, but also more broad legal rights and liberties.

Finally, it is possible to ask, from the standpoint of environmental ethics, whether employing genetic engineering measures in order to perfect human nature does not, in fact, inflict harm to humanity itself. The human species evolved for thousands of years in order to attain the specific set of traits that made it adapt to different natural conditions. However, as stated by Stephen J. Gould: “Homo sapiens arose at least 50,000 years ago, and we have not a shred of evidence for any genetic improvement since then. (...) we have transformed the surface of our planet through the influence of one unaltered biological invention – self-consciousness (...) without substantial genetic change” (Gould, 1980, p. 83). This observation raises a paradox: although the impact of Darwinian evolution is observable at species level, transhumanists consider bettering human biologically-dependent capacities on an individual level. Manipulating with both the human genome and with human biological capacities, may pose an additional threat to the natural balance, which, as remarked by many environmentalists, is already heavily disturbed by human actions.

## **6. CONCLUSION**

I have attempted to list some general possible objections that environmentalists could raise against the radical concept of transhumanism. Although they do not disrupt the general notion developed by Bostrom or Savulescu, the need to define and implement practical solutions to how the advancement in medical sciences and technology may be beneficial for the human condition and the basic need to perfect one’s capacities and traits deemed as valuable. The reflections mentioned may be seen as an additional safety harness that not only broadens the beneficiaries of human enhancement to other species and the whole biosphere by taking into account their inherent value, but also ensures the best living conditions for future generations, which is explicitly one the main aims of transhumanist enhancement.

## REFERENCES

- Agar, N. (1997). Biocentrism and the Concept of Life. *Ethics*, 108(1), 147-168.
- Agar, N. (1998). Liberal Eugenics. *Public Affairs Quarterly*, 12(2), 137-155.
- Agar, N. (2005). *Liberal eugenics: in defence of human enhancement*. Malden, MA: Blackwell Pub.
- Agar, N. (2014). *Truly human enhancement: a philosophical defense of limits*. Cambridge, Massachusetts: MIT Press.
- Aristotle. (2012). *Nicomachean ethics*. (R. C. Bartlett, Trans.) (5. pr). Chicago: Univ. of Chicago Press.
- Bardziński, F. (2014). Czwarta rewolucja. Transformacja pojmowania natury ludzkiej w etyce schyłku XX wieku. *Humaniora. Czasopismo internetowe*, 1(5), 103-120.
- Bashford, A., & Levine, P. (Eds.). (2010). *The Oxford Handbook of the History of Eugenics*. New York, NY: Oxford University Press.
- Beauchamp, T. L., & Childress, J. F. (2001). *Principles of biomedical ethics* (5th ed). New York, N.Y: Oxford University Press.
- Bookchin, M. (1989). Death of a Small Planet. It's growth that's killing us. *The Progressive*, 19-23.
- Bostrom, N. (2003). Human genetic enhancements: a transhumanist perspective. *The Journal of Value Inquiry*, 37(4), 493–506.
- Bostrom, N. (2005a). A History of 'Transhumanist' Thought. *Journal of Evolution and Technology*, 14(1), 1–25.
- Bostrom, N. (2005b). In Defense of Posthuman Dignity. *Bioethics*, 19(3), 202-214.
- Bostrom, N. (2008). Why I Want to be a Posthuman When I Grow Up. In B. Gordijn & R. Chadwick (Eds.), *Medical Enhancement and Posthumanity*. New York, NY: Springer.
- Brennan, A., & Lo, Y.-S. (2011). Environmental Ethics. In E. N. Zalta (Ed.), *The Stanford Encyclopedia of Philosophy* (Fall 2011). Retrieved from <http://plato.stanford.edu/archives/fall2011/entries/ethics-environmental/>
- Burdett, M. S. (2011). Contextualizing a Christian Perspective on Transcendence and Human Enhancement: Francis Bacon, N. F. Fedorov, and Pierre Teilhard de Chardin. In R. Cole-Turner (Ed.), *Transhumanism and Transcendence. Christian Hope in an Age of Technological Enhancement*. Washington, D.C: Georgetown University Press.
- Dereniowska, M. (2012). *On values of nature from the perspective of a pluralistic environmental ethics* (Doctoral thesis). Adam Mickiewicz University, Poznań. Retrieved from <https://repozytorium.amu.edu.pl/jspui/handle/10593/3939>
- Engel Jr., M. (2009). Taylor, Paul. In J. B. Callicott & R. Frodeman (Eds.), *Encyclopedia of Environmental Ethics and Philosophy* (Vol. 2, pp. 302-304). Detroit: Macmillan Reference USA.
- Evans, J. C. (2005). *With respect for nature: living as part of the natural world*. New York: State University of New York Press.
- Ferrando, F. (2013). Posthumanism, Transhumanism, Antihumanism, Metahumanism, and New Materialisms. Differences and Relations. *Existenz*, 8(2), 26-32.

- Gould, S. J. (1980). *The panda's thumb: more reflections in natural history* (1st ed). New York: Norton.
- Habermas, J. (2006). *The future of human nature*. (W. Rehg, M. Pensky, & H. Beister, Trans.) (Reprinted). Cambridge: Polity Press.
- Huxley, J. (2015). Transhumanism. *Ethics in Progress*, 6(1), 12-16.  
<http://doi.org/10.14746/eip.2015.1.2>
- Kant, I. (2002). *Groundwork for the metaphysics of morals*. (A. W. Wood, Trans.). New Haven: Yale University Press.
- Leopold, A. (1989). *A Sand County almanac and sketches here and there* (Special commemorative ed). New York: Oxford Univ. Press.
- Lovelock, J. (2000). *Gaia: a new look at life on earth*. New York: Oxford University Press.
- Savulescu, J. (2001). Procreative Beneficence: Why We Should Select the Best Children. *Bioethics*, 15(5-6), 413-426. <http://doi.org/10.1111/1467-8519.00251>
- Savulescu, J. (2005). New breeds of humans: the moral obligation to enhance. *Reproductive BioMedicine Online*, 10, 36–39. [http://doi.org/10.1016/S1472-6483\(10\)62202-X](http://doi.org/10.1016/S1472-6483(10)62202-X)
- Savulescu, J. (2006). Justice, Fairness, and Enhancement. *Annals of the New York Academy of Sciences*, 1093(1), 321-338. <http://doi.org/10.1196/annals.1382.021>
- Savulescu, J., & Persson, I. (2012). Moral Enhancement, Freedom, and the God Machine. *The Monist*, 95(3), 399-421.
- Spaemann, R. (1998). Interwencje genetyczne w naturę ludzką: W aspekcie osobowego bycia człowieka. *Ethos*, 4(44), 109-117.
- Spaemann, R. (2006). Begotten, Not Made. *Communio. International Catholic Review*, 33(2), 290-297.
- Spaemann, R. (2012). *Kroki poza siebie: Przemówienia i eseje*. (J. Merecki, Trans.). Warszawa: Oficyna Naukowa.
- Sutter, S. M. (2007). A Brave New World of Designer Babies. *Berkeley Technology Law Journal*, 22(2), 897-969.
- Taylor, P. W. (1981). The Ethics of Respect for Nature. *Environmental Ethics*, 3(3), 197-218.
- Taylor, P. W. (2011). *Respect for nature: a theory of environmental ethics* (25th anniversary ed). Princeton, NJ: Princeton University Press.
- United Nations. (2014). *The millennium development goals report. 2014*. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&scope=site&db=nlebk&db=nlabk&AN=858075>

