



**BETWEEN BIOETHICS AND TRANSHUMANISM: REMARKABLE
PERSPECTIVES AND ACUTE CHALLENGES IN TRANSIT TO A
POSSIBLE DYSTOPIAN FUTURE**

**ENTRE BIOÉTICA E TRANSHUMANISMO: PERSPECTIVAS NOTÁVEIS
E DESAFIOS AGUDOS EM TRÂNSITO PARA UM POSSÍVEL FUTURO
DISTÓPICO**

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ABSTRACT

Transhumanism, nowadays, is being incorporated into mass culture due to the fact that an increasing number of scientists are beginning to take very seriously the wide range of possibilities it comprises. The aim of this paper is to present an analysis of the problems and dilemmas faced by bioethics and its aspects in relation to transhumanism, showing the ideas in which convergence and divergence can be seen with respect to achievements and perspectives. It also shows the analysis of the current trends from different perspectives (social, legal, technological, moral, philosophical) in which transhumanism has been positioning itself and generating new panoramas. In the same direction, an





aspect derived from such development is presented: neuderlaw, regarding the scope, perspectives and contradictions resulting from the development of neurosciences and their application in the legal field.

Keywords: transhumanism; bioethics; neurolaw; posthuman.

RESUMO

O transhumanismo, hoje em dia, está sendo incorporado à cultura de massa devido ao fato de um número crescente de cientistas estar começando a levar muito a sério a ampla gama de possibilidades que ela compreende. O objetivo deste trabalho é apresentar uma análise dos problemas e dilemas enfrentados pela bioética e seus aspectos em relação ao transhumanismo, mostrando as idéias em que convergência e divergência podem ser vistas com relação a realizações e perspectivas. Mostra também a análise das tendências atuais sob diferentes perspectivas (social, jurídica, tecnológica, moral, filosófica) nas quais o transhumanismo vem se posicionando e gerando novos panoramas. Na mesma direção, é apresentado um aspecto derivado de tal desenvolvimento: neuderlaw, no que diz respeito ao escopo, perspectivas e contradições resultantes do desenvolvimento das neurociências e sua aplicação no campo jurídico.

Palavras-chave: transhumanismo; bioética; neuro-direito; pós-humano

1 INTRODUCTION

The human species has followed an evolutionary course in the face of an often hostile environment that requires adaptations in order to ensure the survival of the species; but what might happen if a mechanism or process could be found to surpass our current human state? To achieve such an outcome requires moving beyond the significantly human, it is to move towards transhumanism and posthumanism whose cascading effects will inevitably affect all of us (BATTLE, 2020).

Since Nuremberg and for many decades, the ethics of scientific research involving human experimentation has been a continuous source of concern and controversy. Currently, experimentation for profit sponsored by the large pharmaceutical industry has become a complex and widespread phenomenon with its own ethical challenges and dilemmas (AGAZZI, 2020).

Protecting vulnerable communities from the risks of unethical behavior and human exploitation often associated with the outsourcing of clinical trials in developing countries requires respect for internationally agreed standards. This chapter argues that mass experiments conducted in disregard of universal bioethical principles and human rights





may constitute, in their cruelest forms, crimes against humanity under international criminal law. It also suggests that, in such cases, the International Criminal Court would have jurisdiction over a wide range of responsible persons, including public officials of host and sponsoring states, physicians and researchers acting in their private capacities, as well as officers and directors of pharmaceutical companies. Corporations (NEGRI, 2020).

Nick Bostrom, director of the Institute for the Future of Humanity at Oxford University, considered one of the major theorists of the transhumanist current, affirmed that transhumanism, which in 1998 was named the World Transhumanist Association and has now called itself "Humanity +" (VARONA, 2021), is the new concept that represents the future of the human being. This conception is the amalgam of scientists and experts coming from different sectors of knowledge such as artificial intelligence, neurology, nanotechnology, applied biotechnology; who, together with philosophers and men of culture, pursue the same goal: to change and improve human nature, prolonging its existence, even eliminating the mortal condition (HOLUB, 2020).

Transhumanists believe that the possible improvements could provide us with a better quality of life and put an end to some diseases and incompatibilities in the near future, but this has the enormous possibility of causing us serious problems that, due to their novel nature, we could not face (KALUĐEROVIĆ, 2021). In this regard, the future social risks of an asymmetric or coercive application of transhumanist proposals will have to be taken into account, since it is possible to have as a result a small group of improved humans (richer) and those who are not (poorer) in dystopian scenarios.

The methodology for this work is based on the comparative method, induction-deduction, analysis of bibliographic sources derived from databases such as Scopus, Springer, Wos, Ebsco, Taylor and Francis, ProQuest and Scielo.

1.1 BIOETHICAL DILEMMAS IN THE WORK OF TRANSHUMANISM

From the beginning, bioethics has been developing as an evolution of medical ethics, due to the massive use of technology in the biomedical field, a fact that allowed to increase the possibilities of choice of the actors involved against the provisions of the





codes and standards already established, a fact that empowered the resolution of dilemmas arising from the new situations, which deepened the application of general ethical principles such as: non-maleficence, beneficence, justice, autonomy, respect for dignity, protection of fragility, sacredness of life, among others (AGAZZI, 2020; LIEDO AND RUEDA, 2021).

According to GAMA & DE MATTOS (2020), bioethics is a broad concept that encompasses aspects of science, politics, law and ethics, which due to its relevance is in constant evolution and is materialized as a study of human behavior in the field of life, health and potential risks in this field as a result of advances in biomedical and technoscientific research.

KALUDEROVIĆ (2021) explains that it is necessary to investigate what transhumanist ideas suggest, which are the routes that seek to improve the human condition, among others, so that we are able to glimpse what ethical dilemmas arise and will arise from such approaches, all with the aim of specifying possible tools for their bioethical support. Moreover, as many of these ideas are still evolving, Bioethics should deal with them in a preventive manner and have the capacity to be able to indicate possible abuses or harmful consequences derived from them.

A major dilemma to be addressed is that expressed by HOLUB (2020) who stated that transhumanism is a rival of contemporary bioethics as it tends to take control over it since there are attempts of transhumanism to replace bioethics in relation to the field of action since bioethics deals with the ethical inquiry of the present and existing corporeal human being; while transhumanism is oriented to a posteriori, future creature called posthuman.

According to DE ASIS (2022), human rights generate the ethical, legal and political framework in contemporary societies, which, as guiding principles, should regulate technological development. This approach gives rise to three general guidelines that can be applied to emerging technologies under a rights-based approach: (a) scientific-technological advances should serve the welfare of humanity, sustainable development, world peace and the protection and conservation of biodiversity; (b) human interests and welfare should prevail over the exclusive purposes of science or society, including the protection of human rights and respect for human dignity (such as the right to life, self-





determination, moral integrity, privacy, free will); and; (c) ensuring human dignity through the protection of human diversity, the environment, the biosphere and biodiversity (including the sustainable use of natural resources).

Although it sounds highly promising the achievements that transhumanism could yield, there are ethical dilemmas that, by their conjuncture, can put transhumanism in check, since the development of transhumanist proposals are heading towards a marked inequality and reinforced injustice, understood as a double challenge that would develop at the socioeconomic and intergenerational level, since transhumanism can exacerbate political, social and financial inequalities on a global scale, by favoring that only a few wealthy people can enjoy the benefits of improved advantages, while the poor and indigent would be relegated or in a situation of postponement. In cases of intergenerational injustice, transhumanism can irreversibly affect generations of individuals who have not yet been born, formalizing situations in which the younger generations would not be able to integrate into the new society, or if they did, it would be with a diminished capacity (MALAPI, 2021).

1.2 TOWARDS TRANSHUMANISM: PERSPECTIVES ON CONTRADICTIONS, CHALLENGES AND POSSIBILITIES.

The first time the word "transhumanism" was used was in 1957 by the evolutionary biologist Julian Huxley (SERRA, 2022; ENACHI, 2020) under the precept that nothing could prevent the progress of humanity, because the human species is prone to improve itself through science and technology and lead it to the posthuman, with which humanity could become independent of its biological determinants (MIHAILA ET AL., 2021). A more drastic view on the proposals of transhumanism is provided by LIMA & BELK (2022) who mentioned that they seek to redesign human biology through the so-called human enhancement technologies with genetic engineering at the forefront. Consequently, what has been elaborated by bioethical research must belong to a set of transhumanist efforts to be treated seriously. On the other hand, HOLUB (2020) mentioned that transhumanism depends or exists at the mercy of the so-called hard sciences, including biomedical





branches, without which it could not be sustained and thus would only be condemned to be part of futurology, including science fiction.

For GAMA & DE MATTOS (2020), the discussions on bioethics and transhumanism focus on the morality of coming, of the future of the human species, which is being built according to scientific progress and the ethical use of new technologies in order to meet human needs and the will to establish limits to biological work. According to transhumanists, death is unnecessary and medicine undermines humans, so a radical evolution that transcends to unrealized levels is necessary (BATTLE, 2020; HJELM, 2020). For the transhumanist viewpoint going beyond biological possibilities is more than a necessity, it would be just another step in the process of evolution. For example, being able to replace parts of the organism that are not useful by mechanical segments or the replacement of the whole body by a mechanical entity in order not to be affected by organic death, the extinction of pain, the elimination of biological deficiencies, leaving behind the organic body and passing the mind to a computer. Faced with all this, will such an entity continue to be considered as human or will we have to rethink the idea, what will become of us then? Many ethical dilemmas are those that still do not have answers or those that exist are not able to dimension everything that is to come (KALUĐEROVIĆ, 2021, POSTIGO, 2021).

Transhumanism assumes that the human species has not yet achieved its true potential, that such an achievement is possible if the way is unblocked through technological advances and scientific development. It is therefore oriented towards biomodification as a means to achieve a political goal that seeks to: a) take over evolution to the next stage of evolution, either as an improved version of *Homo sapiens* or to a post-human existence in the name of progress or improving the human condition or, b) take charge of our evolution in order to avoid disaster through corrective measures of our deficient biology, the same that predisposes the human species towards self-destruction. According to transhumanists (HJELM, 2020; HOLUB, 2020).

Transhumanists assume with certainty that science will change the course of human evolution. Moreover, they think that humans have already reached their maximum biological potential, and that to move forward they need to improve to overcome their limitations as biological entities and become transhuman and then posthuman (LIEDO &





RUEDA, 2021; KALUĐEROVIĆ, 2021; KOCH, 2020). In this regard HOLUB (2020) made known if transhumanist attempts to replace human biology were to achieve remarkable success, then it would elucidate the fact that the human being can be transferred to a completely new terrain i.e. to a new vessel or container. Becoming a posthuman entity would mean skipping those limiting factors that define the less favored aspects of the "human condition", since such entities would not suffer from disease, aging and inevitable death; on the contrary, they would enjoy increased physical capacity and ample freedom as well as enhanced and amplified cognitive capabilities (MIHAILA ET AL., 2021; HJELM, 2020; LYRESKOG & MCKEOWN, 2022).

Practical philosophy is unable to provide answers to various dilemmas that scientists and society may face when it comes to the use of bioenhancement technologies (TEREC, 2021). The transhumanist philosophy has basic principles such as the acceptance of a technoscientific future for humanity; the expansion of human potential to overcome problems that generate involuntary suffering (aging and disabilities); prevention of the misuse of technology; mitigating and reducing possible risks and improving the means for the preservation of life; generation of public policies with a moral vision of responsibility and respect for future generations; open defense of the welfare of sentient beings (including artificial intelligence) (GAMA & DE MATTOS, 2020; POSTIGO, 2021). It is a very intriguing fact that several philosophers who were involved in bioethical debates, in recent years have shown a marked interest in transhumanism; such as the case of John Harris or Allen Buchanan, both very involved in purely bioethical issues such as abortion, use of stem cells or patient autonomy, have turned to transhumanist considerations, publishing outstanding works in this area (HOLUB, 2020).

The defenders of transhumanism, as a philosophical movement supported by science and biotechnology, defend the use of technology to improve the physical, intellectual, emotional and moral human condition; In short, the life of individuals, increasing longevity, mood and cognitive capacities, among other things, since in the transhumanist conception, the end of humanity is inevitable if we do not tend to adopt the developments of science and technology, which would avoid such an outcome (BORBÓN ET AL., 2021; MALAPI, 2021; GAMA & DE MATTOS, 2020; IENCA & ANDORNO, 2017).





Transhumanists are also concerned about the end of human life since overcoming such dilemma becomes one of their main goals (HOLUB, 2020; POSTIGO, 2021).

The importance and topicality of transhumanism implies the use of contemporary technological sciences to capitalize on human existence by enhancing the spectrum of human abilities, while forcing respect for reason and science (MIHAILA ET AL., 2021). Transhumanism tends to stand out as a political-ideological current due to the novelty of its emergence, attracting a large number of individuals who hope to surpass their bodily and mental biological limits, as is the case of people with disabilities, with diseases that generate suffering and scientists who seek to go beyond the limits of biotechnology applied to human beings (GAMA & DE MATTOS, 2020; LLANO, 2018).

1.4 Revolution from a transhumanist perspective: neuro-rights: a new category of human rights?

The continuous advance of neurotechnological sciences has led contemporary society to a scenario in which a transhumanist future can be envisioned and, gradually and eventually, a posthuman condition (BORBÓN ET AL., 2021). In this regard, ARAUJO (2022) mentioned that part of these advances claim a place in the field of the Administration of Justice due to the positive advantages of contribution in various legal aspects associated with criminal conduct and the weighing of certain personal evidentiary means. Several scientific researches have highlighted the existence of a neurobiological basis regarding the appearance and development of violence, which has generated a growing interest on the part of the judicial system to use the results derived from Neurosciences for the regulation of norms, especially in the criminal field (MOYA ET AL., 2017; ARAUJO, 2022).

Certain innovative proposals that have been contributed by Neurolaw, such as the use of neuropsychological and neuroimaging evaluations, have become increasingly useful in the field of the justice system and law. For example, ARAUJO (2022) mentions that Neurolaw has had great influence in the case of judicial sentences based on neuroscientific evidence.

In 2017 an article was published in the journal Nature by Rafael Yuste and Sara Goering about neuro-rights and their possible ethical implications on the field of





neurotechnology, that although such technology offered the promising potential for the treatment of neurological diseases and therefore improve the quality of life of patients with such conditions; they also revealed the negative side that the development of the same could increase disproportionately social inequalities, corporate profit to the detriment of less favored groups. In view of the above, these researchers suggested taking into account four ethical priorities: privacy and consent, identity, augmentation and bias, since the aim is to protect the psyche (psychic integrity) and the ability to choose our actions, intrinsic aspects that should be protected as elementary human rights or neuro-rights and that should also be incorporated into international treaties such as the universal declaration of human rights (BORBÓN ET AL., 2020; YUSTE ET AL., 2017).

Within Columbia University, the NeuroRights Initiative on the debate about the interaction of human beings with technological advances was conceived as a pressing need that seeks to regulate advances in neurotechnology (BORBÓN ET AL., 2021).

Faced with the constant challenges generated by the advance of neurotechnologies with respect to bioethics, biopolitics, deontology and law, researchers have found it necessary to devise a new category of human rights: neurorights (BORBÓN ET AL., 2020).

The constant techno-scientific progress on the role of the human brain has had an enormous influence on the legal field, in terms of scientific study, the ability to understand and comprehend how the human brain works, has begun to have a great influence on the legal dogmatic field in criminal matters, especially in the principle of guilt, in the research on the determination of neurobiological factors that can influence the legal and judicial field (ARAUJO, 2022). But not everything is positive in this regard, since CASTILLO (2020) stated that the application of neurolaw could be sensitive to have negative effects or threat to human rights.

The ethical concerns of neurotechnological advancement have long been discussed in neuroethics, until 2017 when professors Marcello Ienca and Roberto Andorno laid the foundations of neurolaw in the face of the onerous inadequacy to respond to such emerging challenges, for which they have proposed four new human rights: the right to cognitive freedom, the right to mental privacy, the right to mental integrity, and the right to psychological continuity (IENCA & ANDORNO, 2017).





A delicate aspect to bear in mind regarding the development of neuroscience and its contribution to law is that it could undermine the philosophical basis that for centuries has sustained the system of criminal-legal imputation, on the truth that individuals enjoy the freedom to decide, i.e. free will, considered as a *sine qua non* condition for a person to be found guilty of having committed a criminal conduct. Neurosciences tend to prove that such free will is erroneous and that people are not as free as they think they are, and that this would underhandedly violate the well-known principle of self-determination of will, which is the basis of law, a fact that necessarily leads us to rethink the most fundamental questions of law (CASTILLA, 2020; ARAUJO, 2022).

CONCLUSIONS

Transhumanism has been conceived as a movement of intellectual and cultural character that mainly supports the possibility and convenience of improving the human condition through the development and use of novel technologies to eradicate defects such as aging, generating great improvements in the intellectual, physical and psychological capacity of the individual.

It is due to the imperfection of humanity that the desire to transcend this state and move towards possible biophysical and psychic improvements is born. Therefore, a transhuman could be understood as a human entity improved in its biophysical and psychic conditions (through genetic engineering, nanotechnology, pharmacogenomics, among others); and, on the other hand, a posthuman would be a notably different entity that would enjoy capabilities above the human and transhuman. But even the definitions and distinctions between the two categories are not yet fully dispelled.

Transhumanism is now being incorporated into mass culture as an increasing number of scientists begin to take seriously the diverse range of possibilities it encompasses. In the light of technological developments, there is an urgent need for principled ethics and a set of rules that effectively responds to the demands of development and is aligned with the moral sense of scientists working in the various branches of biotechnology, especially as they relate to the processes of improvement and





innovation. If such principles are well thought out in their full dimension, one would be able to anticipate and assume the possible consequences of their results on society, with the minimum impact, without violating basic ethical principles. Otherwise, it is legitimate to prohibit them.

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