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Genetic Engineering between Promises and Dilemmas: A Philosophical Debate?

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Abstract

Human genetic engineering can be considered as one of the great transformations brought about by the discoveries of genetics. The possibility of modifying the human genome or carrying out investigations and changes in the hereditary genetic heritage, reveals, simultaneously, promises and dilemmas that go beyond private life, affecting Human Rights. So, based on conflicts of interest related to genetic manipulation techniques, philosophy was sought, especially with the theoretical contribution of Michael Sandel, through a brief bibliographic review, the justifications about support or opposition in proceeding with engineering. Genetics, aiming to understand the positions and interests, to find the best ethical answer to this ambivalence.

Keywords: Genetic Engineering; Genetical Enhancement; Eugenics; Philosophical Ethics

Introduction

This article deals with human genetic engineering, that is, techniques of genetic editing that allow the modification of the human genome or the investigation and alteration of hereditary genes, producing new organisms, and their contrary and favorable arguments in an ethical-philosophical perspective, especially from the bibliographical cut and review of authors like Michael Sandel, Ronald Dworkin and Jürgen Habermas.

Initially, it corroborates with Michael Sandel when he affirms that the discoveries of genetics present, simultaneously, a character of promise and dilemma [1], because they propose solutions to problems, until then, insurmountable, for example, through genetic medicine, tests predictive genes, gene cell therapy, among others, aiming at the prevention and cure of congenital or non-congenital diseases. However, characterizing the dilemmas of these discoveries, among other examples, we highlight the claim to dominion over human life, revealed through designer parents who wish to make genetic improvements in their children, to transform them into products of their desires, choosing sex, physical, cognitive characteristics etc.

Given the problem, the questions regarding the concession of this bio-power suggest a strict state intervention, in order to avoid abuses to dignity and Human Rights. Therefore, the objective is to promote the ethical-philosophical debate as a conduit for understanding issues related to the protection of human rights in their individualities and personalities, in the face of technical-scientific progress and new human and social needs.

The Old and the New Eugenics

Through factual analysis and theoretical background, the philosopher Michael Sandel begins his book, "Against perfection: ethics in the age of genetic engineering" (2018), questioning: even without the involvement of apparent losses to being, there is no certain persistent moral malaise and uneasiness regarding the possibilities, provided by

human genetic manipulation, of "ordering a child with specific genetic traits?" [1].

Continuing his reasoning, Sandel uses ethical and moral questions about genetic improvement and its effects, leading the debate from the perspective of the "breeding ethics" and the possible consequences of the indiscriminate use of bio-power, for example, the misrepresentation of the "talent ethics", presented as one of the consequences of "children designed by designer parents", that is, parents who defend the use of bioengineering, as a way of shaping their children's physical and/or cognitive characteristics [2].

When answering the initial question, he states that "the parents' over-performance, so familiar in our times, represents an anxious excess of mastery and domination that neglects the sense of the gift of life. This disturbingly brings him closer to eugenics [1]".

Based on theory and historical landmarks, Sandel characterizes and distinguishes the "old and the new eugenics", so that eugenics, in its primary conception, was originated by Francis Galton (cousin of Charles Darwin), in 1883, conferring to the semantic charge of "well-born", followed by popular movements in the USA, at the beginning of the century. XX, who defended the eugenic ideals of qualified reproduction, through judicious marriages.

Subsequently, there was a hardening of these movements, leading them to demand the coercive force of the State to create laws that would prevent the reproduction of people considered "genetically undesirable" and, even, their compulsory sterilization. These ideals conquered Germany, when, then, in 1933, Adolf Hitler assumes power and, during the period of Nazi domination, promotes the most severe face of eugenics, causing in addition to compulsory sterilizations, mass murder and genocide [1].

After this short and ominous trajectory, the eugenic movement was abandoned, at least in its absolute character, applied by/with force of the State. However, debates such as breeding and genetic engineering lead to new ethical discussions about the domination ideology applied in a private environment and its consequences, continuing the hypotheses of "free market eugenics" and "liberal eugenics" [1].

In this sense, he considers that the "free market eugenics" can be contemplated from non-coercive, but inductive and subsidized/remunerated state practices, like the Prime Minister of Singapore, Lee Kuan Yew, who, in 1980, encouraged people from higher education level to get married and have children, but, in return, offered the amount of US $4 thousand for women with low education and income, under the condition of proceeding with voluntary sterilization.

It can also be glimpsed from the egg and sperm trade according to the physical and cognitive characteristics desired by future parents, questioning, to what extent this mercantilization would be reprehensible, so that no one is obliged to sell, nor to buy.

However, it appears that, through these practices, the old eugenic desires for dominance, control, and "human evolution", find in the market and consumerism the purpose of transforming "children into products of a deliberately selected project" [1].

Liberal Eugenics and the Philosophical Debate

The so-called "liberal eugenics" can be understood through the prism of contractual liberalism or autonomy of the will in a particular ambit, that is, in this case, the act presupposes the will.

In the "era of the genome", considering the technical-scientific advances in breeding and genetic engineering, the eugenic discourse is once again aroused and, among critics and defenders, finds support in names like John Rawls, who, in his classic "A theory of Justice" (2008), based on the premise of the social contract and the principles of maximizing freedom and difference, corroborates the idea that people are free to wake up and promote the "good of their successors", because "this allows each one can pursue his favorite life plan. In the original position, then, the parties want to guarantee for the descendants the best genetic endowment" [3].

Likewise, the philosopher of law Ronald Dworkin, defends the use of genetic engineering, through the liberal version of eugenics, as a way to guarantee future generations a longer life, full of talents and achievements. Understanding that no life should be wasted, he argues that:
[...] if playing with God means striving to improve what God, deliberately, or nature, in a blind manner, has developed over the ages, the first principle of ethical individualism orders this struggle, and its second principle forbids, in the absence of positive signs of danger, embarrass scientists and doctors who offer to lead it [4].

However, constituting the criticisms, the political philosopher of Germany, Jürgen Habermas, in his book "The Future of Human Nature. On the way to liberal eugenics?" (2004), opposes liberal eugenics, based on the thesis of consent. Thus, it ponders on "positive eugenics" (considered unjustified) and "negative eugenics" (as it seems to be justified) [5], considering this last admissible hypothesis, as

it aims to promote the cure and / or prevent serious genetic diseases of the future to be and, thus, it is understood that it is a consent that cannot yet be obtained.

However, in relation to the selection and genetic improvement of a child (positive eugenics), he argues that it is objectionable, as it violates the liberal principles of autonomy, since the individual could not understand himself as the author of his own history; and equality, because the notion of symmetry between human beings would be distorted over the generations.

So, the construction of the syllogism proposed by the philosopher points to the character of domination by interfering in the personality and, consequently, the reification of the human being:
For, when deciding on their genetic program, the parents formulated intentions that later will turn into expectations about the child, without, however, granting the recipient, the child, the possibility of a reconsideration. The programming intentions of ambitious parents and effects on experiences, or also those just concerned, have the status characteristic of a unilateral and unappeasable expectation. The intentions that have actually been transformed appear in the life story of the affected person as a normal component of interactions, but escape the conditions of reciprocity of communicative understanding. The parents made the decision, without supposing a consensus and only according to their own preferences, as if they had something [5].

From these ambivalent arguments, it is evident the need to think about the limits to be imposed on new technologies, including human genetic engineering, through the interdisciplinary, critical and teleological debate, justifying the need for a new ethical responsibility in the face of advances technologies and their new paradigms that, to some extent, threaten present and future generations [6].

In this sense, the social philosopher Francis Fukuyama, states that "the more science tells us about human nature, the more implications there are for human rights and, therefore, for the planning of institutions and policies that protect them" [7]. Therefore, the plans related to the protection of nature and human species, notably Instrumentalized by law, must accompany all technical-scientific progress, in order to supply needs and vulnerabilities, imposing limits and political solutions with respect to the foundation of human rights: human with dignity.

Conclusion

Human genetic engineering has an evolutionary character, presenting itself as an effective possibility for the prevention and cure of congenital diseases or not. However, there is a risk of improper applications, violating the "sacredness of life" and Human Rights related to the topic.

Because of this, the need to weigh the benefits and harms becomes relevant to favoring or disadvantaging the application of genetic editing, not only taking into account the individualized biological effects, but considering a broad approach, including the ethical-social impact that the decision can entail, respecting the individuality of being and its dignity [8].

Thus, there are reasons for the use, or not, of genetic engineering, in addition to the prevention and cure of diseases, but as a way of fulfilling the wishes of parents in their sons and daughters. However, between the choices of genetic endowments and the alteration of their genetic inheritance, there is a future subject of personality and rights that need to be protected, as a way to protect the human species itself from the risks arising from the desire for evolution without ethical and humanitarian considerations.

Therefore, the ethical-philosophical arguments, briefly worked on in this article, show the need to analyze ambivalence from the perspective of distributive, intergenerational, equitable and pluralistic justice, basic premises of contemporary bioethics. Aiming at using the techniques in an ethical, impartial and safe way, requiring a specific analysis for the feasibility of carrying out scientific techniques, in view of the clinical case and its final destination.

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