

JÜRGEN HABERMAS AND HUMAN EMBRYONIC GENE EDITING: AN ETHICAL INQUIRY

By

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Abstract:

Controversies continue to trail the morality of gene-editing especially as it affects the ontological constitution of the human person. While the gains of bio-medical engineering and technology to medical practice with regard to therapeutic considerations have not been disputed, a class of moralists think that gene-editing on the human embryo is unethical irrespective of the reasons. This paper therefore examines the main line of defense against manipulating the human embryo, bringing notable arguments from bioethics but situating within its argumentative strengths the defense that Jurgen Habermas gives to human dignity and especially within the context of embryonic gene-editing. The objectives of this paper include: highlighting the strengths of ethical arguments against human embryo gene-editing; establishing the traditional and intellectual defenses against tempering with human life from the Habermasian context and pointing out the possible problems the uncontrolled activities of human embryonic gene-editing could cause to life and human dignity if nothing is done about it. Thus, this study is critical as it explores gene-editing and the actual status of the human embryo after it must have undergone laboratory manipulations, but also prescriptive as it explores typical ethical insights on the moral integrity of the human person within the fields of biogenetics.

Keywords: Embryonic, Gene-editing, Human, Dignity, CRISPR-Cas9 and DNA.

Introduction:

Gene editing refers to a set of molecular techniques that allow precise modification of an organism's DNA to add, delete, or alter genetic material. The development of CRISPR–Cas9 technology in 2012 revolutionized this field by making genome modification faster, cheaper, and more accurate¹. These tools have found applications in medicine, agriculture, and environmental science, raising both hope and ethical concerns in our world today, but also for the generations yet unborn. However, the impacts of gene editing in contemporary society are remarkable. Gene editing technologies have transformed biomedicine by enabling potential cures for inherited diseases such as sickle cell anemia, cystic fibrosis, and muscular dystrophy. Furthermore, there are the clinical successes, such as the use of CRISPR-based therapy for beta-thalassemia and sickle cell disease, which demonstrate tangible therapeutic benefits.² The gains of gene editing can also be seen in the field of agriculture, where it has been used and is still used to crop yield, enhance pest resistance, and ensure nutritional quality without introducing foreign DNA, distinguishing it from traditional GMOs.³ Edited crops like drought-tolerant maize and disease-resistant rice exemplify sustainable farming practices.⁴ Gene editing technologies such as gene drives are also being explored to control vectors like mosquitoes that transmit malaria, potentially saving millions of lives.

There are quite a number of motivating factors which have fueled the need and applications of gene editing within contemporary society. They include: Medical advancement with specific reference to treating or eliminating genetic disorders⁵; and improving Agricultural products to enhance food security through resilient crops⁶. Others are to gain environmental control in order to mitigate diseases through vector control strategies⁷; and the typical scientific interest to further understand gene function and biological mechanisms⁸. There are also economic thrusts to why gene editing is increasingly being embraced in our world today. Economically, therefore, as biotechnology companies and research institutions seek to develop marketable therapies and agricultural innovations.⁹ Gene editing continue to gain admiration and acceptance. And so, gene editing persists because of its unparalleled precision, scientific potential, and societal demand for innovation. Despite ethical controversies, therefore, global health challenges like genetic diseases, food insecurity, and environmental degradation (with the persistent clamor for sustainability) create ongoing motivation to refine and regulate the use of gene editing responsibly.¹⁰ Such feats like that recorded in the CRISPR Therapeutics & Vertex trial (2020), the first successful CRISPR clinical trial cured patients with sickle cell anemia and beta-thalassemia, marking a milestone in therapeutic gene editing.¹¹ In the field of agriculture, there are also the breakthroughs recorded by companies such as Calyxt which developed gene-edited soybean oil with improved fatty acid profiles, showcasing economic viability of crop editing.¹² In most recent times, the decreasing cost and increasing accessibility of CRISPR tools have democratized research, making gene editing integral to modern biology.¹³

However, controversies abound. The most contentious issue among them is the notion and practice of germline editing, which alters heritable DNA and raises moral questions about “designer babies” and human enhancement.¹⁴ Due to the free-handedness of biogenetic engineering targets in general and human germline editing in particular to attain results, there have been off-target mutations and unintended genetic consequences. A good example is the case of “He Jiankui” and the “CRISPR babies” in 2018. The Chinese scientist He Jiankui edited the CCR5 gene in human embryos to confer resistance to HIV, resulting in the birth of twin girls. This unapproved and unethical experiment provoked international condemnation and led to He's imprisonment.¹⁵ This case and of course others similar to it remain significant challenges, especially in clinical applications.¹⁶ Again, there is fear that the high costs of therapies may exacerbate global health inequalities, limiting access to wealthy nations or individuals.¹⁷ Another significant challenge is the disparity in different countries leading to pluralism of ethical stances on same issues. Different countries maintain diverse regulatory stances, from permissive (e.g. the U.S. and China) to restrictive (e.g. the E.U.), leading to global ethical tension.¹⁸

Nevertheless, gene editing stands as one of the most transformative scientific innovations of the 21st century. While its power to reshape life itself invites ethical and social scrutiny, its potential to alleviate suffering, enhance food security, and advance human knowledge ensures its continued development. The challenge for society is not whether gene editing will persist, but how it can be ethically and safely governed for the collective good.

In this paper, therefore, the focus is streamlined on the ethical question of the place of human dignity in a promising biomedical course on the human genome and on embryonic

gene-editing in particular. In this case, the views of a few selected thinkers on human dignity amidst contemporary biogenetic engineering and biotechnological feats are critically reviewed in order to come up with a credible assessment of the matter. The Habermasian thesis on human dignity however is the theoretical support under which this paper draws its logic of inquiry.

Jurgen Habermas and Human Dignity:

Within his arguments on human nature as outlined in the discourse on species ethics, Habermas buttresses the importance of the preservation of human nature through protecting the essential characteristics of the human species and on preserving his dignity; respect for the intrinsic value of human embodiment as well as acknowledgement of human interdependence and the need to check the long-term after-effects of technological interventions on the human species and other potential impacts.¹⁹ However, the arguments he brings to bear on the defense he makes on “human dignity” can be best understood *via* two perspectives. Firstly, it draws strength from his general philosophical framework in which he recognizes human beings as being endowed with the natural powers of reasoning and the ability to take charge of their lives through discourse and consensus for the good of all, and in setting out moral principles upon which their lifestyles should be ordered. Secondly, Habermas relates the issue of human dignity closely to the concept of human rights. To buttress the later, he holds:

Human rights are developed in response to specific violations of human dignity, and can therefore be conceived as specifications of human dignity, their moral source. This internal relationship explains the moral content and moreover the distinguishing feature of human rights: they are designed for an effective implantation of the core moral values of an egalitarian universalism in terms of coercive law.²⁰

In the above cited article, Habermas makes a recourse to the *Universal Declaration of Human Rights in 1948*, as one well pronounced and well acknowledged global affirmation of the unique relationship between Human Dignity and Human Rights. He specifically made special reference to the Article 1 of the Declaration which categorically states that: “All human beings are born free and equal in dignity and rights”. In his words, the preamble to the declaration also defends this course, making a necessary link between human dignity and human rights. In his words, ‘it reaffirms the “faith in fundamental human rights, in the dignity and worth of the human person.”’ In essence, therefore, Habermas attempted a modest relationship between the concept of human rights and the concept of human dignity, thereby giving human dignity a foundational thrust that pulls from the original conceptions of human rights. The two are inevitably tied to each other for it is within the ambience of fundamental human rights that the concept of human dignity draws its moral strengths.

From another front, Habermas makes a case for the existential challenges to human dignity in a simple but realist critique of Kierkegaard in the sense that his post-metaphysical ethics allows for one to articulate between a successful life and

unsuccessful life in his *being-able-to-be-oneself*. This for Habermas promotes a formal description of human existence and has reasonable normative content²¹, but it only judges the existential mode of human life and human nature. It does not explain “the specific orientation of individual life-projects and particular forms of life”²² thereby demonstrating its limitations with mind-bugging questions on “species ethics”.

Human Embryonic Gene Editing: Meanings, Applications and Implications

In clear terms, “embryonic gene editing” is the alteration or modification of genetic material in the embryo at the early stages of a human or animal's development. Human embryonic gene editing therefore directly refers to an act of manipulation of the genetic content of the human embryo for reasons that range from therapeutic concerns like: prevention of hereditary diseases (sickle cell anaemia; huntington's disease) to other interests as: enhancing embryo's viability in assisted reproduction, embryonic development for research purposes and building more disease-resistant genes in future humans.²³ Technically, the acknowledged gene-editing technologies used for these purposes are: the CRISPR-Cas9 which could cut and replace DNA sequences; TALENS (Transcription Activator-Like Effect Nucleases), used to bind particular DNA sites and also to introduce double-stranded breaks for targeted modifications, and ZFNs (Zinc Finger Nucleases) also used for binding together specific DNA sequences.²⁴ Today, the CRISPR-Cas9 is most recent and promises more efficiency in the editing process and so is widely acknowledged and used. Since the breakthroughs in genetic engineering and specifically gene-editing, its application to humans in research and medicine have been met with mixed reactions from across the world, but with careful suspicion from bioethicists. While it looks promising to some especially from its contributions to assisted reproduction and efficacy in therapy, intellectuals and moralists are divided on the moral implications its application on humans have on the human person and on human dignity. Thus, the human genome editing since its inception has raised questions on its social, legal and ethical consequences on human life and human dignity.²⁵ For, unlike somatic gene editing which only affects the individual, embryonic or germline editing can have real effects on future generations since the changes it makes can be inherited.²⁶ This therefore poses serious challenges to humankind and the natural order.

To address the fears that genetic engineering on the human embryo has significant implications for the unborn child, in contemporary bioethics, therefore, the notion of human dignity is used to evaluate whether certain technological or medical interventions respect the moral status of individuals. Leon Kass in *Life, Liberty, and the Defense of Dignity: The Challenge for Bioethics* argue that human dignity is deeply connected to the natural limitations of the human condition, including mortality, vulnerability, and the fact that humans are both physical and spiritual beings. This spiritual dimension has close ties with the conception, in which sense the ontological concept of ensoulment also takes place. In like manner, therefore, Kass goes on to emphasize that attempts to alter or enhance the human condition through biogenetic engineering threaten to undermine this inherent dignity by reducing individuals to mere objects of manipulation.²⁷ In a similar line of reasoning, James Childress views dignity as foundational to bioethical principles such as respect for persons, arguing that technological interventions must preserve the autonomy and moral integrity of individuals.²⁸ Re-enforcing the argument of Kass on human dignity, Fukuyama commends Kass for presenting “a compelling case for the

importance of moral and intellectual excellence as essential components of human dignity, warning against the dangers of a purely technological approach to human life."²⁹ As a matter of moral and existential relevance, therefore, Kass's perspective underscores the need to balance technological progress with a respect for the moral dimensions of human dignity. To crown the force of Kass defense of the notion of human dignity amidst the exploits of bio-medical technologies and engineering, one observes that Kass's conception of human dignity is closely linked to the idea of the sacredness of life. He thus argues that human life is not simply a biological fact but carries a moral significance that must be respected. This idea of life's sacredness forms the foundation for many of his arguments against biotechnological manipulation and euthanasia, as he believes that such practices risk undermining the dignity that comes from recognizing the moral value of human life. For Kass therefore, "to tamper with the fundamental processes of life is to fail to appreciate the sacredness of human existence and the dignity that comes with it".³⁰ Kass maintains that human dignity is not simply a matter of individual autonomy or personal choice but is tied to the broader moral and sacred dimensions of life. This perspective leads him to advocate for bioethics of restraint, where human dignity is preserved by acknowledging the limits of what should be done in the name of scientific progress. In general, Kass's views emphasizes the moral responsibility to protect the dignity of human life, even in the face of technological advances that may promise enhanced control over life and death.

At this point in time, re-evaluating the stance of Immanuel Kant on human dignity is paramount. For, it serves as one of the most profound contributions to moral philosophy. In his ethical framework, human dignity is fundamentally tied to the inherent worth of human beings as rational and autonomous agents. This notion forms the bedrock of Kant's deontological ethics, where morality is grounded in universal principles rather than the subjective inclinations of individuals and cultural groups. At the heart of Kant's view on human dignity is the concept of moral autonomy. In this sense, moral autonomy refers to the capacity of individuals to legislate their own moral laws through reason. This autonomy is not merely the ability to act freely, but the ability to act in accordance with moral laws that one has given oneself. In Kant's view, this self-legislation reflects human beings' unique ability to act according to rational principles, rather than being driven solely by desires or external influences. For Kant, autonomy is what gives human beings their intrinsic value or dignity. When situated within the practice of embryonic gene-editing, one finds the fetus being denied of its right to exercise this autonomy by being interfere with in the course of the gene-editing for whatever purpose. This could lead to serious ontological questions much later in life, especially in areas where personality traits were tampered with. For Kant, it is this capacity (autonomy) to act out of duty to the moral law, rather than based on instinct, impulse, or external coercion, that distinguishes humans from non-rational beings, such as animals, and even from inanimate objects. This inherent dignity commands respect not just from others but also from oneself. In his specific words, therefore, Kant holds that: "Autonomy is thus the ground of the dignity of human nature and of every rational nature".³¹ In practical terms, then, this means that every person is morally bound to respect the dignity of others, including the unborn child (at whatever stage of development it finds itself) since all rational agents possess this capacity for autonomy and self-determination. Kant connects human dignity directly to

rationality. In his view, rationality is what gives humans the ability to discern moral duties and act upon them. Rationality allows us to recognize moral laws and act in accordance with the categorical imperative, which is the principle that we should act only according to maxims that can be universally applied. For Kant, the categorical imperative has several formulations, one of which directly ties to human dignity: "Act in such a way that you treat humanity, whether in your own person or in the person of another, always at the same time as an end, and never merely as a means".³² This formulation captures the essence of Kantian notion of human dignity. Every human being, because of their capacity for rationality and autonomy, is an end in oneself. So, people must be treated with respect and never as mere tools to achieve another's goals, not even those of the parents. To treat someone as a means is to violate their dignity, because it denies their inherent worth as a rational, autonomous agent. Ordinarily, this line of argument provokes questions such as 'why allow a child to be born with detectable disabilities, which could be corrected through gene-editing?' Is it not rational to distinguish between the sphere of gene-editing as therapy and gene-editing for purely aesthetic and other selfish purposes?' James Childress, a leading bioethicist, while concerned with the ethical implications of biogenetic engineering and its potential impact on human dignity, advocates for clear ethical guidelines that distinguish between therapeutic uses of genetic engineering and enhancements that risk commodifying human life. In his works, *Principles of Biomedical Ethics* (co-authored with Tom Beauchamp) and *Practical Reasoning in Bioethics* (1997), he explores the tension between technological advancement and the need to preserve moral values like human dignity, autonomy, and justice. Childress's approach to bioethics is based on a principle-based framework that emphasizes respect for persons, which closely relates to his conception of human dignity. In his argument, he categorically holds that biogenetic engineering, while offering potential benefits, poses significant ethical challenges that must be carefully addressed to safeguard the intrinsic worth and dignity of individuals. Central to Childress's ethical framework is the principle of respect for persons, which he interprets as the foundation of human dignity. He argues that human dignity is rooted in the recognition of each individual as an autonomous moral agent deserving of respect. Thus, in *Principles of Biomedical Ethics*, Childress and Beauchamp write, "Respect for human dignity entails treating individuals as ends in themselves and not merely as means to an end".³³ This principle serves as the ethical foundation for assessing the moral implications of biogenetic engineering. Childress is concerned that biogenetic engineering may undermine human dignity by treating individuals as objects of manipulation rather than as autonomous beings with inherent worth. He emphasizes that any technological intervention, including genetic engineering, must be conducted with respect for the autonomy and moral status of individuals. This respect for dignity requires ensuring that individuals are not reduced to mere biological material to be engineered or enhanced according to societal preferences or market demands. Faden expands on Childress's point, noting that "Childress's emphasis on respect for persons highlights the need for biogenetic technologies to be carefully regulated to avoid the commodification of human life."³⁴ For Childress, safeguarding human dignity in the face of biogenetic engineering requires a careful balance between innovation and ethical restraint. Specifically, Childress is concerned with establishing ethical boundaries in the application of biogenetic engineering. He argues that while genetic technologies hold great promise for addressing medical issues, they also raise significant concerns about

enhancement and genetic manipulation that could erode the intrinsic dignity of human beings. In *Practical Reasoning in Bioethics*, Childress warns that "biogenetic engineering should not be used to manipulate or alter human nature in ways that compromise the moral integrity or dignity of individuals".³⁵ It is important to underscore that Childress's concern with enhancement technologies is that they may lead to a society where individuals are valued based on their genetic traits, and not for their being human thereby undermining the moral equality of all human beings. He is particularly wary of genetic interventions that aim to create "designer babies" or to enhance intelligence, physical abilities, or other traits, as these practices could lead to new forms of inequality and discrimination. In furtherance, Childress argues that such uses of biogenetic engineering may violate the principle of justice by exacerbating social divisions and undermining the equal moral status of individuals. Human dignity is best preserved by setting ethical limits on the scope of biogenetic engineering and ensuring that its applications respect the inherent worth of all individuals.

Another key aspect of Childress's approach to biogenetic engineering is his emphasis on autonomy and informed consent. He argues that respect for human dignity requires that individuals have the freedom to make informed decisions about their own genetic makeup and that of their offspring. Childress stresses the importance of informed consent in any biogenetic procedure, writing, "Human dignity requires that individuals be given the opportunity to make informed, autonomous choices about genetic interventions that may affect their identity or the identity of their descendants".³⁶ He contends that any violation of informed consent compromises the dignity of individuals by denying them the right to self-determination. Childress is particularly concerned about the potential for coercion or manipulation in the context of genetic interventions. He warns that individuals may be pressured into undergoing genetic procedures based on social or economic factors, rather than making fully autonomous decisions. For Childress, the ethical use of biogenetic engineering must prioritize the autonomy and dignity of individuals, ensuring that their choices are free from coercion and fully informed. Childress's emphasis on autonomy and consent reinforces his broader concern with protecting human dignity in the face of technological advancements.

Another important addition to autonomy for Childress, is respecting the principle of justice in the ethical application of biogenetic engineering. Childress emphasizes the importance of justice. He argues that human dignity is closely tied to social justice, and that the benefits and burdens of genetic technologies must be distributed equitably. Childress is concerned that unrestricted biogenetic engineering could exacerbate existing inequalities, particularly if access to these technologies is limited to the wealthy or privileged segments of society. He writes, "Human dignity demands that the benefits of biogenetic engineering be distributed in a way that respects the moral equality of all persons and avoids creating new forms of genetic privilege".³⁷ Childress's focus on justice leads him to advocate for regulatory frameworks that ensure equal access to biogenetic technologies and prevent the creation of a genetic underclass. He believes that the dignity of individuals is threatened not only by the misuse of genetic technologies but also by the unequal distribution of their benefits. To preserve human dignity, Childress argues that society must ensure that all individuals have equal access to the potential advantages of genetic medicine, while also safeguarding against the risks of genetic manipulation.

Fukuyama goes on to echo Childress's concerns, noting that "the unequal distribution of genetic technologies could lead to a society where human dignity is compromised by new forms of social stratification and genetic discrimination."³⁸ Childress's emphasis on justice highlights the need for ethical oversight in the development and use of biogenetic engineering to ensure that it serves the common good rather than perpetuating inequality.

In a more streamlined perspective, Childress also addresses the question of human dignity in the context of genetic interventions that involve embryos and reproductive technologies. He is concerned that certain practices, such as preimplantation genetic diagnosis (PGD) and embryo selection, may devalue human life by treating embryos as commodities to be manipulated or discarded. In *Principles of Biomedical Ethics*, Childress and Beauchamp argue, "The dignity of human life, even in its earliest stages, must be respected in any genetic intervention, and the use of embryos solely for instrumental purposes raises serious ethical concerns".³⁹

Jurgen Habermas and Gene Editing

For Habermas, because of the sensitivity of contemporary moral inquiry as demands involvement of "the self-understanding of language-using agents is at stake *in its entirety*, philosophy can no longer avoid taking a substantive position" in bioethical issues.⁴⁰ The problem as Habermas clearly underscores it is that:

It is just this situation that we find ourselves in today. The advance of the biological sciences and development of biotechnologies at the threshold of the new century do not expand familiar possibilities of action, they enable a new type of intervention. What hitherto was "given" as organic nature, and could at most be "bred", now shifts to the realm of artifacts and their production. To the degree that even the human organism is drawn into this sphere of intervention, Helmuth Plessner's phenomenological distinction between "being a body and having a body becomes surprisingly current: the boundary between the nature that we "are" and the organic endowments we "give" to ourselves disappears. As a result, a new kind of self-transformation, one that reaches into the depth of the organic substrate, emerges for the intervening subject.⁴¹

The ethical debate on human gene-editing therefore for Habermas is novel, arising with the increasing advancements in the biological and medical sciences and technologies. Thus, care must be taken in advancing the contemporary moral debates that the trend provokes. In this case, Habermas tends to appreciate certain traditional ethical models on the human person, but recommends that necessary insights and critique, and if possible, new arguments be put on the problem based on novel realities in which the human species confronts in contemporary times.

Going further in his defense of human dignity, as it affects embryonic gene-editing,

Habermas likens the debate to that that emerged on the issue of abortion:

The philosophical dispute over the admissibility of research involving the destruction of embryos and PGD has, to date followed the path of the debate over abortion... The German population, like that of other countries, is split into two camps over this issue. Insofar as the current discussion is determined by the dispute over abortion, the polarization of “pro-life” versus “pro-choice” advocates has focused attention on the moral status of unborn human life.⁴²

Habermas acknowledges the position of the conservatives on the pro-life debate as it affects the field of bio-genetics and biotechnology which holds as unconditional the use of the unborn human for researches of any sort such that permits termination of life. In his critical nature, Habermas tries to be realistic in his defense of human dignity, exploring several theories in objective terms, reviewing in objective terms their unique rational strengths on the concept of human dignity amidst bio-medical engineering and biotechnology. He champions the need for robust self-understanding and modest review of the notion of human freedom in contemporary times as necessary in addressing the issue of human dignity in contemporary bio-medical research, technology and practices. For him therefore:

The self-understanding of this subject now determines how one wants to use the opportunities opened up with this new scope for decision - to proceed *autonomously* according to the standards governing the normative deliberations that enter into democratic will formation, or to proceed *arbitrarily* according to the subjective preferences whose satisfaction depends on the market. In putting the question this way, I am not taking the attitude of a cultural critic opposed to welcome advances of scientific knowledge. Rather, I am simply asking whether, and if so how, the implementation of these achievements affects our self-understanding as responsible agents. Do we want to treat the categorically new possibility of intervening in the human genome as an increase in freedom that requires normative *regulation* - or rather as self-empowerment for transformations that depend simply on our preferences and do not require any *self-limitation*? Even if this fundamental question is decided in favor of the first alternative, one can dispute the boundaries of a negative eugenics that would aim at overcoming unmistakable evils.

Here I will only point out one aspect of the underlying problem - the challenge posed by the modern understanding of freedom.⁴³

Here, Habermas shows real concerns on the challenges that the human genome engineering poses for the moral society, but also for the individual. It questions the very essence of human freedom and brings out the controversy between holding unto a societal or government control of the exercise of freedom on the one hand and the take of the extreme individualists on allowing everyone to take charge of what one does with one's life without any form of interference in any way.

Summary and Conclusion.

The concerns that embryonic gene-editing is a serious ethical attack on human dignity, and also an anomaly to the natural course of human development from conception to birth remain existentially viable. Human dignity refers to the inherent and inalienable worth that each person possesses simply by virtue of being human. It is foundational to both ethical theory and human rights discourse. In addressing the moral question on whether it can be justified to use humans as means to attain some purported 'lofty-ends' has remained a theme for moral debate down the ages. Between two lines of arguments, Kant in representing the traditional ethical stance on man, as expressed in the *Groundwork of the Metaphysics of Morals*, which holds that individuals should never be treated as mere means to an end for rationality and moral agency in humans is what grants them dignity and thus entitles them to moral and ethical consideration.⁴⁴ From the more liberal perspective, another line of reasoning has that embryonic gene editing is not just justifiable for therapeutic ends, but also to improve the quality of life of the unborn child by bestowing on him or her those qualities that the parents wished for. This latter position leads one to discuss the issue of embryonic gene-editing, what it entails and how it affects human dignity as alleged by some proponents of bioethics.

Conclusively, therefore while the gains of the human genome technology and gene-editing for therapeutic reasons abounds, moralists are however circumspect on ethical implications that such technologies could have for humans and especially on the dignity of man who ordinarily should be treated as objects or means to attain some personal or selfish end. In as much as controversies continue to trail the notion of embryonic gene-editing, it is important to underscore the line of reasoning of those moralists who defend the course of human dignity as against uncensored and unethical use of gene editing for other objectives other than for therapeutic reasons.

Among the philosophers noted in this paper, Habermas spells out in an exceptional way the link between human rights and human dignity which must be respected, but also warns that in contemporary bio-medical practice, care must be taken not to interfere with the ontological structure of the human species as designed by nature and so not disrupt the natural existing course of human development through time begging the Kierkegaard's position on *being-onto-becoming* which remains an inherent right of all humans. The unborn child therefore should not be denied this right no matter the gains and needs for gene-editing as the case may be. In sum, therefore, except for strict therapeutic needs which should not affect major genetic constitutions, the human embryo should on no account be subject to gene-editing as this practice goes against the inherent dignity of man.

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