

The Future of Ethics in Light of Contemporary Scientific and Technological Advancement: Bioethics as a Model

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Abstract:

The rapid transformations in contemporary life have necessitated new ethical and moral frameworks, particularly in the context of human relationships with others and the environment. The dominance of science and technology, especially during the 20th century, has profoundly influenced human existence, introducing innovations like genetic engineering. This evolution calls for updated ethical approaches that redefine value systems and establish a cohesive ethical framework to navigate emerging medical and biological challenges.

Modern moral reasoning faces significant pressure due to advancements in biomedical practices, which have sparked philosophical and ethical dilemmas. These dilemmas often oscillate between permissibility and prohibition, leading to a new moral discourse that is both existential and humanistic. Issues

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such as gene manipulation, surrogacy, euthanasia, and gender transition exemplify the ethical quandaries arising from technological misuse.

In this context, bioethics emerges as a critical discourse, focusing on the implications of scientific advancements in medicine and biology. It serves as a vital inquiry into the ethical responsibilities of contemporary humans and the technologies they develop, emphasizing the need to balance innovation with moral integrity.

Keywords:

Bioethics; Ethical frameworks; Genetic engineering; Biomedical practices; Moral discourse; Contemporary challenges.

الملخص:

فرضت التحولات التي شهدتها الحياة المعاصرة واقعاً جديداً أثر على معايير الكائنات الحية، وخاصة الإنسان، مما يتطلب توصيات أخلاقية تهدف إلى الحفاظ على توازن العلاقات بين الأفراد وبيئتهم. من أبرز التحولات التي عاشها القرن العشرين وتستمر في القرن الواحد والعشرين هي الهيمنة المتزايدة للعلم والتقنية، وخاصة الثورة البيولوجية التي أدت إلى ابتكارات علاجية مثل الهندسة الوراثية.

هذه التطورات استدعت ظهور مقاربات أخلاقية جديدة تهدف إلى تجديد القيم الإنسانية وضبط الحقوق والمسؤوليات، وتطوير إطار موحد من القيم الأخلاقية لمواجهة القضايا المستجدة في المجالات الطبية والبيولوجية. لقد وضعت الممارسات البيوطبية البشرية أمام اختبارات أخلاقية معقدة، مما أثار إشكاليات فلسفية ودينية تتراوح بين الإباحة والتحريم. أدت هذه الديناميكيات إلى نشوء خطاب أخلاقي جديد يركز على العواقب المترتبة عن الطب والتقنية، حيث تم استغلال التكنولوجيا بطرق غير أخلاقية، مثل تصنيع الفيروسات والتلاعب بالجينات. في هذا السياق، ظهرت البيوتيقا كخطاب أخلاقي معاصر يتناول نتائج العلم والتقنية في مجالات الطب وعلم الأحياء، ويعكس التحديات الأخلاقية التي تواجه الإنسان المعاصر.

الكلمات المفتاحية: الأخلاق، البيولوجيا، الإنسان المعاصر،

التقدم العلمي، التقنية، البيوتيقا.

Introduction:

The scientific and technological evolution has produced new results and issues in the study of living organisms, particularly concerning humans. Practices and experiments have emerged, raising questions and presenting many points of inquiry, especially regarding the human body. This situation urgently necessitates that these profound transformations be accompanied by ethical recommendations and legal regulations aimed at maintaining the balance of relationships between this being and its peers, as well as its environment, while regulating medical experiments and interventions specifically on the human body.

The biological revolution and the achievements of high-precision technology in this field, along with the therapeutic revolutions and techniques it has produced, have enabled control over human genetic information-genetic engineering in particular. This has prompted the emergence of realistic ethical approaches that seek to renew the value criteria for contemporary humans and legal frameworks to regulate rights and responsibilities. All of this aims to establish a unified structure of values, ethics, standards, and laws capable of confronting and addressing the dilemmas and issues of contemporary life in the medical and biobio fields, especially since biomedical practices have put humanity to the test, unleashing philosophical, ethical, legal, economic, political, and even social dilemmas, not to mention the theological opinions clashing between permissibility and prohibition.

Consequently, with the rapid scientific advancement of biotechnology, which has proven its worth and has granted humanity tremendous powers to reshape the features of life, a new field of philosophy, and human knowledge has emerged—a contemporary field with a primarily philosophical, medical, and legal nature that encompasses all these issues, establishing its evidence, principles, references, laws, and regulations that govern and direct its functions and roles. This field is called bioethics, which means the ethics of biology and medicine. It strives to attempt to control the situations and practices that violate the human body and the peculiarities of this living being, imposing constraints and limits, and establishing principles and laws to frame these practices.

This has made it assert itself today as an ethical, existential, and humanitarian discourse primarily studying what medicine and biology produce, and even technology, as it is the main driver and the primary responsible agent for the consequences of these practices. It is worth noting that the lack of regulation of these practices could lead to the destruction of humanity, undermining the ethical and religious foundations of societies and human relationships, even internationally.

Accordingly, the aforementioned issues will represent the problematic of our research, whose importance lies in addressing a series of problems related primarily to the outcomes of scientific and technological development in the field of biological and biomedical research and its reflection on the domain of ethics. This research will serve as an ethical interrogation of biomedical practices and experiments in biological research, with the aim of demonstrating the necessity of establishing values and a new ethical system and standards to

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regulate such practices, thereby preserving human dignity and freedom within a framework that protects the individual and their rights as well as society and its values.

As for the studies I will rely on, they will be varied, including articles and books by Professor Mohamed Jadidi, Mokhtar Arib, Jürgen Habermas, and Hans Jonas. Through this research, I will attempt to illustrate the philosophical presence in its ethical form in our current age, where philosophy will act as a watchdog over contemporary science and technology that is highly advanced and precise. I will try to show how philosophy will serve as the voice of the human conscience, enriched with high ethical values and ideals, granting it the moral authority to curb the excesses of contemporary science and imbue it with an ethical hue since science can respond to all calls—calls for peace and tolerance, as well as calls for war and violence.

What, then, is the role of philosophy in its ethical form in light of significant scientific and technological advancements, especially in the realm of biomedical practices and research? How has this reflected on contemporary ethical discourse? Have practices and research in this field begun to herald a real ethical crisis? What is the role of bioethical thought in renewing contemporary ethical discourse to keep pace with these developments?

1 - Ethics, Biological Ethics, Medical Ethics:

This term, with its Greek origins, refers to rules of conduct, ways of living, and even customs. Here, it shares and intersects in meaning with the concept of ethics, leading to the use of the terms ethics and ethical interchangeably. Conversely, some distinguish between them, especially since ethics critically reassesses existing moralities, emerging from modern rationality. In the biological and medical fields, it does not aim to do good as an ultimate goal; rather, it is directed towards studying and critiquing the foundational principles of the existing ethics of a

given society. The former seeks to explore what is, meaning ethics, while the latter aims to investigate what ought to be. The former is concerned with achieving good for the individual, while the latter is directed towards both the individual and society, indicating a normative perspective¹. Here, the relationship between ethics and morality, and the degree of congruence between what is ethical and what is moral becomes clear.

Biological ethics refers to the ethical, social, and political study of the problems arising from life sciences, which directly or indirectly touch human life. From this perspective, bioethics surpasses environmental and animal ethics within a broader view². This means that biological ethics primarily pertains to practices associated with scientific research in life sciences and the technologies and techniques used therein; it serves as an ethical interrogation of technoscientific practices in the field of life sciences and related studies.

As for medical ethics, its concept is linked to the concept of medicine as defined by Hippocrates. Therefore, we find that medical ethics, as a primary foundation of medicine, traces back to the Hippocratic Oath and is considered an integral part of medical practice. However, it is shaped by interventions and is sometimes contained within ontological, legal, and universal rules, thus necessarily aligning with the values required for medical research itself.³

Regarding the concept of bioethics: linguistically, bioethics is a compound word made up of two words: the first is Greek ETHOS, meaning custom, habits, traditions, and the second is BIO, meaning life, and the compound word translates to

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BIOETHICS in English and BIOETHIQUE in French, and biological and medical ethics in Arabic.⁴

From a terminological standpoint, it refers to a recent field or philosophical/scientific inquiry that has emerged, thus making experiments on humans part of medical and biological practice⁵. Bioethics must view them with skepticism and caution, demanding restrictions and the establishment of ethical guidelines and legal principles that must not be exceeded⁶. Naturally, when medicine deviates from its original mission of alleviating human suffering and curing diseases, it does not face ethical dangers and warnings, while it does encounter such issues when crossing forbidden areas and ethical boundaries⁷, such as genetic manipulations, gender changes, and virus manufacturing, prompting the need for ethics to oversee certain violations that have reached the point of violating human dignity and integrity, even threatening the existence of the human race, especially concerning biological warfare.

No matter how necessary or advanced science becomes, it can never equal the value of life; the human need for life far exceeds-and indeed surpasses-his need for knowledge. The madness of science cannot compare to the vitality of life⁸. Thus, bioethics has become profoundly intertwined with ethics, especially in matters related to the right to life and human dignity, as well as with questions of priority. We ought to safeguard human dignity, existence, and well-being before thinking about developing science and its technologies-developments that may become an actual danger threatening the existence of the human being. Indeed, they have already begun to pose such a threat as a result of unethical practices and ideas that have diverted technology from the right path, rendering human existence a source of doubt and fear. At this point, ethics must stand as a guardian.

As for bioethics topics, they have been divided into three main sections: the central nucleus, closely related topics, and those that are more distant. The central nucleus includes the ethical problems raised by abortion, artificial fertilization, cloning, gender reassignment operations, human organ donation, euthanasia, while closely related topics include contraception, biological warfare, and research conducted on animals. Topics that are more distant include health and illness, the significance of the human body, the relationship between ethics and law, and human rights, as well as the relationship between ethics and science and technology.⁹

Thus, bioethics emerges as a new philosophical inquiry primarily focused on issues and problems related to the outcomes and applications stemming from those practices in the field of biological and medical research, which urgently raises ethical, legal, and religious questions as they primarily touch human life and body, and this also relates to human dignity and future, and its relationship with society, as well as the extent of societal acceptance of such practices.

Bioethics also has a connection to topics of a medical and research nature, such as the laboratory production of viruses and microbes, and other topics that are of lesser interest than the previous ones, such as laboratory experiments on animals, and the relationship between ethics, medicine, law, and social life.

2 - The Major Principles of Biological and Medical Ethics:

Technology has dominated the life of contemporary humans and eliminated their direct connection to the world and things, thus isolating them and protecting them from tangible encounters with objects. Consequently, without realizing it,

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humanity has become enslaved and bound to technology, and as a result of excessive and irrational use of technology—which was originally a means for their well-being—their lives have become threatened due to this use.

Bioethics addresses the errors and dangers resulting from attempts and violations against human samples; there is no way for distortions and sacrifices to exceed the bounds in the name of scientific progress and technological development in biology¹⁰. Bioethics serves as an ethical interrogation of such practices and technological applications in the field of biology. It is an ethical and ontological stand on all technical experiments and applications in the field of biology and medicine.

The system of ethical values and its hierarchy, especially those related to priorities, has sparked many questions that shake it and call for action to build a new value system and ethical hierarchy that aligns with such practices and keeps pace with contemporary technology while curbing and framing it to prevent it from straying outside the framework of human, religious, and ethical values.

Thus, bioethics emerges as having sprung from the awareness of the outcomes and implications stemming from scientific advancement in the fields of biology and medicine. Science, by its nature, is blind; it is capable of responding to all calls—calls for tolerance and violence, calls for good and evil. It is a soulless servant, and ethics grant it the spirit, hence it can be said that bioethics represents an attempt to imbue contemporary science and technology with ethics, making them more humane and charitable, while preventing their exploitation in harming humanity or altering its values or tampering with its existence and dignity.

Naturally, the most important thing that bioethics advocates is the freedom of this body, rejecting interference in its nature for various reasons, including biological and ethical ones, as one

could lose their sense of freedom if genetically controlled. Bioethics refuses to allow science to monopolize human freedom, as an individual who loses their freedom inevitably becomes incapacitated when their life and future are genetically predetermined¹¹. How can one continue to believe in their freedom if their future and the outcomes of their actions are predetermined?

In light of all these questions and the anxiety raised by contemporary practices in the fields of medicine and biology, bioethics has established four major principles that can be summarized as follows:

A - The Principle of Freedom and Autonomy:

In reality, it is natural that a patient has full freedom in any decision regarding the medical procedures to be performed on them, and no party, regardless of the authority they represent, can force them to agree to interventions that affect their freedom and autonomy. There are exceptions, such as cases where the patient is unconscious or in urgent need of an organ transplant or removal to preserve their life. However, "any genetic modification that leaves this human being with no room for choice will turn them into a puppet controlled by the hands of those who created them, which Jürgen Habermas considers a form of slavery."¹²

This fundamentally rests on the freedom and autonomy of the patient-freedom in choosing what is best for their health condition. They should not be coerced or subjected to acceptance through force or exploitation of their ignorance¹³. Through this principle, which is inherently linked to the human being's essence, bioethics leads to the conclusion that a patient, whether accepting or refusing a medical intervention, is aware of the

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consequences and outcomes of these procedures. Thus, they bear responsibility for the results resulting from the medical intervention on their body.

The patient's consent or refusal of the diagnostic means presented to them is one of the most important pillars of medical and biological ethics, especially since it guarantees them the right to make a decision that aligns with their treatment. This is affirmed by the Patient Rights Association, stating: "Every rational adult has the right to consent to or refuse the diagnostic means presented to them for treating their illness. Furthermore, before making a decision, they must understand the reasons for the examination and treatment, their effects, and the consequences of their refusal if they decide to refuse."¹⁴ A close example of this is offering chemotherapy to a cancer patient, informing them of the results of accepting or refusing the treatment, or in cases where a doctor decides to amputate a patient's organ and the consequences of their acceptance or refusal of such medical intervention. This principle fundamentally represents a noble ethical principle linked to human freedom and the will to decide between accepting or refusing any medical intervention on their body.

B - The Principle of Non-Maleficence:

The Hippocratic Oath, which has become a global tradition performed by doctors upon completing their medical education, encapsulates this noble principle that embodies the ethics that a physician must possess, which is based on the premise of not harming the patient in any way. As stated in the oath: "And as for things that harm them and drive them toward injustice, I will prevent them according to my opinion, and I will not give a deadly drug if asked, nor will I give such advice, nor will I abort a foetus... Every home I enter is for the benefit of the sick, and I am in a state free of all injustice, oppression, and deliberate corruption."¹⁵

Accordingly, any medical intervention should not be aimed at causing harm to the patient, regardless of its type, and should not exceed ethical principles at all stages of treatment, while maintaining the humanity of the patient. This includes not performing any medical intervention that could cause physical or psychological harm to the patient, such as prescribing a medication that may cure them but poses a high risk to their life, or that produces side effects, or leads to psychological disturbances that they are truly better off without, or performing an unnecessary surgical operation on the patient aimed at financial gain, including all cases of medical negligence either intentionally or unintentionally.

C - The Principle of Beneficence:

At its core, the medical profession is a noble humanitarian vocation, through which physicians provide services free of any ulterior motives for humanity, working to preserve people's lives and doing good for them while providing healthcare services.

The ethical mind does not only assume respect for the freedom of others but also includes the idea of intending to do good¹⁶. That is, providing medical intervention and assistance requires good intentions without ulterior motives or illegal benefits.

D - The Principle of Justice:

The essence of this principle is: "Organizing and distributing limited resources and means to meet all local and general needs and issues."¹⁷ This includes budgets related to health, salaries of doctors, medical staff, and workers, and waiting lists for surgical operations and therapeutic interventions, such as organ transplantations like corneas and kidneys, or providing necessary medications for chronic disease

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patients such as asthma, diabetes, heart disease, and kidney failure. Here, the value of bioethical thought as an ethical thought emerges; the process of distributing medications to patients and allocating time for treatment should be fair and consider ethics above all, according to need, merit, and medical priority first. Here, equality must be upheld in dealing with patients, regardless of class, creed, faction, or political affiliation.

With such principles, we can curb the excesses of technology on one hand and restrain desires and whims on the other, ensuring that medical work is framed by ethical frameworks and surrounded by high standards that respect human dignity, rights, and freedom. Bioethics operates primarily as a watchdog over all medical practices and biological research, returning them to their origin, which is human comfort and dignity. The work of bioethics remains urgent and necessary, as it serves as a watchdog, the voice of the human conscience filled with high morals and faith, which soon becomes an authority in itself working to imbue medical practice and research in the field of biology with ethics, making it serve humanity by setting boundaries that render it humane and ethical, enhancing human dignity and existence while building freedom rather than restricting it.

Bioethics serves as an ethical inquiry into the outputs of contemporary medicine and biological research saturated with soulless, ethical-free technology and values. Unchecked technology can become a real threat to human life and existence.

3 - Issues of Bioethics and the Future of Ethics:

Some bioethical issues, given their great sensitivity, create discomfort or an ethical crisis that threatens a terrible collapse in values and an unannounced shift towards a new type of ethics sought to be imposed in many ways, with the slogan of utility first and foremost, even at the expense of human dignity,

individuality, and freedom, and even at the cost of ethical values. This is why these bioethical issues raise major problems that leave us feeling uneasy and fearful, due to the concerns and questions they raise about the future of ethics, and indeed, about the future of humanity itself.

Among the most important of these issues are biological warfare, cloning, euthanasia, and gender transitions. If we focus well on these issues, we find they all concern the body. The contemporary bioethical view of the body differs from the perspectives known since ancient times up to the 18th century, evolving from the body as a machine to the cloned body, the composite body, and now to the extended body or what is now referred to as the digital body.

A - Biological Warfare:

Biological warfare is defined as microbial or bacterial warfare that employs an unusual type of weapon in traditional warfare, involving the deliberate use of viruses or infectious or lethal bacteria against an enemy. Biological warfare is the intentional release of a pathogenic agent against humans, plants, or animals, and an attack may target humans to induce disease, death, fear, and social and economic damage, while an attack on plants or animals results in economic damage and food loss, potentially leading to loss of life¹⁸. The aim of a biological attack may be to eliminate humans, cause them to suffer from diseases, or result in the birth of deformed offspring in a given country. What occurred in Iraq after the American invasion and the attacks on Baghdad and Basra, leading to countless births of deformed children, raises suspicions about the possibility of an undeclared biological attack during the Iraq War. A biological attack may also target animals and agricultural crops to destroy them, causing food shortages and famine to force the enemy to surrender after weakening them.

A biological attack, when directed at humans-as noted-may result in illness or death, and even instill fear and terror in the hearts of people due to the transmission of infection or the spread of death, causing social and economic unrest that in turn leaves significant destructive impacts. If this biological attack targets plants and animals, similar to humans, it will lead to numerous damages, including economic harm and loss of trust in the food supplies of a particular country, without neglecting the potential human losses that may arise from it.

It should be understood that there are two types of biological agents that cause harm and are employed within the framework of genetic engineering applications. The infectious agent is one that spreads from one individual to another, such as smallpox and Ebola among humans, or between animals,

spreading from one animal to another, such as foot-and-mouth disease and other animal diseases. The non-infectious agent causes harm to individuals exposed to it, but their infection does not pose a threat to others, as it is non-infectious and non-contagious, such as anthrax and botulinum.¹⁹

These biological agents can spread in various ways, such as being released into materials via devices like pumps, injected into residential buildings, or through transportation systems via ventilation systems, or by mixing them with food.

Unfortunately, the biological revolution has served as the first indicator of humanity's leap into an overwhelming sea of knowledge, leading to the use of biotechnological techniques and new technologies in a bipolar problematic of life and death. This has made humanity kill itself knowingly. Thus, the urgent need arises to return to major ethical questions and for humans to reconsider their scientific behavior and the destruction and real threats it brings.

With biological warfare, the paradigm of war shifts from confrontation between two armies to deploying a lethal virus to instill panic and terror and destroy nations, accomplishing what armies have failed to achieve with their power and might. Thus, biological warfare remains the most horrific in the history of human wars, the most complex and destructive, as you cannot see your enemy, prepare for them, or anticipate their attack. This is because it employs invisible yet lethal weapons.²⁰

Biological warfare may be executed by a state or an unofficial entity, or a secret formation or gang possessing technology that employs it to eradicate humans, animals, or even plants in a given country or place in the world. Technology in the field of life sciences has become a source of fear and terror,

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as a lethal and contagious virus produced in a lab or a newly modified virus that becomes more deadly could plunge the world into chaos and great danger. Biological warfare has become a haunting concern threatening human existence as a whole, leading to calls for establishing new ethics different from classical ones-ethics that align with the new developments in scientific research and technological advancement that have become a danger to human life and existence. Ethics must restrain the madness of humanity, intoxicated by the knowledge and technology they possess, which has unfortunately been employed improperly. Science and technology were intended to benefit humanity and serve it, representing good and a tool for human benefit, but unfortunately, they have been used for purposes contrary to their intended functions.

Ethics must dominate the post-modern human reality to protect its existence and survival, returning humanity to its humane values and expelling its primal, savage side. This new ethical framework calls for the dismantling of all biological weapons and the destruction of all weapons of mass destruction. It must also curb the savage animalistic instincts of post-modern humanity, restoring them to the path of righteousness and establishing a more rational and tolerant ethical framework includes a return to religions and optimal values while attempting to transcend what has been lost from classical ethics. Every era has its ethical values and the problems that arise from them.

If we examine the danger of laboratory-manufactured viruses, we can take the example of the coronavirus, which has overturned ethical norms, especially as it has imposed a new type of values. For example, even greetings and exchanges of pleasantries have changed form, forcing people to distance themselves and greet from afar, being wary of others, and ensuring the safe wearing of masks²¹. Thus, new behaviors and

values have been rapidly imposed, and failing to comply with them is considered a violation of ethical values. In this way, ethical systems are overturned, and even ethical hierarchies and priorities change.

B - Cloning:

The word cloning is derived from the Greek root (Klon), and it is used in biology to describe the phenomenon known in nature where certain types of living organisms reproduce through cell division, that is, without sexual connection by manipulating genes within chromosomes²². Cloning, in this sense, is linked to the world of living organisms, whether human, animal, or plant.

Among the definitions of cloning is that it is "an act of precisely manipulating created materials and coordinating them."²³ Cloning manifests as a mechanism of genetic engineering and is one of the greatest concerns of contemporary scientific research in the field of biology.

Human cloning has constituted a breach of the innate human norm, exceeding what is customary and paving the way for the potential acceptance of cloning a human being through literary and cinematic works, such as the novel "Frankenstein," which illustrated Dr. Frankenstein's hopes of creating an adult person, ultimately resulting in a creature that turns out to be more humane than its creator²⁴. Additionally, Aldous Huxley's novel "Brave New World" revolves around the possibility of splitting a fertilized egg to create a human replica, as humans are divided into upper and lower classes... and Alvin Toffler's book "Future Shock" describes the terrifying future of humanity.

Here, fears arise from the biological revolution and the issues and problems related to it, particularly from a values and ethical perspective, prompting us to review our path and the

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direction in which the world is heading, and where scientific research and technological advancements are taking us. In the context of cloning, we may not need a mother; we only require an egg to be fertilized, and tubes become the incubators...

The issue of cloned test-tube babies has been promoted in many films, reflecting the hopes of specific political and ideological circles seeking to build a human army with characteristics distinct from other humans, enabling their clones to ultimately control the world, and possibly eliminate the rest of humanity. The golden billion project summarizes everything that is happening and what is being planned in the shadows of night in dark rooms and secret labs.

The future of humanity has become threatened by what post-modern humans are plotting, those who possess the reins of highly precise technology in the field of life sciences, whose obsession is how to turn this superiority into leverage that allows them to dominate the world and change the biological composition of humans, creating what can be termed the "Superman," which Nietzsche predicted over a century ago. This raises a series of ethical questions.

What position will this clone hold in relation to society? Will it be accepted without an identity? Will this clone, who lacks family ties, intimacy, love, or a sense of belonging, adhere to societal values, ethics, customs, traditions, and laws? What will be its allegiance? Will it understand compassion and mercy, or will it merely be like a machine used at will by its creators?

In light of these challenges, developments, and questions, it becomes urgent to create a new type of ethical values and value standards that align with this evolution and change that has occurred in human life due to the irrational use of science and technology and the pragmatic exploitation of technological advancements without consideration for ethical, humanitarian, and religious values, disregarding them altogether.

Other issues related to cloning raise intellectual controversy and ethical inquiries, such as test-tube technology, surrogacy, sperm and egg banks, and artificial fertilization techniques. The near future may be frightening and complex given the rapid developments in this field.

The issue of organ transplantation and electronic chips is also linked to cloning, as it has created global markets and banks for cloning humans by providing biological spare parts, which may include organs, chips, cells, or even contact lenses or electronic chips in their brains that predispose them to predetermined specifications and mental programming. What if this programming is for violence, destruction, and genocide?

Bioethics, in its general concept, is based on the idea of restoring ethics as a form of response to certain changes applied in the field of emerging biology; especially as Western awareness has begun to recognize the dangers that may arise from the consequences of science and biotechnology. In fact, many philosophers and bioethicists have started discussing the implications of the power held by these technologies and their controlling circles, particularly concerning the human body. Discussions now revolve around the fate of humanity, as humans have begun to be viewed as mere manufactured animal products in laboratories. Ethical and value-related problems arise regarding whether genetic engineering can alter the ethical, social, and legal foundations upon which human societies are built and the normative and ethical bases governing human life, considering that it has created "a near rupture between several concepts that were previously interconnected: such as pregnancy, childbirth, fertilization, and replacing them with contemporary global concepts that commodity humanity, like surrogate

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mothers, test-tube babies, and artificial fertilization."²⁵ This threatens familial bonds and the sense of completion, as well as the spirit of solidarity, love, and familial intimacy, which may reflect on society itself by weakening the connection to society and diminishing pride and loyalty toward it.

In the context of artificial fertilization and surrogacy, bioethics rejects the idea of freezing embryos and donating them to those suffering from infertility because of the risks and ethical and social problems it entails. Women donating eggs for the benefit of others expose themselves to health risks such as heart attacks and ovarian cancer. Moreover, such procedures degrade women's dignity, turning them into factories for egg production. Conversely, some countries have permitted experiments on surplus embryos, arguing that the life of an embryo differs from that of a human being.²⁶

Genetic manipulation concerning childbirth and pregnancy has witnessed dangerous violations and transformations that carry significant changes in the development of contemporary human life and relationships, affecting even identity and obscuring it in exchange for the profits derived from these technologies, which have become a source of wealth, raising fears that the situation may evolve into unforeseen consequences. No voice is louder than the voice of money in a more pragmatic world, where the new capitalism is manifested in its most savage form. This matter is neither trivial nor simple; it becomes even more dangerous when profit and money enter the realm of experimentation and practices in this field.

Despite cloning being legalized in some Western countries, particularly cloning embryos, which they consider a collection of cells and tissues devoid of any emotion or sensation in the pre-birth stage, some of these countries permit abortion, while all heavenly religions, international laws, and ethical values and

norms universally view any harm to the embryo as an affront to human dignity, even in its earliest phases.

In this regard, Habermas argues that human dignity is no longer a natural given determining the type and gender of the embryo and its intelligence or color. He distinguishes between what is ethical and what belongs to nature, asserting that emotions should not interfere in such practices-like a grandmother gestating her daughter's embryo who suffers from pregnancy issues-nor should women from lower economic classes be exploited by renting their wombs, as it leads to treating bodies based on profit and loss standards.²⁷

Thus, the body becomes a commodity, bought and rented, which indicates a degradation of human dignity and a return to slavery in forms not seen before, exceeding even the Roman or feudal forms of slavery. Unfortunately, under these technologies, the body acts as a commodity entering the market, governed by the law of supply and demand, and the biotechnology market becomes a developed slave market armed with ultra-precise technology.

The entry of philosophy into discussions regarding such experiments and practices serves as a cry for human conscience, drawing attention to the implications that contemporary technology may lead us to, which has become a tool of power in the hands of a new savage liberalism filled with the spirit of pragmatism in its most grotesque forms. As a contemporary philosophical discourse, bioethics aims to alert humanity to the dangers that may arise from overturning ethical balances and disabling commitment to ethical values; when the ethical watchdog is absent, the animal within human beings emerges, threatening their existence and survival.

C - Euthanasia:

Linguistically, the term euthanasia derives from the Greek root, composed of two parts: EU meaning good, and Thanasia meaning death, or "good death" or "merciful death."²⁸ It refers to a good death free of suffering and pain.

From a terminological perspective, the concept of euthanasia-which is optimal for such practices-refers to the patient's ability to end their life in cases of hopelessness of recovery, intending to alleviate the pains they endure and cannot bear²⁹. When suffering peaks, especially if a person is afflicted with an incurable disease, the patient and doctor decide to put an end to this life filled with pain and suffering, for which recovery is not expected.

The major dictionary of philosophy defines the significance of euthanasia as follows: "Euthanasia: a harsh act deliberately provoking the death of a person, in order to relieve them from suffering or an unbearable life condition."³⁰

It is understood from this text that euthanasia is hastening someone's death to relieve them from pain; there are two types: active euthanasia, involving administering a medication or serum leading to death, and passive euthanasia³¹, which involves refraining from any action or intervention concerning the patient's condition, such as halting treatment. The first occurs with the patient's consent, while the second occurs without it. Nonetheless, the criterion in both cases is the patient's increasing deterioration and the absence of healing options against the progression and exacerbation of the disease that ravages the body.

In reality, euthanasia is not a concept created by contemporary society or the human condition; rather, it has roots that date back to ancient times, specifically among the Greeks, where both Plato and Aristotle advocated for the execution of deformed children, and the Spartans would expose new-borns to

harsh conditions, admitting those who could endure them and survive as deserving of life, while those who did not survive were deemed unworthy.³²

The procedures of this process are not easy for the patient alone, but also for the doctor. After the physician has become accustomed to practicing their profession under certain ethical standards, allowing them to promise the patient recovery and healing, and not offering patients choices when nearing death, regardless of the reason, they now face an embarrassing position. They want to remain objective but are confronted with serious humanitarian cases that require them to act from feelings of empathy and assistance³³. However, the doctor is torn between professional ethical obligations and a lack of means. On one hand, they are compelled to adhere to the ethical standards of their profession and not negatively impact the patient's psyche. On the other hand, they find themselves in a position of helplessness, unable to assist patients in healing, simply observing their suffering, moans, and pain until death, with both the doctor and patient equally powerless.

All these contradictions have led to proposing the idea of euthanasia, aimed at liberating the patient from the shackles of illness and healing. While medicine is the only savior for humanity from premature death via vaccines-thanks to the remarkable successes achieved in this field and in treating some chronic diseases-it has, at certain stages, failed to keep the patient alive.

Whatever the motives for euthanasia, promoting and implementing this procedure in some countries has raised a prominent philosophical and ethical dilemma concerning the motives, solutions, and cultural dimensions of euthanasia, as

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well as its bioethical and religious implications. Moreover, it has required regulation, and all these positions have arisen from fears regarding the consequences and spread of euthanasia or granting the patient the freedom to decide their death or the doctor in certain clinical cases, particularly in prolonged comas.

In the midst of this debate-debating life and death, personal will and general principles-bioethics views euthanasia as a dilemma that leaves its possessor handcuffed in total confusion. According to medical ethics, human life is sacred; however, despite its sanctity, each individual-the patient-has the right to manage their life as they wish. From a bioethical perspective, the will and desire of the patient supersede all other rights and transcend them, especially since they are not subject to the disposal of anyone else, particularly after receiving or ceasing treatment³⁴. Here, euthanasia raises a problem related to the freedom and will of the patient, presenting an ethical dilemma.

Hans Jonas argues that contemporary technology has shifted from its promises of prosperity and enhancing human life to threatening existence and the very nature of humanity itself. Thus, he states: "All of this necessarily calls for a new ethics aimed at curbing human capabilities before they become a curse upon them."³⁵ He also argues that among all the rights that must be guaranteed to humans is the right to life, linked to the right to freedom and all that entails, including the freedom to submit to treatment, refuse it, or choose between continuing life or ending it.

Jonas affirms that it is unjust to deprive a patient of the right to decide to end their life if their health condition necessitates it, but it is not the doctor's right to end their life if their condition is hopeless, as that constitutes intentional killing and a violation of ethical principles.

Meanwhile, François Dagonis argues that as long as doctors have the right to induce abortion, perform transplants,

and inject embryos, they also have the right to determine the life of a patient hopeless of recovery, and should not be legally pursued or held responsible. Here, a real ethical crisis shakes classical ethical principles, necessitating the establishment of new ethical values that align with these very sensitive and deeply troubling developments, as they touch not only ethics but also religion and all human values.

Ethical problems only emerged after the medical field experienced serious violations affecting human dignity and the permissible limits of these practices. Some biomedical practices have crossed red lines; instead of resorting to organ transplantation in critical medical cases, some healthcare institutions-or their workers-have resorted to trading organs from patients and even healthy individuals to achieve wealth, exploiting this group and forming an organ trade mafia, through which they have made millions, all while advocating for donations and disregarding laws³⁶. Thus, global syndicates have formed for organ trafficking, creating a black market that wastes human dignity, freedom, values, and ideals, particularly thriving in environments of war and ethnic and sectarian conflicts.

As a result of such practices, the field of bioethics has mobilized to draft and enact laws that are fundamentally ethical, framing biomedical practices and curbing human instinct and technology. Thus, laws have emerged, and local and international organizations and associations have been established to regulate various biomedical practices. Some practices, such as virus manufacturing, genetic manipulation, and organ trafficking, have even been criminalized and prohibited, with punitive laws enacted and penalties tightened in many countries.

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Thus, bioethics appears as a contemporary philosophical discourse clarifying the boundaries between technology and human dignity in conjunction with humanity's on-going need for medical and biological solutions to its health problems and in overcoming chronic and lethal diseases.

Bioethics raises numerous issues related to practices that affect the human body, making them subject to ethical, ontological, and bioethical scrutiny. Among these issues is the matter of gender transition, or as some refer to it, gender reassignment, which involves determining and altering a person's gender in a manner different from the sex assigned to them at birth. This emerging and artificially created phenomenon through scientific and technological advancement contradicts human nature. Unfortunately, it has received framing, legislation, and societal support in some Western countries and the contagion of this trend has spread to impact other nations around the world. For instance, Lebanon has witnessed a rise in this phenomenon, with private clinics leading in such operations, not to mention cosmetic surgeries and alterations. Some who advocate for these procedures refer to them as gender correction, considering that there is an initial defect that needs rectification, determining the optimal gender for the individual post-operation.

Here, it is necessary to distinguish between sex correction and sex change. The Resolution of the Islamic Fiqh Academy issued during its session held from 09/02/1989 to 26/02/1989 in Mecca (Resolution No. 6) states the following regarding sex correction: "As for those whose bodies exhibit both male and female characteristics, consideration shall be given to whichever traits predominate. If the signs of masculinity prevail, it is permissible to treat the individual medically in a way that removes ambiguity regarding his masculinity. Similarly, if the signs of femininity predominate, it is permissible to treat the individual medically in a way that removes ambiguity regarding

her femininity, whether the treatment involves surgery or hormones, since this is a medical condition intended to be cured, not an alteration of creation."³⁷

Thus, correction is not the same as sex transformation, for the latter is associated with psychological disorders, deviance, and unethical desires. This phenomenon-which is now supported in ways that arouse suspicion and doubt-has given rise to organizations and associations advocating the freedom to change one's sex, promoting homosexuality, and condemning what they describe as restrictions on freedoms.

The contemporary world, saturated with the achievements of scientific progress, has come to experience a moral and axiological decline unprecedented in human history. This calls for efforts to construct new ethical values capable of restraining science and high-precision technologies that have become liberated from all constraints-new ethics that call for a return to sound human nature and rationality, that combat all forms of deviance and obscenity, criminalize all practices that violate the human body, provoke doubt, contradict higher moral values, and undermine human dignity, freedom, and humanity.

Thus, bioethics emerges as a response to the new ethical issues arising from scientific advancement. It represents the awakening of the human conscience from its slumber and heedlessness-a moral outcry against the haze of scientific greed and technological ferocity.

Conclusion:

Bioethics, in its essence, is not a product of modernity or postmodernity; rather, it is a newly arisen concern, much like the issues that appear in every era. Bioethics is a philosophical and ethical discourse focused on new developments in scientific

research and the intricate applications in biology and biomedical studies, as well as their consequences, which now raise many questions. Philosophy in every age turns the problems of its time into material for discussion and for proposing solutions. Bioethics appears as an existential and ethical stance, a moment of questioning and testing contemporary science and its applications in the field of biology-especially concerning the human body. It subjects all these studies and achievements to the test of ethical inquiry. It is a philosophical examination of the moral dilemmas brought about by the enormous scientific progress in biological and medical sciences and the resulting ethical issues, which extend not only to the fields of life sciences and modern medical technology but also, as a consequence, to other realms such as politics, law, and religion. It is a decisive ethical moment that seeks to restore what remains of the humanity of the postmodern human being.

Among the most important issues addressed by bioethics as an ethical inquiry are the value and sanctity of life, the value and sanctity of the human body, and the trajectory, limits, and future of science-which includes technology as well.

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