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POST-MODERN BIOETHICAL STRESSES DESTINATION OF SURPLUS EMBRYOS: BRAZILIAN ANALYSIS AND BRIEF COMPARISONS

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Abstract: The objective of the present study is to point out tensions of the theoretical/practical universe that Bioethics is facing in Brazil, in the search for a praxis for the destination of surplus embryos. We consider that Bioethics analyzes the implications of such practices in society and in relationships between individuals. Brief data from other countries were presented to compare the Brazilian situation progressively from the conceptual point of view and the adoption of measures. The research is a scoping review on the main points that have been hindering the progress of discussions on the subject and consequently the respective solution. The legal status of the embryo was described from several perspectives and theories, with the resulting proposals for the destination of surplus embryos in their positive and negative aspects. The tensions of Bioethics were presented in the context of post-modernity and the consequent social and moral plurality, together with the difficulties of identifying a secular bioethical morality. In the end, we conclude the possibility of proclaiming a consensus on the destination of surplus embryos based on secular morality, supported by the figure of the "moral strangers".

Keywords: embryo status, excess embryos, bioethics

La bioética posmoderna tensiona el destino de los embriones sobrantes: análisis brasileño y breves comparaciones

Resumen: El objetivo del presente estudio es señalar las tensiones del universo teórico/práctico que la bioética enfrenta en Brasil, en la búsqueda de una praxis para el destino de los embriones sobrantes. Consideramos que la bioética analiza las implicaciones de tales prácticas en la sociedad y en las relaciones entre los individuos. Se presentaron breves datos de otros países para comparar progresivamente la situación brasileña desde el punto de vista conceptual y de la adopción de medidas. La investigación es una revisión del alcance de los principales puntos que han obstaculizado el avance de las discusiones sobre el tema y, en consecuencia, la respectiva solución. Se describió el estatuto jurídico del embrión desde diversas perspectivas y teorías, con las consiguientes propuestas para el destino de los embriones sobrantes en sus aspectos positivos y negativos. Se presentaron las tensiones de la bioética en el contexto de la posmodernidad y la consecuente pluralidad social y moral, junto con las dificultades de identificar una moral bioética laica. Al final, se concluye la posibilidad de proclamar un consenso sobre el destino de los embriones sobrantes basado en una moral laica, apoyada en la figura de los "extraños morales".

Palabras clave: estatuto embrionario, embriones sobrantes, bioética

Bioética pós-moderna enfatiza o destino de embriões excedentes: análise brasileira e comparações breves

Resumo: O objetivo do presente estudo é destacar as tensões do universo teórico/prático que a Bioética está enfrentando no Brasil, na busca de uma praxis para a destinação de embriões excedentes. Nós consideramos que a Bioética analisa as implicações de tais práticas na sociedade e nas relações entre indivíduos. Dados resumidos de outros países são apresentados para comparar a situação brasileira progressivamente de um ponto de vista conceitual para a adoção de medidas. A pesquisa é uma revisão de escopo sobre os pontos principais que vem atrapalhando o andamento das discussões sobre o assunto e consequentemente a solução respectiva. O status legal do embrião foi descrito a partir de diversas perspectivas e teorias, com as propostas resultantes para a destinação dos embriões excedentes em seus aspectos positivos e negativos. As tensões da Bioética foram apresentadas no contexto da pós-modernidade e a consequente pluralidade social e moral, juntamente com as dificuldades de identificar uma moralidade bioética secular. Ao final, nós concluímos pela possibilidade de proclamar um consenso sobre a destinação de embriões excedentes baseado na moralidade secular, apoiado pela figura dos "estranhos morais".

Palavras-chave: status do embrião, embriões excedentes, bioética

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Introduction

The use of assisted fertilization, which has existed since the 70's (20th century), is also increasingly growing in Brazil demonstrating that the answers given by science for many problems that are difficult to solve have been accepted worldwide.

However, "sciences are not aware of how they imprint themselves in culture, society in history"*(1:3)*. They do not always consider the problems that their answers may cause, and how its effects may be resolved. Such effects are merely considered "secondary drawbacks or minor by-products", in a simplification of complexity.

About these aspects, Morin*(1)* explains that the substantial concepts of man, individual, and society exist in several disciplines and are usually scrutinized by them, making their interdisciplinary reconstitution difficult. There seems to be a dispute for concepts among disciplines, each one with its certainties, while the problems arising from them continue.

Another example is the encapsulation or fragmentation of knowledge, meaning the following: either the knowledge that is set aside from the empirical reality or science would be above the problems it triggers or the science that brings the solution, while the other areas take care of its effects respectively.

In this context, assisted fertilization has raised questions, especially regarding the fate of surplus embryos. These are human embryos that were obtained through hormonal hyperstimulation in women, were not implanted in the maternal uterus for whatever reason*(2)* and have been cryopreserved.

The destiny of these embryos can be seen as the inscription of assisted fertilization in culture, society, and history. This inscription has generated religious, ethical, and legal questions for society, confirming the negative effects of the progress in science which Morin referred. Far from appearing secondary or minor, this line of questioning has aroused discussions from various points of view because it involves values that integrate the culture and history of society.

While, on the one hand, it is true that the subject lacks a legal standardization that provides viable solutions for the fate of surplus embryos, on the other, it is logical that this standardization involves quite controversial points, such as the fundamental concept of an embryo and the fundamental right to life, among others, making the possibility of a socially satisfactory solution difficult.

For the time being, there are no general statutes that ensure a destination for surplus embryos within a secular ethic that allows the sharing of ideas or solutions by "moral strangers". These people who do not share the same premises or moral rules, but who manage to solve social obstacles through healthy arguments. There are many legitimate moral perspectives, but "moral strangers" can share some ethical solutions that benefit society as a whole, although holding different scales of values*(3)*.

For Casabona*(4)*, the problems arising with the new technologies are not only wide-ranging, but also multidisciplinary in nature, especially those affecting the ethical sciences, due to their relationship with the protection of human life and dignity. The search for solutions for science's answers to empirical problems represents a harmonious search to living contentedly with the inevitable and beneficial advancement of science. The benefits brought by techno-sciences demonstrate the need for a new epistemology that aims to break the determinism and simplification with which the facts have been treated. It is an epistemology that "incorporates chance, probability and uncertainty as necessary parameters for the understanding of reality"*(5:3)*.

Thus, it is necessary for disciplines to seek, each in its own way and with its own competence, solutions to the questions that arise. In addition to more personal or group interests and beliefs, it is also important to observe solutions that serve more people and solve more problems.

A illuminating study on the subject shows that there are three fundamental positions today on the destination of surplus embryos. The perspectives basically focus on the notion of embryo: two radical/extreme views and one advanced one. The first one considers the human embryo a person

from conception. The second one considers the embryo to be "just a bunch of cells", without the status of a person. The third one is in between the two previous ones and considers the embryo a "real potentiality", destined to become a person in its development*(6:123)*.

Respectively, the positions cited correspond to the following theories: "conceptionism," which prioritizes the maximum protection of the embryo as a human person and recipient of rights (6); the "genetic-development" perspective, which considers the human embryo to be a heap of cells that, as such, has no rights, because there is no person properly said (Meirelles, 2000);and the "potentiality of the human person" perspective, which views the embryo as a potential human being*(6)*. From the concept of the embryo, other aspects also arise, including guardianship.

In this context, and in search of a praxis, the objective of this work is to point out, through a scoping review, tensions of the theoretical/practical universe that Bioethics faces in Brazil, in the search for a praxis for the destination of surplus embryos. The scope review is indicated when the subject has been little explored or has a heterogeneous and complex character. A mapping of important aspects of the topic is made in the literature, and its volume, nature and characteristics should correspond to a primary research*(7)*.

In the course of the research for this paper, national and international research by researchers/authors who are prominent in this topic was consulted.

Embryo status

Lepienne claims that discussing the moral *status* of the human embryo is perhaps one of the "most thorny tasks of Bioethics"*(8:12)*. This difficulty is inferred from the fact that the theme includes definitions of an embryo and limits of the human person, in addition to the respective ethical and legal implications. Depending on the ethical and legal points of view, the embryo is defined based on different conditions, generating negative and positive positions, depending on individual or group beliefs.

For Blumberg-Mokri*(9:31)*, when it comes to the basic construction of the human embryo, the recurring question is: "the human embryo is ... human?" Furthermore, the supreme principle that underpins this issue is respect for the human nature of the embryo, in vivo or in vitro Bernard et al. cite other questions in this sense that are raised by biomedical technoscience: "Is the embryo human from fertilization or from a later stage? […] Does this apply to the human embryo and from when?"*(10:179)*. These questions arise from the identification of the embryo as human or not, and here come its consequences: when do life and personality begin?

Currently, the paradigm resulting da large and steady great and steady scientific-technological evolution has brought other representations of the world, other problems, and different solutions to old issues, such as assisted reproduction for couples facing difficulty regarding fertilization. Society has become plural due to these representations (among others), broadening its view of concepts and morality. In most cases, problems are seen within the perspective of openness to new understanding. In others, more traditional points of view persist, especially on issues involving religious principles, common sense, and group ethics.

Given the advanced possibilities of scientific answers to general problems of reality, and amid current discussions on the subject, it is worth reflecting philosophically on the concept of the embryo in order to understand how it is defended in the context of the current paradigm.

In ancient Greece and Rome, people were not seen as they are today. One's right came from social recognition and paternal acceptance. In the Christian community, the conception was that of man as a being created in the light of the divine image, and this idea greatly influenced the notion of the embryo. The Pythagoreans, who considered soul a divine and immortal essence, argued that the embryo would have spirit from conception. Supposedly, it was commanded by exclusive functions of growth and nutrition, and the ascent to human status was progressive, because intelligence, a human trait, only arrived at a certain moment. The Stoics, on the other hand, for whom

the soul was a material principle and part of the divine that extended to the body, understood that the embryo would be animated at birth, in its first breath. The vital breath would turn into life and make it grow*(10)*.

This description clarifies two important points in relation to what is being discussed today: the preservation of the strong Christian conception around the embryo and its representation associated with the phenomenon of animation, with origin and stages of development until it acquires human characteristics. The former reflects group positions, but the latter can contribute to decisions about the fate of the surplus.

In the general sense, the word "embryo" refers to a stage of human development in which the fertilized cell, the egg, is transformed into a collection of tissues and cells, which is the fetus. This takes place in the first eight weeks of fertilization*(8)*.

In sexual reproduction, conception occurs when a spermatozoon (male gamete) joins an oocyte (female gamete) and its elements will compose a different organism, the zygote. The new organism then begins to develop into an embryo by means of differentiated cell division into two cells, into four cells and so on. A "stable body" is formed, whose cells act in a coordinated manner in a regular, predictable, and human evolution-oriented process*(11:304)*.

The period of formation the largest growth of the embryo occurs, which increases it to about 10 thousand times the size of the zygote and the main systems are developed. It is a very vulnerable stage, so much so that only between 10% and 20% of the fertilized eggs become embryos. At the embryo stage, about 50% of pregnancies do not go ahead due to several factors, including inadequate attachment of the blastocyst in the mother's uterus*(12)*.

In *in vitro* fertilization, the encounter of the sperm with the egg (fertilization) takes place in the laboratory, and the formed embryo is placed in the female uterus later. In this process, the development of the embryos is interrupted before cell differentiation, will all cells pluripotent. "It is the moment when (the embryos) are evaluated for their viability of implantation in the uterus"*(12:20,21)*. If the embryo is healthy and in the right environment and with the right nutrition, its development will be active, according to the process of the species. There is only difference in the degree of maturation, not in the type, at any stage of the embryo, fetus, or even the baby*(11)*.

According to these authors, based on embryological evidence, the human embryo is not just a part, but a complete human being immature. Their constituents are human from the genetic point of view, but they are not whole human organisms, because none of them have an active disposition for development. Since fertilization, the human embryo is completely programmed for active development towards the next stage of human evolution.

Lucas*(13)* states that medicine has entered into the discussion about the status of the human embryo and has defined it as "a potential being," because it understands that, concretely, it only reaches some meaning at the beginning of life (a being in action).

To a certain extent, in Brazil, when the Federal Supreme Court (SFT) judged the constitutionality of Law no. 11.105/2005 and adopted the notion of embryo as a potential human being, which, in itself, already deserves legal support. It highlighted the distinct realities of the embryo, the fetus and the human person, and stated that there is no embryonic human person, but the embryo of a human person*(14)* (*emphasis added*).

In Portugal, the reasoning prior to the legislation considers the embryo "a living human being," with a right to life and protection*(15:4)*. In the UK, the status of the embryo is debated differently by law, morality and ethics, without much depth as to the concept*(16:13)*. In China, the recognition of the legal status of the human embryo is under renegotiation due to various causes and developments*(17)*.

Thus, while arguments —from religious beliefs to biological definitions— create impasses for the solution, the number of surplus embryos continues to grow and have an uncertain destina-

tion. Palliative measures can reduce this number through legal determinations, for example, regarding the number of embryos to be implanted in the maternal womb. It is also important to review the process since the hormonal stimulation, as a surplus, results from something that started well before.

About the destiny of embryos, the authors made a link to the Biodirect by using the term "embryonicide" to refer to the destruction of surplus embryos and expressions as "human guinea pig" to portray the use of surplus embryos in research (2). There is also a tendency to see the embryo in a "coisified" form, only as research material, disregarding the ethical and ontological issues that exist in parallel with its scientific purpose.

Speaking of the idea of "thingification," Mürkovic, in a *summa divisio,* explains that there are "people and the rest" that are things and that "thing" is not to be understood pejoratively, but as that which is not a person: "There is no intermediary between the person and the thing, half-person or person (…). Therefore, to qualify the embryo as a human person, (...) it is necessary to treat it as a person or not"*(18:1)*.

This is one of the points on which the definition of the embryo's status and the fate of surplus embryos depends.

Destination of surplus embryos in Brazil and other examples

The concern for the fate of these embryos is universal. Santos*(19)* states that, in Portugal, this issue was discussed in several legislative projects, several committees were created, but no bill became law. In Brazil, the discussion of this issue was somewhat neglected. The Federal Council of Medicine's has endeavored to make ethical standards possible, but they refer to physicians.

Surplus embryos may not have the appropriate environment and nutrition for their active development because they remain in the laboratory and cryopreserved. Through the theory of nidation, the uterus is the appropriate environment, and is prepared for the development of the embryo, because it provides the necessary conditions for its growth. "*In vitro* embryos do not have conditions of development outside the womb until they are implanted and nested"*(19:31)*. Semião*(20)* states that there is no extrauterine life. Therefore, *in vitro* fertilized embryos cannot be considered human.

There is an impasse: what initially exists (the embryo) is not only a "bundle of homogeneous cells," as is biologically proven, but it needs an adequate environment and nutrition to exercise its active disposition. The point of this impasse is: what to do with the preserved embryos, when there is no stipulated time for its cryoconservation?

In China in 2014, a study of over 3,000 embryos frozen between 12 months and 48 months found no difference in thaw survival rates, implantation rates, pregnancy rates, live birth babies, nor birth weight*(21)*. In the United States in 2017, the media reported on a pregnancy with an embryo frozen for 24 years, and the baby was born well*(22)*.

As there is uncertainty regarding the viability of each of the embryos conceived, several eggs are fertilized and the most suitable ones are implanted in the uterus. The others remain cryopreserved. The rest remain cryopreserved*(23)* are surplus. A brief example shows the following: in Australia and New Zealand in 2000 the total was over 71,000 frozen embryos*(24)*; in the United States in 2002 about 400,000 cryopreserved embryos were in storage: 88% for future use by patients, 3% for research and 9% "unwanted", possibly abandoned. More recent data from that country estimates that there are over 1 million cryopreserved human embryos, and at least about 90,000 may have been abandoned*(25)*. In Spain, in 2012, the number of cryoconserved embryos was over 200,000 and, worldwide, this figure was over 1,500,000, highlighting the great loss that the process of *in vitro* fertilization causes*(26)*.

However, some measures started to be adopted. For example, as recently as 1988 in Spain, Law 35 established that surplus embryos could only be kept for six years. In 1990 in Germany Law 745 prohibited the intentional creation of surplus embryos, with a penalty for violation*(27)*. In Brazil, in 2005, art. 5, *caput*, of Law nº 11.105/2005, the

Biosafety Law states that: "Art. 5 The use of embryonic stem cells obtained from human embryos produced by in vitro fertilization and not used in the respective procedure is allowed for research and therapy purposes". It established the conditions for such (Brazil, 2005). In Portugal, until 2000, there were no regulations in this sense*(27)*.

In 2013, the Brazilian Federal Council of Medicine (CFM), through the Resolution 2013/2013, established ethical standards for assisted reproduction techniques, determining in Section I – General Principles: "6– The maximum number of oocytes and embryos to be transferred to the receptor cannot exceed four", rang from 2 to 4, depending on the age of the woman. ranging from 2 to 4, depending on the woman age. In Section V, this resolution, indicated: "4- Cryopreserved embryos more than 5 (five) years old may be discarded if this is the will of the patients, and not only for stem cell research, as provided in the Biosafety Law"*(28:3)*.

The estimate was that 108,000 cryoconserved embryos were discarded under this Resolution*(29)*. Resolution no. 2,121/2015 kept the above criteria and innovated in others*(30:1)*. The lack of protection on the part of the State causes controversial situations to be disciplined only by this Resolution.

Specifically, Theories about the beginning of life, based on the concept of the embryo, end up positioning their supporters in relation to the fate of surplus embryos.

Surplus embryos destination

Several theories about the status of the embryo can be cited. The main ones, based on the definition of the embryo as a human person, as an accumulation of cells, and as a potential human being, respectively, advocate the following:

- Conceptionist theory: Life begins at the moment of conception, between 12 and 24 hours after fertilization. The embryo, the first stage of human development, represents a full condition of the person in question, including their inherent values of being: "the cell formed with its own characteristics (...) from that moment on (...) would be able to develop independently of third-party interference"*(12:26)*. However, there is no consensus among its followers that life begins at the moment of conception. Among the criticisms, it is claimed that human beings are distinguished from other beings by their self-awareness, and that the identification of the human being rests is in the brain, which controls all their vital.

This theory is quite radical, does not allow other interpretations, and seems to influence the legal world a lot in Brazil. Their supporters do not even consider the existence of surplus embryos, since they disapprove of all forms of artificial fertilization. This because this resource affects the personal dignity of the embryo by reducing it to an "object of technology," exposing it to unacceptable conditions, such as cryoconservation*(6)*.

- Genetic-developmental theory: Based on the Report of the Committee of Inquiry into Human Fertilization and Embryology, the Warnock Report, of 1984, which upholds "the moral status of the embryo only after birth"*(31:20)* and limits the embryo intended for research to 14 days after fertilization. Thereafter, it is possible to have cell division into identical embryos and generate the notion of individuality*(32)*.

According to this theory, before birth, the human being goes through specific stages essential to his development: pre-embryo, embryo, and fetus. Thus, the use of cryoconserved embryos should occur until the 14th day after fertilization, a phase in which they are still pre-embryos*(12)*. For their advocates, the absence of rights of the embryo does not mean ignoring them in all their ethical dimensions*(6)*.

According to the same Warnock Report, the destruction or disposal of surplus embryos as hospital waste, an option adopted in some countries, can only be the responsibility of human reproduction clinics in case of simultaneous death of both parents or if the cryoconservation period exceeds ten years*(33)*.

- Potential development theory: Advocates of this theory recognize "aspects of truth" in the two previous positions. However, they also consider that their statements are not sufficient in isolation. In

an eclectic view, this trend seeks to complement points that "seem contradictory" in them, avoiding serious misunderstandings.

For this theory, the embryo is a category that cannot be confused with having human characteristics, but also not only with being a heaps of cells. In this way, the embryo is not human, but its capacity to become human is not denied. Therefore, there must be a special and irreducible status for him*(6)*.

The discussions regarding this involve quite controversial aspects. More recently, insights arising from advances in cell biology have brought more questions about the potentiality of the embryo that can be seen in various perspectives and reasoning*(34:3)*.

Potentiality is a concept originated from the principles of potency and act, defined by Aristotle in the 4th century B.C. Such principles go beyond the meanings of motion: potency is the "principle of change in another thing or in the same thing" and act is principle that results from motion. "It seems that act is primarily motion*(35:396,403)*. Potencialidade —potential adjective plus the Latin suffix "dade", indicating quality or state— it involves the principle of *dynamis*, position or capacity, force of achievement, and updating to produce the being. Kottow*(36)*; Nunes*(37)* explains that potentiality is the ultimate expression of humanity, given that each human being is only in fact a person if he/she has the potential to express and modify his/her personality. Its inner dynamism is endowed with great power or possibility of development.

In bioethics, potency plays an important role in debates about the embryo. Conservatives attribute an ethical meaning to "the potential of the human organism," and liberals do not admit the coherence between the concept of embryo and its ethical meaning. But both sides agree on its natural potentiality*(38:1)*. The embryo can become human because it contains the necessary codification for the formation of a complete human being; it needs only the specific conditions for its evolution*(12)*. The properties inherent to the human person are already present in the embryo in a state of latency*(39)*.

Incidentally, Nunes opposes the idea that the concept of what constitutes a person is basically philosophical, not biological. For this reason, it is admitted that what is understood by the human person is "a virtuality that is slowly being defined in reality"*(37:1)* resorting to a potential for development that also evolves over time.

From the perspective of the embryo as a potential human person, three proposals regarding the fate of surplus embryos can be seen: disposal/destruction, use in scientific research, and storage in human reproductive clinics for possible donation to third parties. Discarding is a simplistic way to get rid of embryos and faces strong opposition. Use in scientific research has been found to contribute to the therapeutics of several diseases, mainly the degenerative ones. Donation to third parties is the least criticized option facing the absolute impossibility of procreating by natural means*(40)*. For Semião*(41)*, surplus embryos can be donated free of charge —as occurs legally with human organs— provided that the purpose is morally accepted according to the current consciousness of the human being. Leite*(6)* believes that the donation of embryos for research can bring two answers: with defined goals, it can promote the evolution of diagnostics and therapeutics, a positive answer; without defined goals, it can go against deotonlogy, a negative answer.

Teixeira and Oliveira*(42)* also take a position in favor of research, including with surplus embryos, in these situations: if it is demonstrated that the research will significantly increase scientific knowledge; if the knowledge cannot be obtained by other means; if the results will contribute to ensuring the life and health of other people; and if the projects are ethically approved and monitored according to bioethical principles. This is the case if the designers do not intend to use them, if there is no adoption project, or if the cryopreservation time does not exceed the expected time for uterine implantation.

Addressing the challenges facing the contemporary bioethics environment

The destination of surplus embryos also forms part of the Bioethics area, whose principles and aspects can subsidize the elaboration of the

embryo's status model. In this perspective, Nunes refers to Reisse*(43)* and states that, for Bioethics, "life is that property of matter resulting from the cyclic reactions of bioelements, and human life would be an isolated human cell, a cultivation of human cells, an organ to be implanted, a spermatozoon to be transferred *in vitro* (...)"*(44:29)*. This complex context of opposing thoughts, which demands from society new positions in the face of culture, but traditional in the face of history, is the "material" of contemporary Bioethics that tries to solve its challenges.

Bioethical concerns stem from problems relating to human interactions and biotechnological advances, and solutions must be based on "immanent" principles that are negotiated between moral agents*(45)*. In its work, Bioethics develops, in a rational and specific way, a particular practice that simultaneously moves experience, knowledge, and competence in a context of particular action. It is a "second order practice, which operates on first order practices"*(46:202)* in direct contact with determinants of the action of the bases of human existence.

At this moment, a new paradigm installed, scientific advances and the problems resulting from them indicate the emergence of "a new ontology of life accompanied by an epistemological change… It started with interventions in the blood, organ, then in the elements of reproduction"*(47:1690)* and other advances.

Bioethics is aware of this new ontology that involves either the most general properties of being without determinations that impair its full nature by qualifying it (Aristotelian sense) or the comprehensive sense of being and the possibilities of multiple existences, as opposed to the orientation of a common being with divine attributes (heiddergeriano sense)*(48)*, which also separates it from the difficulties of reaching, based on this, a consensus on the theme of surplus embryos.

If there are two ontological ways of being *homo sapiens* (as human beings and as people), questions arise concerning the moral *status of* each. With both being members of humanity, they must have a moral *status* that corresponds to all individuals, regardless of the specific characteristics of age, gender, or genetic endowment*(36)*. These two means of being homo sapiens seem to be contained in Heiddeger's definition that being (a category proper to the human) cannot be conceived without being (a presence that is distinguished from others and establishes relations with being itself). "Being is always the being of a being [...] what results as interrogated in the question of being is the being itself"*(49:32,35)*.

The interpretation based on this ontological conception makes life refer to the condition of being-in-the-world and determines the meaning it will objectively have. This makes Bioethics concrete*(50)*.

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The growing interest of Bioethics in the beginning of the lives of human beings as individuals has a very specific reason: human reproduction is not a conscious act, nor is it voluntary; it is a natural event, with its causalities, its inaccuracies, and, especially, with transcendent influences and metaphysical borders. The beginning of life has little importance for ethics and morality; the latter is perhaps attached to its beginning peripherally in relation to homo sapiens as a species. Bioethics considers the individualized beginning of life to be essential*(36)*.

From this perspective, what Bioethics needs, both for this historical moment in the West and for its area of work, is an ethical concept from the beginning of human life. Bioethical morality depends on that concept, as well as the decisions on the subject. However, like any other concept that implies essential decisions about the lives

of others, each ethical perspective will be truncated and morally suspect if it does not include and prioritize the values of those who are most directly affected*(36)*.

In times of conflict, morality is guiding the search for solutions, since "the description of reality, is always infected with evaluative and explanatory expectations"*(3:259)*. People therefore see it according to what they have in mind. Bioethics does not have a model of morality and does not aim to elaborate another social morality based on the particular morality. It avoids secular explanations that do not recognize the real diversity of moral perspectives.

In his research on the current paths of Bioethics, Engelhardt*(51)* concluded that the existing 2,500 years of philosophical reflections offer an insufficient basis for reality to maintain a morality that supports a consensual destination for the disposal of surplus embryos.

Conceptual issues and controversies find no solution in rational arguments and always return to the need for principles, to circular arguments, or to endless regressions. This seems to occur with the discussions on the definition of embryo and, consequently, with the solution to the fate of surplus embryos.

Human beings have always adapted to new scientific discoveries. In medicine, patients are now treated as consumers who opt for the treatments that can bring them greater well-being*(47)*. The bases for cultural diagnosis are other, and, therefore, it becomes difficult to understand and defend arguments when there is controversy about what is best and what is most viable for the whole.

Engelhardt*(52)* has identified views of contemporary morality in four aspects: *moral reflection* is characterized by intense disagreement and by conflicts; *moral dispute* is prominent and persistent, based on both old and contemporary moral reflections; *moral controversy* is persistent and impossible to solve y means of secular, rational, and logical arguments; a proclamation of consensus amidst disagreements, which is nothing more than statements in the name of such a morality, disregarding discussions and disputes .

The first three of these characteristics seem to respectively form the basis of discussions regarding the fate of surplus embryos: there are several disagreements regarding the concept of embryo and concepts that depend on it - conceptualist and genetic-developmental theories; the reflections lie between the traditional and the contemporary - conceptualist and potential developmental theories. And the issue does not seem solvable by secular arguments. However, it is logical to argue that embryos cannot go from being potential human beings one moment (to be implanted in the mother's womb and develop) to disposable leftovers the next (after leftovers from uterine implantation).

Thus, one realizes that Bioethics finds itself in a field of moral pluralism in which, although faith has generally been fragmented, convictions remain rooted. The disagreements are broad and range from issues such as a human reproduction until allocation of resources for research. Stable moral judgments are not shared, and this diversity is strategically ignored in order to try to implement a so-called common morality, which aims to direct policies throughout the world*(51)*.

In summary, in the scope of the plurality of moral views, contemporary Bioethics may have a solution in the figure of the "moral strangers", at least in relation to the fate of surplus embryos. This figure refers to the possibility of a "peaceful pluralism" in Bioethics. Engelhardt (2008), who coined this expression, defends the discovery of an essential secular morality for Bioethics through the identification of a point of interaction between all the differences, with dialogues capable of generating real contributions in contemporary society.

It would be a non-religious Bioethics, "almost secular, that is, detached from religious dogmas."Secularism, in turn, is the policy of separation between religion and State. Bioethics is under constant scrutiny and currently faces very different moral visions, obligations, rights and values, each one defending its priority"*(53:3)*. The morality of a secular Bioethics will not guide ways of living, but should be able to unite "moral strangers" in peaceful encounters and collaborations, state the authors.

For Bioethics, it is therefore assumed that finding solutions for the destination of surplus embryos will depend on the identification of a bioethical morality. On the other hand, the "proclamation of consensus" may be referred to using the fourth characteristic cited by Engelhardt*(52)* in contemporary morality as statements in the name of a certain morality, disregarding discussions and disputes. Until then, they are not verified in terms of the problem of the fate of surplus embryos.

Closing remarks

The effects of the changes that have been occurring over the last 40 years have been extensive, irreversible, and continuous, and have both destabilized certainties that guided theories and knowledge and modified the practical reality. A plural society has developed in several ways: cultural, religious, identity, ethnic, and morality, among others, that arise every day whenever science and technology advance. Society is also plural because it combines both the introduction of the new and the maintenance of the traditional.

With this, the area of interest of Bioethics has been extended, largely because general concerns involving humanity or large groups have also begun. Along with situations of specific conflicts, Bioethics, as a "practical ethics" that is initially focused on health and life sciences, has started to focus on conflicts and controversies resulting from the attempt to solve problems that refer to all, especially moral ones. If, on the one hand, its field has increased - by encompassing others - on the other hand, it has had to deepen through the need to understand the values and beliefs of plural society.

Discussions on the destination of surplus embryos is one of the issues involving values and beliefs regarding the new and the traditional, aspects that must be respected in the examination of solutions because they should not pass through the disregard of plurality in its different forms.

Therefore, the field of Bioethics encounters tensions in the search for answers that satisfy society as a whole. Therefore, the search of contemporary Bioethics for a secular morality can also represent a practical solution. The question is, what research is being conducted to achieve this?

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