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THE HUMAN EMBRYO – BETWEEN CHRISTIAN AND SECULAR TRADITION

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Abstract

The human embryo has been at the centre of bioethical debates for decades. This is due to the development of biotechnology, which allows man to interfere with life from the very beginning. In addition to scientific data, Christian ethics brings into question data from Revelation, which proposes a recognition of the human embryo in the fullness of its humanity. According to Christian tradition, the embryo develops *as a human being*, not to *become a human being*. The present study aims to present five arguments that support the previous statement, as well as an evaluation of the concept of “pre-embryo” from the perspective of Christian anthropology. The 5 arguments can be a framework through which the risk of technology absolutization can be re-evaluated. After all, not every compartment of human life needs a technical arrangement. Along with the first stages of intrauterine development, the issue of individuality arises, which brings together not only scientific results, but also metaphysical and ethical questions. In this research we used the historical-critical method, the hermeneutic method and the philological method.

Keywords: embryo, Christian Tradition, rational soul, individuality, creationism

I. Introduction

In every historical age in man dwelt the “fascination of origins.” The questions “where do I come from?”, “When did I start to exist?” or “Where am I going?” have always been part of the inquiries of human genius and sometimes were left unanswered. Like all historical periods, the 21st century has its own attempts to answer these questions. The human embryo is one of the bearers of the riddle of origins. It has been at the centre of contemporary debate, especially since in vitro fertilization techniques afford the creation of embryos in laboratories. This formidable technical possibility has allowed man to act on embryos since fertilization. The Christian tradition sheds light on the human identity of the embryo since fertilization, whose rays are represented by 5 arguments: moral, anthropological-philosophical, creationist, theological and Christological.

In Christian theology we speak of the moment of the animation, after which the full humanity of the embryo is no longer questioned. The presence of a rational soul created by God makes the embryo a human individuality (Congourdeau, 2007); however, this presence was seen sometimes at conception (immediate animation), at formation or at 40 days after conception (delayed or progressive animation).

A contemporary reverberation of this situation is when the embryo experiment becomes illegal (until May 2021, the 14-day limit was internationally recognized, which has begun to be questioned ever since) (International Society for Stem Cell Research, 2021). Another contemporary remark is the discussion about the pre-embryo and the stage of formation of the primitive streak: from which moment there is a change, a qualitative leap. As for the soul present starting from conception, a sign of this presence may be the diploid genetic lining of the zygote. Thus, this paper aims to present the 5 arguments of Christian

theology, arguments that can represent a direction of dialogue in the context of manipulation and use of the human embryo in new reproductive technologies.

II. The Christian tradition

Caring for life in the womb occupies an important place in Christian morality. Although this is an element that distinguishes it from other ethical systems, the process of creating a coherent and stable view of the status of the human embryo has gone through several stages over seven centuries. Certainly, there were also ‘islands of resistance’, with different emphasis in the Christian West and East. This is due to at least two factors: 1) The Holy Scripture does not offer a theory of the status of the human embryo, but only gives some insights on it, which leave room for many interpretations; however, they may form the basis of a Christian reflection on the identity and status of prenatal life; 2) In the field of prenatal anthropology, Christian authors are forced to resort to the intellectual instruments of their time (philosophy and medicine), which do not necessarily offer a unitary vision (Congourdeau, 2007).

II.1. The moral argument

Starting from a biblical background (Gen. 1, 26-27; 2, 7; 25, 23; Ex. 21, 22-23; Job 31, 15; Ps. 138, 13-15; Isa. 49: 1; 5; Jer. 1, 5; Luke 1, 15 and 41-44), the early post-apostolic Christian communities were forced to report to what was in the womb, yet not in dialogue with the philosophy and medicine of the time, but primarily on the moral level, meeting the Greco-Roman practices regarding the beginning of life (contraception, abortion, abandonment of new-borns).

The moral argument indicates that the human embryo can be considered a vulnerable neighbour to whom we are all the more obliged to fulfil the commandment of love. To love your neighbour as yourself involves recognizing and respecting his dignity, and at the same time, understanding his vulnerabilities and the mission he has received from God. In fact, this argument is the background to the other four arguments.

Christian morality refers to the way we live, as Christians, in the space of this world understood as the Church. Moral life involves a continual choice between good and evil. Good choices lead the Christian to the path of light to eternal life; instead, bad choices lead him down the path of darkness and death. In this way of life, one remains being obedient to the commandment of love. How must the commandment of love be kept? One type of answer is given in chapter 25 of the Gospel of Matthew: feeding the hungry and thirsty, dressing the naked, caring for the sick, and those in prison. In general, the early generations of Christians understood to apply the commandment of love through an ethic of nonviolence: not only did they disagree with the fighting in gladiatorial arenas, but they did not encourage the attendance of such spectacles (Athenagoras of Athens, 1972). Both the refusal of abortion and the infanticide were grafted onto this ethic.

The *Didache* or *The Teaching of the Twelve Apostles* refers to these two practices in two lines. The prohibition is quite clear: “You shall not murder; you shall not commit adultery; you shall not corrupt children; you shall not be sexually immoral; you shall not steal; you shall not practice magic; you shall not engage in sorcery; you shall not abort a child or commit infanticide” (*The Didache*, II, 2). It is important to emphasize the equivalence between abortion and infanticide that the text of the *Didache* seems to convey to us, by using the conjunction “οὐδὲ” (nor), which suggests an identity between the unborn child and the new born. Specifically, putting these two practices together demonstrates that the author considers them at least similar, if not identical acts (Barr, 2017). It would be a bit forced to talk about distinguishing the stages of intrauterine development, but keep in mind for our

discussion that *The Didache* uses the same term for both the unborn child and the new-born, “τέκνον” (*The Didache*, V, 2).

The principle that synthesizes the moral attitude towards the prenatal man derives from the context in which the interdiction we analyse is pronounced: it is about the implementation of the commandment “love your neighbour as yourself” (Mk 12, 31). The *Didache* begins with the assertion of the existence of the two paths, life and death, then defines the path of life through three characteristics: the love of God the Creator, the love of neighbour and the golden rule of morality: “do to others whatever you would like them to do to you” (cf. Mt 7, 12). Then comes the practical explanation of the “definition” above, including the prohibition of abortion. In other words, one of the Christian ways to practice the commandment “love your neighbour as yourself” is to refuse to have an abortion. Thus, the author uniquely links the concept of “agape-love” to the foetus, interpreting Jesus’s emphasis on compassion as an exhortation to protect the unborn child (Barr, 2017). The destruction of the frail body meant the destruction of the human person, so it was seen as an attack on the dignity of God, whose image (and therefore value) people carry (Ferngren, 2009).

The ban on abortion and infanticide is defined on the section on the path of death. As we can anticipate, the path of death is seen as a rejection of philanthropy and love and an acceptance of things that are “away from God.” Those who embrace the path of darkness do not show compassion for the poor or those in difficult situations, but rather support the interests of the wealthy. The author blames the killers of the children while rebuking those who do not practice philanthropy. The text describes those who walk on the path of death: “do not know the one who made them, are murderers of children, corrupters of God’s creation” (*The Didache*, V, 2).

First of all, abortion is condemned because it manifests a forgetfulness (or even a revolt) of man towards his state as a creature. The *Didache* addresses the issue of respect for life from the root. Man is not his own creator, but he is created by God out of love, so that the human being is not the master of his life or that of others. *The Wisdom of Solomon* 12, 5-6 summarizes the teaching of the Old Testament in this regard (Caspar, 2002).

Secondly, the text on abortion is flanked by references to vulnerable people in any society, then and now: “have no mercy for the poor, do not work on behalf of the oppressed”; the text analysed follows, then the sentences continue with “who turn away from someone in need, who oppress the afflicted”. We do not know for sure what the author intended, but the construction of the sentence allows us to understand an equivalence between carelessness, lack of care or oppression of the vulnerable (orphans, widows, the poor, the oppressed, etc.) and abortion or abandonment of a new born. This equivalence suggests that the status of “vulnerable person” can be “given” to orphans, the poor, widows, and unborn or new born children. There is an “identity of vulnerability” between these two categories, which means that they cannot defend themselves and they are most in need of the support and help of others (Popa, 2003). It is no coincidence that Christian theology has called blatant sins the oppression of orphans, widows, and the poor, as well as wilful homicide or murder.

For Tertullian († 220), belonging to Christ also excludes all forms of homicide: “But, with us, murder is forbidden once for all. We are not permitted to destroy even the foetus in the womb, as long as blood is still being drawn to form a human being. To prevent the birth of a child is a quicker way to murder. It makes no difference whether one destroys a soul already born or interferes with its coming to birth. It is a human being and one who is to be a man, for the whole fruit is already present in the seed” (Tertullian, 2008a, IX, 8). The sentence “To prevent the birth of a child is a quicker way to murder” announces the position of St. Basil the Great, according to whom the conviction of abortion is independent of the level of development of the embryo (Caspar, 2002).

The novelty of Tertullian is that he introduces a certain casuistry regarding abortion, admitting this practice in case of difficult birth, when the baby is crooked in the genital area and threatens the life of the mother: “Sometimes, unfortunately, a child is killed while still in the womb, because he is in such a position that delivery is impossible without causing the death of his mother” (Tertullian, 2008b, XXV, 4).

Tertullian is well aware of the cruelty of this process, describing it in detail and even naming it an instrument used in foetal extraction (“ἐμβρυοσφάκτης”), which indicates a good knowledge of the medicine of his time. That being the case, the legitimacy of abortion in this case does not preclude the reference to homicide. The embryo is indeed a living being (Tertullian, 2008b, XXV, 5).

II.2. The anthropological-philosophical argument

The anthropological-philosophical argument defends the coexistence of the human soul and the body from conception. The task of Christian writers was to develop a doctrine capable of justifying the rational and immaterial character of the human soul without denying its immanence in a body and its ability to give individuality to a single living being. Therefore, in Christian theology the status of the human embryo is linked to the presence of the rational soul from conception.

With this argument, a specific Christian anthropology begins to take shape. This specificity is related to the principle of the primary coexistence of soul and body, a principle that is not subordinated to biological processes. This principle is based on the explicit continuation of another principle: “the presence of the whole in the seed”. This idea belongs to the apologists of the second century (Caspar, 2002). Some philosophers (the Stoics, Aristotle) also spoke of an animation at conception, yet they acknowledged a vegetative soul, which had only the faculties of nourishment and growth, common to the vegetal world (Gourinat, 2008). For Christian theology, man is ontologically a compound of the soul and the body, both being imprinted by the relationship with the other and with the whole that they compose, that is, the human hypostasis. Tertullian appears to us to be the first Christian writer to say that life does not depend on the organization of matter (so important to Aristotle, for example), but is given from the very beginning independently of the biological contingencies of development (Tertullian, 2008b, XVII, 1-3). Of course, traducianism has afforded him a favourable framework for this conception, but we cannot fail to notice the leap he proposes in dialogue with the philosophy of that time.

St. Gregory of Nyssa († 395) will theorise the primary coexistence of the soul and body (*Homilies on the Song of Songs*, VII), showing that the soul is the active force that penetrates the material elements and constitutes them in a body, making it become a human body. The soul is not only present in one side of the body, but throughout the whole body (*On the Making of Man*, XII). This emphasizes the organic link between the body and the soul, a similar link to that of an artist and his musical instrument: the whole human body is made up as a musical instrument, and the artist (the soul) cannot show all the artistic capability if the poor quality of the instrument prevents him from doing so; in the body in good condition, the soul works harmonically according to the flesh, while, if the laws of nature are disturbed, the soul remains uncomfortable and helpless.

Thus, the activities of the soul manifest themselves “proportionately” (‘ἀνάλογος’) with the formation and completeness of the body. The whole man is the one who develops from the initial stage after conception. On this occasion, the Bishop of Nyssa refuses the thesis of a gradual animation, which would lead to different types of soul (vegetative, animal, human) at the same time. The same soul, the unique soul, is still from the beginning in the embryo, but its powers are gradually manifested, as the wheat grain which contains everything from the beginning (here we can see the influence the approach of apologists):

first the vegetative faculty manifests itself, then the sensitive, and finally, the rational one. The soul of the embryo is still hidden, for it cannot manifest itself because of the “smallness of its being” and when it does, it only happens in a certain way (*On the Making of Man*, XXIX). There is a relationship whose nature cannot be specified, between one’s development and the manifestation of the other: the soul remains at an imperfect “form of manifestation” in an imperfect body, and progresses towards a perfect one in a perfect body (*On the Making of Man*, XXX). In the first stage of the increasing embryo, the power of growth and feeding shows, then sensitive life blossoms, after which the rational faculty gradually reveals itself. Thus, the soul builds itself a proper dwelling place, with the help of matter (*On Making of Man*, XXIX). This vision allows St. Gregory to reject a succession of souls against the ancient philosophers; for him, a single spiritual principle makes a man, from the embryo stage, neither plant, nor animal and leads him in time to the only purpose of the likeness of God (Canévet, 1992).

Saint Maximus the Confessor (†662) completes this argument showing that, as each limb is part of the body, so the body and the soul are parts of the whole man, which come to existence at once. The soul and the body have an identity through the reason of the hypostasis, the one that complemented them by union and none existed before this union (*Ambigua*, 7). As Dumitru Stăniloae observes, the unity between the soul and the body is maintained by the mutual imprint of each other. The soul has the possibilities of organizing matter in its own body and their manifestation through this body organized by matter; matter has a certain rationality and ability to plasticize the “movements” of the spirit (Stăniloae, 2010).

It is important to note that St. Maximus develops from this primary coexistence of the body and the soul a teaching about continuing coexistence, even after death: the soul remains in a spiritual connection with the elements in which the inanimate body is decomposing (*Ambigua*, 7). The soul keeps the virtualities of the body in it even after death. The human body persists as virtuality in universal matter after its death, as well, and the soul keeps the virtualities of life in the flesh, with their results achieved in life; it remains in relation to the matter of the universe and has the faculties of the reconstruction of a body (with the image of the body from earthly life) at the time of resurrection.

The soul does not come in the body as something already formed, and can associate with no matter what body. It occurs from the beginning, bearing a certain potentially excessive form of the body in it. Even from the first occurrence, it is united with the potential shape of its corresponding body. The message transmitted by this argument over the centuries is that the embryo must be understood as a growing human whole.

II.3. The creationist argument

The Creationist argument explains the anthropological-philosophical argument. It refers to the fact that God creates a new soul with every conception. At the heart of this argument is the biblical text from John 5, 17: “My Father is always work at his work to this very day, and I too am working.”

The soul is exclusively the creative work of God. What is incorporeal and immortal can only come from the source of incorporeality and immortality, that is, from God. The body is conceived by parents, but not without the involvement of God. The formation of the embryo in the maternal womb seen as a divine creation is a biblical teaching (Is. 44, 2 and 24; 49, 5; Jer. 1, 5; Ps 138, 13-16). This synergy between God and man in bringing a new man to being defends the goodness of procreation. The act of union between man and woman is the opportunity for God to bring a new personal human life on the world’s scene. Lactantius († 325) shows that beyond the conjugal act, the work of the Creator begins: since then, the rest is entrusted to God, i.e., the conception, the shaping of the body, the insufflation of the soul, a

happy birth, and all that is important afterwards in order to maintain man in existence (*The Workmanship of God*, 19, 3-5). Lactantius thus reaches a presence of God in the constitutive intimacy of the human being, a whole being conceived by a divine creative act from its biological conception.

Another Christian writer, Jerome († 420), uses a verse from Eccl. 12, 7, in which he is talking about the return of the body to earth as it was, and the soul to God, who gave it, to criticize those who believe that souls are sown with bodies and are not shaped by God, but conceived by bodily parents. Following a logical reasoning, if the body returns to dust, and the soul returns to God, then it is clear that God is the “father of souls”, not people: “Deum parentem animarum esse, non homines” (*Commentary on Ecclesiastes*, 493).

As a counter-argument, the case of animation of the fruit of an adultery or incest can be brought into play. If the soul comes from God, won’t we reproach the Creator that He acknowledges such facts or is part of them? Methodius of Olympus († 311) and Jerome find a pertinent response.

The former answers through a parable: man’s coming into the world is painted around the building of a house, whose entry is located near high mountains; the opposite side has many windows; inside the house there is a craftsman who works on statues; clay is supplied from outside through windows by several people; people do not see the craftsman because clouds and fog cover the house, they only see the windows; each worker who brings clay can look through a single window; if someone is curious to open the window of another, he is threatened with fire and the whip; the craftsman passes from one window to another, tightens the clay he finds and works with it, and after a few months he gives it to the ones outside through the same windows; the craftsman is ordered to process all the clay which is good for shaping, even if one part was introduced by someone through a window that does not belong to him – the matter is not to blame, but the one who introduced, through the window, the material that does not belong to him, disobeying the command given; the clay should not be condemned, but the one who made that unrighteous deed. The entrance of the building suggests the descent from heaven and sending souls into bodies; windows refer to the female sex; the workers who bring the clay are men’s representatives; The craftsman symbolizes God, whose power shapes us, people, on the inside, without being seen, making “clothes” for the souls by using human nature in the procreation process. Thus, if the iniquity takes place (i.e., adultery), guilty is not the craftsman (God, who shapes the embryo in the mother’s womb), but the one who introduced clay (male seed) through a window (female) that does not belong to him. The image is illustrative, the innocence of the craftsman is perfectly proven (*The Symposium*, II, 4-5).

The latter, Jerome appeals to the classic parallel to earth sowing. As in the case of seeds, the feeding earth does not sin, neither the seed that is thrown into the furrows, nor the heat and moisture, under the influence of which the beans burst into buds, but man, thief and bandit, who, by deceit and violence, abducts and sheds the seed; also, at the birth of men, the womb, which corresponds to the Earth, receives what belongs to it, nourishes what it has received, and then gives a body to the one it nourishes and differentiates from the limbs and organs, the formed body (*Against John of Jerusalem*, 22).

II.4. The theological argument

The theological argument is due to the thought of St. Maximus the Confessor. He shows that before being, all creatures have a *logos* from God that defines them as what they are through nature. In the case of man, we can talk about the *logos* of genesis¹ as referring to being composed of rational soul and the body. The doctrine of *logos* is complemented by

¹ γένεσις – origin, genesis, creation, making.

tropos, which in the case of generation² or the birth of man refers to the conception by a man and a woman. *Logos* refers to the definition of human nature, and *tropos* to its coming to a concrete existence. However, this double *logos/tropos* can be applied to the distinctive origin of the body and the soul: the soul is from the divine and life-making insufflation, and the body is made up with the soul in the substance of the matter from which it originates (*Ambigua*, 42).

The conception of the body and the creation of the soul is a pair of unseparated acts, resulting in the human person as a perfect unit. St. Maximus the Confessor is aware that at this point of the argumentation an objection raises: even if a soul (or vital principle) is needed for the development of the embryo, it is not mandatory to see a rational soul in it. It is a classic objection in philosophical thinking since antiquity, which our author is well aware of. Assuming that his opponents are forced to admit a vital soul in the vegetal world and a sensitive soul in the animal world (vegetative and animal souls in Aristotle) and, therefore, even more in man, as a support for vital power, they are asked what they understand by this soul present from the beginning in the human embryo. If they answer it is a nutritional and causative soul of growth, as in plants, it means they would understand man as a father of a plant, not of another man; Instead, if they answer that the soul present in human embryo is endowed with animal feeling (sensitivity), then they make man father of an animal, not of another man (*Ambigua*, 42).

To say that when it comes to existence, man lacks something pertaining to his pre-existing *logos* in God (for example, thinking that man does not have a rational soul since conception) means to descend either the prescience of God (which provided something that does not come to achieve itself) or His almightiness (He cannot accomplish what He has intended), and in any case dissociate these two divine attributes (Larchet, 1998). God knows beforehand the creatures in their fullness, meaning that He has to bring them to their existence in the same completeness. God does not conceive sides in man since forever, but he conceives man as a whole. The integrity of man at the beginning of his existence is linked to his pretemporal thinking by God.

II.5. The Christological argument

The Christological argument refers to the fact that, for our salvation, the Son of God has assumed from His conception as man, the full human nature (flesh and rational soul) and has passed the stages of His formation as a human embryo. The background of this argument is given by the teaching of St. Gregory the Theologian, which shows that “The unassumed is the unhealed, but what is united with God is also being saved” (*Letter* 101, 5, p. 158). The context in which this principle is proposed is the fight against Apollinarism, which claimed that the incarnation of the Son of God did not involve the assumption of the human mind (νοῦς). St. Gregory emphasizes the fact that the Son of God joins everything that is human, without mingling, except for sin, to save the whole man. The Word of God is “body, soul, mind, all that death pervades” (*The Fourth Theological Oration*, 21, p. 111). Who does not confer that the Son has been placed in the womb of the Virgin Mary is deprived of God, both in a divine and human manner – because it was without the action of a man – χωρὶς ἀνδρός and human – because it was through the Law on the pregnancy – νόμῳ κυήσεως³ (*Letter* 101). In another place, he supplements that He had undergone the law to have a mother (μητρὸς νόμῳ), but not the law of generation or birth - νόμῳ γεννήσεως (*The Fourth Theological Oration*, 21).

² γέννησις – generation, production, coming into existence, birth.

³ Κύησις means pregnancy and conception, and κύημα designates what is conceived, embryo or foetus.

The Christological stake of the identity of the human embryo is much cherished by St. Maximus. To say that at the moment of his conception, man is only a soul-free, human body means that Christ has assumed only the body since conception, subsequently receiving the soul by means of the body (*Ambigua*, 42). Yet Christ assumed both of them inseparably, though, given the foundation position of the soul in relation to the body, it can be said that the body was received through the soul, as in the ordinary man the body is formed by the power of the soul (Stăniloae, 2010). If during conception Christ is the perfect God and man, then this confession of faith is used by St. Maximus as an argument that the human embryo is animated from conception, according to the image of the Son of God made Man.

The Christological argument finds a poetic expression in the text of the Annunciation (March 25th), which once again confirms that the conception means the beginning of a full human life, even if in development; synergy between God and man revealed by conception is the founding event of a new personal human life, an event calling for liturgical celebration and contemplation: “Today is the beginning of our salvation and the revealing of the eternal mystery. The Son of God, the son of the Virgin is made and Gabriel brings the good tidings. For this, along with him, we are to shout to the Mother of God: Rejoice, the graceful one, God is with you” (The Troparion of the feast). This hymn which is centuries old clearly indicates that the beginning of the salvation of man did not occur when Jesus was born or when the foetus became “viable” in the womb; salvation began at the moment of His wonderful conception (Televantos, 1998).

III. The pre-embryo and Christian Anthropology

The concept of “pre-embryo” played an important role in formulating counter-arguments in the individuality of the embryo as a body from conception and establishing the “14-day” rule allowed for manipulation and, in fact, the destruction of the embryo (Ford, 1991). The term was used for the first time in a scientific article by Clifford Grobstein (1979). Then it was taken over by embryologist Anne McLaren. She claims that up to about 14 days after fertilization everything that happens is simply a preparation of the protection and nutrition systems required for the future needs of the embryo. Indeed, only on the 15th day after fertilization, when the primitive streak is obvious, there is a defined spatial entity, called embryonic disk, from which “a foetus develops directly into a baby.” This is precisely the reason for using the term “pre-embryo” to indicate the human embryo at the time of fertilization until the 14th day of development (McLaren, 1986).

Given the above, we need to define what an organism is. The basic level of the organization of living nature is the cell, the “lower organism” (Goldstein, 1995, p. 24). All living things, from the simplest to the most complex, consist of one or more cells and come from one or more pre-existing cells. In addition to the simplest case of unicellular beings (bacteria, blue algae and most protists), in which the single cell represents their mode of existence from reproduction to death, the multicellular living being is acknowledged by biologists as having an individual form that constitutes and identifies it throughout life. This individual form is called *organism*, i.e., a life form that represents the integration, coordination and final expression (phenotype) of the structures and functions of a living being, which make it “this” unique living being and “not another one” of the same species. Even if the fully developed form of the organism is reached only in the mature phase of the life cycle (in adulthood), the organism still exists from the beginning of the cycle itself (from generation) and it is the basis of the uniqueness of every living being. Each sexually reproducing multicellular organism begins its life cycle as an organism consisting temporarily of a single cell (unicellular embryo, zygote) and then several cells (multicellular embryo). But their seemingly simple biological structures do not make the unicellular embryo identical to any of the cells of the human body or the multicellular embryo equivalent to a

group of somatic cells (Lee, 2004). From the beginning it is already an organism – and not a cell or a mass of cells – due to its incipient life cycle which is the definite expression of the integration and coordination of all its cells at different levels of its progressive morphological and functional formation (cells, tissues, organs and apparatus or systems) in space and time (Serra & Colombo, 1999). Therefore, when we speak of the beginning or end of (human) life, we strictly refer to a (human) organism, and not to a cell or species, because the organism does not pre-exist at the beginning of its life cycle.

If man is a distinct indivisible organism, that is, an individual, then an objection may be raised as to the individuality of the “pre-embryo.” By the 14th day after fertilization, the “pre-embryo” is divisible, as evidenced by the existence of monozygotic twins. Therefore, one could speak of the existence of individuality only after overcoming the possibility of twinning. If a new human individual begins his life cycle at fertilization, then how can it be explained philosophically and theologically that, in the case of detachment due to the twinning process, one individual can become two? How can an entity be considered human if its individuality is not secure?

The problem of twins from the same zygote is also one of logic and metaphysics, that is, the relationship between the initial individuality and the succeeding individualities. In this sense, the question posed by the opponents of the human individuality of the “pre-embryo” is this: if the “pre-embryo” is, indeterminately, either one or two human beings, how can it be a human being *in any way*? (Moldovan, 2013)

The argument related to the issue of monozygotic twins mistakes inseparability for indivisibility: an individual is characterized by his individuality (in act), not by his indivisibility (in potency): what is divided is not an individuality but the organism, and more precisely, the material of the organism (Moldovan, 2013). In addition, the issue of monozygotic twins is presented as a separation of the embryo in two. If the split occurs during cleavage - for example, if the two blastomeres produced by the first division are being separated - monozygotic twins blastomeres will be implanted separately, as will dizygotic blastomeres and will not share foetal membranes. Alternatively, if the twins are formed by splitting the inner cell mass into the blastocyst, they will occupy the same chorion, but will each be surrounded by an amniotic membrane and use separate placentas. Eventually, if the twins are formed by splitting a bilaminar embryonic disc, they will occupy the same amnion. In rare cases, such twins may not separate completely, resulting in the birth of Siamese twins (Schoenwolf et al., 2015).

Therefore, it is not an embryo that becomes two, but one that comes from the other. Christians may refer to a richly biblical symbol of Eve’s creation on the shores of Adam (the rib, as a metaphor for the heart, is a fragment that contains the whole): “Before we say *one* becomes *two*, we must emphasize that the initial zygote lives after the separation of one of the twins” (Ide, 2008, p. 175).

Thus, the potential of the embryo to twin is only sometimes accomplished, which means that the embryo does not have an intrinsic tendency to become twins. Otherwise, it would mean that only an “accident” prevents it from twinning. However, according to all available knowledge, it is the twinning that is determined by a combination of circumstances having the character of an “accident” or an “error” (for example, a mitotic crossing-over phenomenon that occurs between the fourth and seventh day after fertilization), genetically or environmentally induced (Silva et al., 2011; McNamara et al., 2016), which leads to the detachment of a new “entity” from the “first”, i.e., from the one that initiated this detachment (Serra & Colombo, 1999). Therefore, it seems very reasonable to say that there is a first human being from which a second human being comes. On the contrary, we can hardly say that an indeterminate “system” becomes two definite “systems.”

Also, the assertion that there is a “first” human being who will continue his own path and a second human being who comes from the first and then also continues his independent course, finds strong confirmation in recent research (Chang et al., 2017). The most amazing cases are when one of the monozygotic twins has a karyotype with 47 chromosomes and is affected by Down syndrome, while the other twin has a normal karyotype with 46 chromosomes. The first subject – the zygote – can be considered either a normal chromosomal one or trisomic-21. Abnormal segregation of chromosome 21 could lead to a 21-trisomy line in the former case and a normal line in the latter. It is obvious that in both cases the first individual continues his own course of development, while the second begins his own life cycle as soon as the new plan becomes independent of the first (Macatangga et al., 2016; Dahoun et al., 2008).

This solution of considering that one of the twins is identical to the original zygote, and the other begins its existence only with the separation of that all-powerful part from the initial individual forces us to distinguish between fertilization and conception: most human beings would begin their existence at fertilization, but some of them would start their existence later, “detaching” from the first for certain reasons. Therefore, every fertilization would be a conception, but not every conception would be a fertilization (Suarez, 1990).

The insistence of Christian anthropology on the *beginning* of prenatal life is motivated by a decisive argument for its position on the status of the human embryo: as soon as we have a body, i.e., a biologically active organism, we assume the *coexistence* of a rational soul, regardless of the degree of manifestation through the body of all the faculties specific to this soul and of the possibility of the external, empirical finding of these changes.

The importance of this anthropological vision should be highlighted in dialogue with the ethical positions specific to materialist reductionism, which know nothing about the existence of any soul because it cannot be identified empirically since it is immaterial by definition. Only on the basis of proving the existence of an individual body, through biological arguments, and the premise of the permanent coexistence of body and soul, theologically justified but impossible to prove empirically, can we support the ‘full’ humanity of the embryo from conception.

IV. Conclusion

The Christian tradition has revealed to us that the embryo can be seen as a *complete* human being, to whom we are obliged to react with love, respecting its life and dignity. But what does this *completeness* mean? Fulfilment in all respects? The anthropological-philosophical argument ensures that the prenatal stage is an integral part of human nature: there is no human being who does not begin in life through conception and who does not go through this stage. However, it is obvious that this *completeness* coexists, so to speak, with an *incompleteness*. The embryonic phase of human development is not the last, it does not represent the finality or *fulfilment* of human existence even in this world. Thus, completeness refers to the ontological constitution of the embryo (rational body and soul from the beginning). The rational soul is no less present in the embryo than in an adult. On the other hand, incompleteness refers to the updating and manifestation of biological, psychological and spiritual faculties, a process that is structured by a *certain epigenetic paradigm of individuality*: the coordinated, unitary, continuous and gradual emergence of its forms from previous stages.

References

Athenagoras of Athens (1972). *A plea for Christians*. Edited and translated by William R. Schoedel, Oxford Early Christian Texts. Oxford: Clarendon Press.

- Barr, J. (2017). *Tertulian and the Unborn Child. Christian and Pagan Attitudes in Historical Perspective*. London and New York: Routledge.
- Canévet, M. (1992). L'humanité de l'embryon selon Grégoire de Nysse. *Nouvelle Revue Théologique*, 114 (5), 678-695.
- Caspar, P. (2002). *L'embryon au II-ème siècle*, Paris: L'Harmattan.
- Chang, Y.L. et al. (2017). Monozygotic twins discordant for trisomy 21: Discussion of etiological events involved. *Taiwanese Journal of Obstetrics and Gynecology*, 56 (5), 681-685. doi: 10.1016/j.tjog.2017.08.019.
- Congourdeau, M.H. (2007). *L'embryon et son âme dans les sources grecques (VIe siècle av. J.-C.-Ve siècle apr. J.-C.)*. Centre de recherche d'histoire et civilisation de Byzance, Monographies 26. Paris: Association des amis du Centre d'histoire et civilisation de Byzance.
- Dahoun, S. et al. (2008). Monozygotic twins discordant for trisomy 21 and maternal 21q inheritance: A complex series of events. *American Journal of Medical Genetics Part A*, 146A (16), 2086-2093. doi: 10.1002/ajmg.a.32431.
- Ferngren, G. B. (2009). *Medicine & Health Care in Early Christianity*. Baltimore: The Johns Hopkins University Press.
- Ford, N.M. (1991). *When did I begin? Conception of the human individual in history, philosophy and science*. New York: Cambridge University Press.
- Goldstein, K. (1995). *The organism: a holistic approach to biology derived from pathological data in man*. New York: Zone Books.
- Gourinat, J.B. (2008). L'embryon végétatif et la formation de l'âme selon les Stoïciens. In L. Brisson, M.-H. Congourdeau & J.-L. Solère (Eds.), *L'embryon: formation et animation. Antiquité grecque et latine, traditions hébraïque, chrétienne et islamique* (pp. 59-77). Paris: Librairie Philosophique J. Vrin.
- Gregory of Nazianzus (2002). *On God and Christ. The Tive Theological Orations and Two letters (101-102) to Cledonius*. New York: St Vladimir's Seminary Press.
- Gregory of Nyssa (2012). *Homilies on The Song of Songs*. Translated with an Introduction and Notes by Richard A. Norris. Atlanta: Society of Biblical Literature.
- Gregory of Nyssa (2016). *On the making of man*. New York: Aeterna Press.
- Grobstein, C. (1979). External human fertilization. *Scientific American*, 240 (6), 57-67. doi: 10.1038/scientificamerican0679-57.
- Ide, P. (2008). ¿Es el embrión humano una persona? Estado de la cuestión y determinación. In Elio Sgreccia & Jean Laffitte (Eds.), *El embrión humano en la fase de preimplantación. Aspectos científicos y consideraciones bioéticas. Actas de la duodécima asamblea general de la Pontificia Academia para la Vida (Ciudad del Vaticano, 27 febrero-1 marzo 2006)* (pp. 141-182). Madrid: Biblioteca de Autores Cristianos.
- International Society for Stem Cell Research (2021). *ISSCR Guidelines for Stem Cell Research and Clinical Translation*, version 1.0, may 2021. <https://www.isscr.org/policy/guidelines-for-stem-cell-research-and-clinical-translation/sections/acknowledgements> (12.12.2021).
- Lactantius (1965). *The Workmanship of God*. The Fathers of The Church. A New Translation (vol. 54). Washington, DC: The Catholic University of America Press.
- Larchet, J.C. (1998). *Pour une éthique de la procréation. Éléments d'anthropologie patristique*. Paris: Le Cerf.
- Lee P. (2004). A Christian philosopher's view of recent directions in the abortion debate. *Christian bioethics*, 10(1), 7–31. <https://doi.org/10.1080/13803600490489834>.

- Macatangga, M. et al. (2016). Monozygotic monochorionic twins discordant for trisomy 21: A reason to evaluate both fetuses. A case report. *Journal of Reproductive Medicine*, 61 (3-4), 3-4, 167-170.
- Maximos the Confesor (2014). *The Ambigua. On Difficulties in the Church Fathers*. Edited and Translated by Nicholas Constatas. Cambridge: Harvard University Press.
- McLaren, A. (1986). Prelude to embryogenesis. In Gregory Bock & Maeve O'Connor (Eds.), *Human Embryo Research: yes or no?* (pp. 5-23). London: The CIBA Foundation.
- McNamara, H. C., Kane, S. C., Craig, J. M., Short, R. V., & Umstad, M. P. (2016). A review of the mechanisms and evidence for typical and atypical twinning. *American journal of obstetrics and gynecology*, 214(2), 172–191. <https://doi.org/10.1016/j.ajog.2015.10.930>.
- Methodius of Olympus (1958). *The Symposium*. Ancient Christian Writers (vol. 27). New York: Paulist Press.
- Moldovan, S. (2013). *Eseuri de bioetică*. Sibiu: Editura Astra Museum.
- Popa, G. (2003). *Introducere în Teologia Morală. Principii și concepte generale*. Iași: Trinitas.
- Saint Jerome (1879). *Against John of Jerusalem*. Patrologia Latina 23, 389C – 390A.
- Saint Jerome (2012). *Commentary on Ecclesiastes*. Ancient Christian Writers (vol. 66). New Jersey: Newman Press.
- Schoenwolf, G.C. et al. (2015). *Larsen's human embryology*. Philadelphia: Churchill Livingstone.
- Serra, A., & Colombo, R. (1999). Identity and Status of the human embryo: the contribution of biology. In Juan De Dios Vial Correa & Elio Sgreccia (Eds.), *The identity and status of the human embryo* (pp. 128-177). Pontificia Academia Pro Vita, Vatican: Libreria Editrice Vaticana.
- Silva, S., Martins, Y., Matias, A. & Blickstein, I. (2011). Why are monozygotic twins different?. *Journal of Perinatal Medicine*, 39 (2), 195-202. <https://doi.org/10.1515/jpm.2010.140>.
- Stăniloae, D. (2010). *Teologie Dogmatică Ortodoxă*, vol. I. București: Editura Institutului Biblic și de Misiune Ortodoxă.
- Suarez, A.e (1990). Hydatidiform moles and teratomas confirm the human identity of the preimplantation embryo. *Journal of Medicine and Philosophy*, 15 (6), 627-635.
- Televantos, FR Anastasios (1998). *The orthodox patristic teaching on the human embryo and the ethical repercussions on abortion and related issues*, [Master's thesis, Durham University]. <http://etheses.dur.ac.uk/4865/>.
- Tertullian (2008a). *Apology*. The Fathers of The Church. A New Translation (vol. 10). Washington, DC: The Catholic University of America Press.
- Tertullian (2008b). *On The Soul*. The Fathers of The Church. A New Translation (vol. 10). Washington, DC: The Catholic University of America Press.
- The Didache. The teaching of the Lord to the Gentiles by the twelve apostles* (2007). Edited and translated by Michael W. Holmes, The Apostolic Fathers, Greek Texts and English Translations. Grand Rapids, Michigan: Baker Academic.