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Understanding Creation and Scientific Explanation of the Origin of Life in a Contemporary Pastoral and Catechetical Context

Abstract: One of the most relevant questions regarding the relation between faith and science is the question of the theological comprehension of creation and the scientific explanation of the beginning of life on Earth. In a certain sense, the understanding of evolution is related to that question. In regard to the theological discourse, the understanding of the Biblical concept of creation is of primary importance. The comprehension and the manner of interpretation of these realities are very important for the image of God and the Church in the eyes of the world, and for the purity and the quality of faith as well. This is why the question of the understanding of creation and of the scientific position regarding the origin of life on Earth is of primary importance in the pastoral and catechetical activity of the Church today. In this paper, we are trying to touch on the main theological and scientific issues, which are important for this understanding today in order to help the whole pastoral (and especially catechetical activity) to find appropriate ways to a concrete interpretation of some of the main Biblical concepts and of their transmission. It is also important to find an appropriate way of understanding this interpretation in relation to results of scientific discoveries.

Key words: creation, science, evolution, pastoral, catechesis

Povzetek: **Razumevanje stvarjenja in znanstvene razlage izvora življenja v sodobnem pastoralnem in katehetskem kontekstu**

Eno najbolj aktualnih vprašanj v odnosu med vero in znanostjo je vprašanje teološkega razumevanja stvarjenja in znanstvene razlage začetkov življenja na Zemlji. V določeni meri je s tem vprašanjem povezano razumevanje evolucije. Kar zadeva teološko govorico, je temeljnega pomena razumevanje biblijskega pojmovanja stvarjenja. Razumevanje in način interpretacije te stvarnosti je zelo pomemben za podobo Boga in Cerkve v očeh sveta, prav tako za čistost in kakovost vere. Zato je vprašanje razumevanja stvarjenja in znanstvenega stališča glede začetkov življenja na Zemlji temeljnega pomena v pastoralni in katehetski dejavnosti Cerkve v današnjem času. V tem prispevku se poskušamo dotakniti

poglavitnih teoloških in znanstvenih vprašanj, ki so pomembna za omenjeno razumevanje v današnjem času, da bi celotni pastoriali (predvsem katehetski dejavnosti) pomagala najti ustrezne načine za konkretne interpretacije nekaterih poglavitnih biblijskih pojmov in njihovo posredovanje. Pomembno je tudi najti primeren način za razumevanje teh interpretacij v odnosu do rezultatov znanstvenih odkritij.

Ključne besede: stvarjenje, znanost, evolucija, pastoral, kateheza

1. Introduction

The understanding of creation and the origin of life on Earth is of primary importance to the relation between faith and theology to modern science. This relation has a history of many good intentions and attempts at collaboration, but also one of intensity and misunderstanding. Even today we still cannot say that we have a very good understanding of these realities taken together and of their ties. This is especially true if we take into consideration the concrete pastoral and catechetical activity of the majority of Christian pastoral and catechetical subjects today. The same can be said of certain domains of theology and of the popular circles like some popular faith magazines, some popular faith books, etc. Still, we have to admit that there are some important differences here. For example, there is a difference in some European countries between the catechesis in the parish and education in faith in the school where these issues are considered very precisely. There are differences regarding the richness of resources and models of catechesis between countries, as well. (Garmaz and Scharer 2010, 163–164)¹ Here we cannot undertake the whole framework of problems regarding these themes, but we will point out some of the main issues in order to help the theological understanding of these realities and the concrete pastoral and catechetical activity of the Church today. This endeavor is important especially for the contribution regarding the content of education and of the manner of transmission, which is one of the primary questions here, such as the claim of the experts for the catechesis. (164; 170–171)

This last element is very important because it is this element that influences the image of God and in a certain sense the acceptance of the Church today, especially regarding the world of culture and of science. In fact, with the issue of understanding creation is strictly linked the problem of a misunderstanding of the Bible (Vranješ 2013, 347–348), as well as of fanaticism and fundamentalism in Christian circles today, and these appearances represent one of the most important reasons for many people to keep a distance from the Church (2017, 115–116). That is why we need a different and new approach to these realities, especially in the catechesis. We need to elaborate these realities using a different language, and first of all, try to obtain a different mentality regarding themes of evolution,

¹ We consider here the situation in Germany, Austria, and Croatia.

of the scientific facts related to the beginnings of life on the Earth, etc. This new approach means an effort of constant and deep theological insight and capability of Christian teaching which is capable of bringing closer the treasure of faith and theology to the people today at every level of catechesis and in an appropriate way for each person. Because of that, we need to stress the main elements of this discourse in order to propose them for a different pastoral and catechetical transmission.

2. The concept of creation

This is a concept with a very rich and complex history of understanding.² In the last few decades in theological circles, this Biblical concept has been understood in different ways, some of which were at the very margin of true theological understanding. In fact, some were so drastic that even some prominent authorities of the Church at the time were forced to intervene in order to advise on the right direction of the theological and philosophical investigation. As the cardinal, Joseph Ratzinger warned of some tendencies in theology that want even to eliminate the concept of creation from the theological discourse (2008, 17). On the other hand, many theologians even today think of creation without acceptance of a dynamical, evolutionary picture of the world,³ and the pastoral and catechetical context is full of examples of a literal understanding of the Biblical reports of creation and of fallacies of creationism and intelligent design theory which leaves some devastating consequences in the field of education of the faith,⁴ and in other areas, especially in the area of the dialogue of the Church and the world of science.

All of this shows that the very first issue regarding the understanding of the relation between creation as a concept of faith and the scientific elements regarding the origin of life on Earth is the correct comprehension of creation as a theological concept. Just such correct comprehension means that creation is theological: not a scientific concept. (Vranješ and Miletić 2013, 485–487) The Catholic understanding of this concept today in this theological sense is strongly under the influence of theological reasoning about the relation of science and faith, which was indicated in the documents of the Second Vatican Council, and especially in the teaching of the Popes from John Paul II until Pope Francis.

The Second Vatican Council opens a different perspective on the relation of the Church with the world of science. It is the perspective of the respect of the due autonomy of scientific investigation and its methodology: if that means the respect of the proper areas and rules of investigation and of the moral order. In doing so, science does not provoke any real conflict with the faith. (GS, §36) The real

² The main elements of this history – especially the elements of the teaching of Saint Augustine and later of the Saint Thomas Aquinas, and also the whole frame of the context of the discussion of faith and evolution until the Second Vatican Council – are described in Brancaccio 2016.

³ Many other theologians warn on this as of a serious problem (Bižaca 2010, 124).

⁴ Some specific warnings on that issue is possible to find in Vranješ and Miletić 2013, 467–469.

problem in this sense represents the ideologization of science, today especially by means of metaphysical naturalism.

Pope John Paul II opens some new doors in the dialogue with the world of science regarding the theological concept of creation and its teachings, and also the scientific concept of evolution. Considered here especially is his concept of the »ontological jump« (*salto ontologico*) from his popular message to the Pontifical Academy of Science of 1996 (1997, 188–189). This concept regards the creation of man in the sense that this event is understood as something ontologically different in respect to all the living world. In scientific terms, we speak of physical continuity, but in an ontological sense, we have to accept the discontinuity. The Pope speaks of the concept of evolution as something which is much more than a mere hypothesis. A serious problem for John Paul II is the ideologization of this concept that should be overcome by the scientific community in order to perform a real scientific investigation. (Bižaca 2010, 121–123)

It is also important to stress the element of the teaching of this pontiff which considers creation as occurring prior to evolution and especially the concept of the »*creatio continua*« by which he understands the possibility of the consideration of God's guidance of history and evolutionary phenomena (2010, 123). The specific contribution of this teaching, that is recognized today as something very valuable in the understanding of creation as a theological concept, is the comprehension of the ontological jump as a term that speaks also of man as a creature which is in specific relation to God the Creator (Brancaccio 2016, 56–57). It is this very concept of relation with God that defines man as man.

»It is the ontological relationship with the Creator that constitutes the essence of the »jump« and not a supernatural intervention that breaks the continuity of biological evolution and the natural laws that describe it.« (57)

Therefore, this jump regards the order of relation; it happens in this order (81).

On the basis of this teaching, we can understand that the specificity of the man described in the Book of Genesis as a being created »in the likeness of God« (Gen 1:26) is in the special relation which God creates with the man. In this relation is the theological root of the definition of man and of his dignity. This is not, of course, the only aspect of man's definition, but it is one of the fundamental elements of the definition of a human being. In this sense, this man's »likeness of God« speaks of man as of a being in relation with God, which is not just the general description of man's position but represents a concept whose meaning is directed towards a concept of a new being in Jesus Christ. (Brancaccio 2016, 80)

Regarding the wide frame of the teachings of Pope Benedict XVI, we want to point out here just an element of his understanding of reason as a reality which has diverse dimensions and in that sense the nature of the relation between science and faith. This element additionally highlights creation as a concept of relation in the theological sense. Pope Benedict emphasizes that faith gives a proper contribution regarding the understanding of the dimension of reason and that

proper contribution gives science as well. In that sense, we have to look beyond creationism as well as beyond the understanding of the evolution that wants to exclude theological philosophical questions. (2008, 166) It is of special value in Benedict's confirmation of creation as a term that regards the field of ontology, while evolution regards the phenomenological field, and also the claim for the respect of the limits of science and recognition of the philosophical and theological issues that overcome scientific knowledge (Brancaccio 2016, 58–59).

Pope Francis' special contribution to this topic is recognized in his encyclical letter *Laudato si'*. Regarding the relation between science and faith, this pontiff remains in the line of his predecessors. Although we can say that in this letter Pope Francis does not elaborate in detail the theme of the relation between the theological content of creation and the scientific content of evolution, there still are some indications which are very important for the understanding of this relation. First of all, the Pope recognizes the specific topic of human life in the first Biblical report about creation in respect to all other creation, emphasizing the symbolical and narrative character of terminology used in that report (LS, § 66). He claims that the very first thing important for human life is the reality of relation, and the relation with God is in the first place (§ 66). That means that the reality of this relation is of primary importance for the understanding of the specific character of the human being in the realm of creation (§81). This truth is confirmed again when the pontiff speaks of creation as a term that belongs to the order of love, meaning the love of God towards creation (§ 77). This understanding of creation only guides us to a real context of the meaning of creation of the world that is meant to be developed by the inner laws and, at the same time, by the presence of God in the deepest depth of every being (§ 80). The concept of the relation of everything is so important to Pope Francis that he expands that kind of expression even to the specific knowledge that belongs to the area of evolution when speaking of the connection of our own gene code and that of other beings (§ 138).

After these claims, we can recognize the importance of the proper understanding of the concept of creation in relational terms. It is a concept which does not speak of the physical condition or definition of space, nor of the beginning of the world in the sense of time. It is actually a concept that confirms the ontological dependence of everything on God and the relation of man with God that defines man. In this sense, the concept of »project of God the Creator« is very helpful as we can see in the following considerations. Still, it is very important to recognize the relational understanding of creation especially useful for catechesis. The understanding of creation in terms of relation matches one of the main catechetical needs and that is the relational understanding of God and man, as pointed out by some prominent catechetical and pedagogic experts. (Filipović 2017, 80–81) In that sense, we can notice this concept has a crucial meaning for appropriate education in the faith.

3. The Project of God the Creator

As a way of achieving a deeper understanding of creation and of overcoming the fallacies of creationism and the intelligent design theory, today we could adopt in a very specific manner the concept of the project of God the Creator. This concept is used by some theologians and scientists for a deeper understanding, on the one hand, of the teachings of popes and, on the other, of the relation between science and faith regarding these matters. (Brancaccio 2016, 23; 60–65; 98; Faccchini 2007, 233) The understanding of creation within the project of God can be very helpful to a concrete understanding and a correct deliberation about creation in pastoral and catechetical endeavours. In fact, as humans – beings of symbols – we need good terms and concepts to express our understanding. This is true especially in the domain of faith and theology.

According to this understanding, creation is not about the simple beginning of the universe or of individual beings. It is also not about some kind of entanglement of supernatural into natural dynamics. Creation is about the relation by which God gives the being to reality within a constant project that means the dependence of the creature upon the Creator. This is the relation and the project of God's love. (Brancaccio 2016, 65) In this sense, evolution presupposes creation. The project of God here means that creation is prior to evolution in the sense of being (69), and that is the theological and philosophical argument that leads us beyond the border of natural causes.

As we can see, the relation that God establishes with men as a reality that defines man as such is a part of a greater and eternal project of God's love which is fulfilled in Jesus Christ (75). Jesus's mission is fulfilled in re-establishing the relation of men with the Father. In this sense, we can understand that concepts »project of God's love« and of »relation« are of primary importance for the understanding the whole theology of creation and of salvation.

4. Important scientific elements regarding the origin of life on Earth

As much as it is important the appropriate theological understanding of the concept of creation, the project of God the Creator and other main theological concepts, it is also important the understanding of the main scientific facts regarding the origin of the world and of life on this planet. This means that we are supposed to overcome a dangerous void that at the moment rules in some fields of pastoral and the catechetical activity regarding knowledge of these scientific facts. We do not want to express some general impression here, which means the impression that could be understood as a negative judgment over the work of the majority of catechetical subjects. We want to point out some significant tendencies regarding these issues in the catechetical activity of today and, at the same time, emphasize the importance of the appropriate connection between the represen-

tation of theological concepts and of scientific facts during the catechetical activity, which is an important part of the duties of catechetical subjects.

At the same time, we are supposed to warn of the risks and consequences of metaphysical naturalism (Vranješ and Miletić 2013, 485) in the field of philosophy of science and nature, which has a deep impact on the field of education today. This means that we have a need for a very special philosophical and theological view of these issues and of their understanding and transmission.

Regarding these issues, there are many different scientific questions which are very important for the understanding of the whole framework of the scientific explanation of the origin of life on Earth and of its nature. We cannot elaborate all those questions here. But still, we want to point out the main elements which are indispensable for the logical and justified speech of the beginnings of life in any setting in a society which is supposed to be understandable and reasonable. The faith setting is certainly one of them.

4.1 The main considerations

As an attempt of global consideration of this theme today we could begin with the claim that there are two most popular theories of the beginning of life on this planet: abiogenesis and panspermia. The first one searches for the beginnings in the existing materials on the planet and the other theory tries to find the beginnings not on Earth, but in some other place in the solar system or beyond it.

As an attempt at even deeper insight into this matter, we have to mention a very interesting theme of »a cosmic imperative« theory. It is actually one way of responding to the question: is this universe teeming with life or not? The biologist Christian de Duve thinks that life will arise on Earth-like planets for sure. And many other scientists are on the same path. (Davies 2012, 25–26) An answer of a different kind would bear the claim that life is only a freak accident. A claim of this kind made by Jacques Monod is refused today by many prominent scholars who are mainly trying to point out the abiogenesis theory as dominant in searching for the origin of life on Earth.⁵

The »different geneses theory« is a pretty new way of understanding the beginnings of life on Earth. (42–47) It is a claim regarding events that could have taken place during the early history of this planet, some 700 million years after the beginning of the formation of the planet. The Earth was the subject of heavy bombardment from comets and asteroids. But, between some single periods of those bombardments, there were periods of peace that could have lasted even for millions of years. It is in those periods that life could have arisen and that this same life could have been destroyed. And there is more; this same life could have had the same destiny time and time again in the same sequences. Even more; some forms of microbial life could have gone to Mars on rocks and, in the same way, could have come to Earth again. Now we can add the question has life start-

⁵ It is, for example, the claim of Smith and Morowitz which is elaborated in their book (2016).

ed on Earth just once or many times? (43) Of course, these questions are still a long way away from a clear answer.

It is important to notice here that Mars becomes ever more a serious candidate in the search for the origins of life in the solar system. This is especially true if we consider the assurance of many scientists that Mars once was an »Earth like« planet and regarding that, we can predict that it would be possible in the future to find some trace of life, even just microbial, on that planet. (40)

The main issues regarding the beginning of life on Earth touch the questions of the when, where and how of biogenesis? (26) These questions are related to the theme of the genesis and the organization of the biosphere as the fourth geosphere which in its processes and interconnections of the living system is indispensable for life (Smith and Morowitz 2016, 10–11). The other important question is the origin of the ecosystem, and this form of order is so important that it actually represents a level of aggregation that is recognized as the bridge from geochemistry to life (43). In this frame of thought it is indispensable to comprehend the newest proposals regarding the meaning of the subsurface of Earth and of chemotrophic chemistry for the emergence of life, which means the

»proposal that the subsurface is the longest inhabited zone of life on Earth, that the chemotrophic biosphere today is the nearest model for the earliest stages of cellular life, and that the continuity of geochemistry with chemotrophic biochemistry holds the clues to life's emergence« (141).

It is important to add that in this sense the hydrothermal systems in the oceans are, in terms of long term structures, very relevant for the consideration of life's origin (142).

The origin of the biosphere is to be found in the process of transformations that go through the ordered synthetic network which presupposes the path from geochemical elements to the appearance of cofactors, molecular replication, and cellularization. This means actually that by this process over time the biosphere becomes much more distinct and autonomous in respect to the geochemical background, that metabolism emerges within the frame of dynamics that include the appearance of replicating oligomer systems, cellular integration and finally evolution as a mechanism to produce order. (340–341)

An indispensably important insight is actually this which points out the fact that life presupposes a different kind of order, which means »a kind of unity-in-confederacy of many kinds of order« (39). Life is, in other words, something complex and ordered and demands a very specific understanding and on different levels. In this sense, we are supposed to understand that human life is connected to other life on this planet but at the same time, this life demands a very specific insight into understanding.

4.1.1 A human being

A very specific question here is certainly the question of the beginning of the human race. We cannot enter here the whole scientific framework of that question

but just want to emphasize the main issues which are indispensable even for theological and philosophical considerations if they are to be reliable. First of all, we must consider the fact that if we take the tree of life into consideration, we can see that it shows the genetic relatedness of different species among which is our species, *homo sapiens*.⁶ This means that we are related to all other known life. Our descent, like that of the chimpanzees, goes to a common ancestor in Africa back in time between 7 to 5 million years ago. Going further in time, all life converges to the time of three or four billion years ago. It is indispensable of course to take into consideration the diversification on the time scale regarding the different geological eons, eras, and epochs of Earth and at the same time some significant periods and events regarding the change in life history, among which the Cambrian explosion before some 530 million years ago represents one of the most important events.

The history of the human race is understandable if we consider the fact that the evolution of our body means some significant changes over time that leads to some different features of the body we have today (Facchini 2007, 12). Among those features, the form of bones, the brain capacity, and the teeth are the most important because they determine and show other important human characteristics and behaviour over time. After the common ancestor in the primate order to the more hominid forms, the intermediate phases that lead from prehuman forms to humans include: *australopithecus*, *zizanthropus*, *sinanthropus*, *ardipithecus* and *pithecanthropus*. There are some variations in these, but the main fact leads us first of all to the *australopithecus* because its form is very important and shows that he lived 3 to 1 million years ago; *zizanthropus* in fact lived about 1,8 million years ago. The very famous *australopithecus* form is *Lucy*, a female who lived 3 million years ago. *Australopithecus* was a form very dispersed in eastern and south Africa. (19) The Olduvai pass in Tanzania is very significant place in this sense because of the many findings of his fossils. All these findings confirm that the cradle of humanity is still to be found in Africa, regardless of some significant findings in other areas in the world because fossils from Africa represent a real *phylum* on the tree of the primate. (21) From *australopithecus* the process goes to the order *homo*.

The hominine named *homo habilis* is still considered to be the first key part in the evolution of the order *homo* and in the whole process of hominization.⁷ After him, the order goes through *homo rudolfensis*, *homo erectus*, *homo sapiens archaicus*, *homo neanderthalensis*, which represent a very specific kind of our evolution because in them human evolution finds some specific European expression (14), to the *homo sapiens sapiens* (26). It is also important to notice that the line from *homo erectus* goes differently to *homo sapiens sapiens*, which means that the line goes fileticly from *homo erectus* to *antecessor*, and then in Europe to the

⁶ We can, of course, take Paul Davies' (2012, 45) question even of the »forest of life« in consideration, but that would lead us to many other questions which are not indispensable for this debate.

⁷ Although, there are some opinions according to which it would be better designate *homo habilis* as *australopithecus* then a *homo* order member (94).

pre-neanderthal line by *homo heidelbergensis*. In Africa, the line goes from erectus by *homo rodesiensis* to *sapiens*. Humanity in Europe even before some 500.000 years ago is directed towards the neanderthal type of man. (136) But, neanderthals actually had brought not too much to the human modern line and we are supposed to find the roots of that line in Africa, in homoerectus and then in the homo antecessor line (156–157). The Turkana lake area in Kenya and Omo river area in Ethiopia are very specific locations in this sense because of the findings related to the *sapiens archaicus*. In the period between 35.000 to 10.000 years ago, the definite features of the *homo sapiens sapiens* are clearly and definitely recognizable.

The latest discoveries by Lee Berger and his team in South Africa in the Rising Star cave near Johannesburg in 2015 shows a new form of hominine named *homo naledi*. He would be a new part, a new species in the homo order. What is puzzling here in a specific sense is the age when that creature lived, which is estimated to the period of 335.000 to 236.000 years ago. That discovery (and some others) don't speak in favor of the linear evolution of *hominines* towards man but it rather speaks in favor of the several lines which coexisted like *naledi* that lived at the same time as other homo order members.

The very important fact to be recognized and accepted in this process of hominization is the fact of the cultural evolution of man. The majority of fossil findings, the tools and the artefacts, as well as the elements of the habitat, shows the advancing cultural capability of man. The elements of the culture are the main distinguishing factor by which man differs from the animals and the rest of the world. In the frame of the cultural evolution, it is very important to recognize the elements of art and religion. They represent a special factor of human life from the very beginning. The Neolithic period in this sense represents a specific time because all these elements had been set up on a higher level in the frame of the whole organization of the society. (216) Culture, symbolization, the power of abstract thought, language, communion, cooperation and the relation of man to the territory and to basic needs represent the main elements of the very human life in which man advances. In the end, we can say that biological evolution cannot deplete nor explain the whole frame of the significance of the term »man« and of his reality. This means that real science must leave space for other elements of human life to be studied in their proper sense.

5. The meaning of preceding insights in the pastoral and catechetical context

It is important to try to connect the preceding insights of theological and scientific claims in order to propose elements for a better and clearer integration of these insights in the catechetical process. First of all, it is that very connecting that many times fails. Many catechetical subjects usually remain just in the domain of some sort of theological explanation regarding Biblical texts about creation, but many times without the attempt of appropriate connecting of their theological

insights with the scientific facts regarding the origin of life. In that sense, many speeches, lectures, and exercises in the catechetical domain remain without a clearer picture regarding these themes.

An important problem here regards not the theological truth but the pastoral praxis. It is the problem of some sort of the old mentality regarding the comprehension of creation, which means the mentality that is still trying to find some simple and at the same time infantilistic way of understanding the Bible, neglecting the »hard« themes and favouring the so-called »pious argument«.⁸ This leads directly to the comprehension of God as of a sort of »demiurge« and creation as some distant »fairy tale event«. (Vranješ and Miletić 2013, 490) Another problem represents the attempt that is sometimes present regarding some didactical facts and also some catechetical approaches and is manifested as a sort of constriction of the theme of creation to the theme of the created world and specifically to the theme of care for the created world.⁹ An argument of this kind of care is important in itself but cannot be used as an excuse for an inappropriate understanding of creation.

Fortunately, the catechetical history in recent times also knows of better and much appropriate approaches. This history recognizes some dominant approaches to the transmission of knowledge regarding creation which goes from catechetical and curricular to the correlational-symbolical concept. (Garmaz and Scharer 2010, 172–182) We point out here the elements important for the catechetical process which are recognized as indispensable today regarding the contemporary insights of some prominent scholars in the area. These elements are also important because lately a much greater level of encouragement of the integration of science and faith regarding the theme of creation has been detected in the textbooks of religious education in the schools, which is especially true of high school textbooks.¹⁰

It is very important to notice that there are as many elements of catechetical processes and of vast pastoral dynamics as there are different subjects included in these realities. We have today a very complex situation in this sense. There are important differences regarding the teaching of children in school and regarding catechesis of youth and adults. These groups have a very different way of understanding as well as different experiences that impact their way of thinking. Children in the schools, depending on their age, pass through dynamics of archaic, hybrid to complementary elements of understanding reality, especially such complex reality as the creation of the world. (166–168) The didactical instruments used in the catechesis regarding the theme of evolution and of the beginning of life on Earth has to offer the different elements proper to the age and to the capacity of understanding (184).

The catechesis of the youth today regarding these realities is marked especially by the tendency of young people to challenge the dominant and the traditional way of thinking and the traditional values and beliefs. The categorical and some-

⁸ There are clear warnings on this »argument« and this mentality in the literature (Vranješ and Miletić 2013, 490).

⁹ On this problem warn some catechetical experts (Garmaz and Scharer 2010, 184).

¹⁰ Which is the case of textbooks of that sort in Croatia (184–189).

times radical way of the realization of this tendency is usually based on a clear encounter with the scientific picture of the world and the scientific way of thinking and experiencing reality. The catechesis is often marked by the problem of incompetence in responding to this tendency regarding the clarity and logical construction of answers and in regard to the capability of subjects included in performing of the catechetical process. It is incompetence of this kind that is usually very dangerous for the faith process of youth.

Adults, depending on their age, are in a very specific situation today regarding these issues. We could say that the very issue of the understanding of creation is, in a certain sense, a sign of the clarity of the faith or the sign of some level of infantile understanding of God. That is why the catechesis of these themes should be included in an appropriate manner in the vast domain of the catechesis of adults. That manner includes especially a constant attempt at updating the catechetical process. This task is specifically important for adult believers who participate in some sort of scientific and cultural life of the society which is directly connected with the investigation of these issues. But, on the other hand, this task demands capable and well educated catechetical and pastoral subjects.

In the end, it is important to point out the meaning of the relational understanding of the concept of creation in the catechetical process regarding the mentioned theme of care for the created world which is closely related to these themes. During the educational classes and catechetical encounters, students should be called on to experience and accept themselves as a created being in relation with the whole of creation on the basis of the experience of the beauty and the wonder of the created world. (189) That relational dimension is supposed to enable them to find their appropriate way of encountering the mystery of creation and at the same time of accepting the scientific facts regarding the origin and nature of life on Earth.

6. Conclusion

This paper is devoted to the theological-pastoral elaboration of the issue of the theological understanding of the concept of creation in concrete pastoral and catechetical activity today. This theme is connected to the scientific understanding of the facts related to the issues of the origin of life on Earth. Pointed out are the contemporary theological insights related to an appropriate understanding of the concept of creation and especially those of the concept of the project of God the Creator. This endeavour is undertaken especially on the basis of the theological deliberations and conclusions of the latest popes and of some prominent theologians. The second important part of the elaboration undertaken here is that which regards the main contemporary scientific insights as facts and theories related to the theme of the origin of life on Earth.

The specific meaning for the pastoral and catechesis today in this sense has the relational understanding of creation. This term is to be understood properly in its

relational theological sense. This fact is very important, especially for pastoral and catechetical activity because it enables the subjects of the catechesis to understand creation in its proper sense and scientific terms in their proper scientific sense. The catechetical subjects are invited to adopt the appropriate theological notions of these issues and those of the main scientific facts and then to elaborate them in the right way during the catechetical process. It is indispensable for them to respect the possibilities and the capabilities depending on the age of the students and adults regarding the theological notion and that of the scientific facts. In a certain sense, everything regarding these issues in the catechetical process should go towards the theme of care for the created world and of giving thanks to God the Creator for the beauty of this world that is revealed not only through theological themes but also through methodologically established scientific facts.

Abbreviations

GS – Second Vatican Council. 1965. *Gaudium et spes*.

LS – Francis. 2015. *Laudato si'*.

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