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## THE FACT OF CREATION AND THE LIMITS OF SCIENTIFIC KNOWLEDGE

Ion Marian Croitoru (a)\*

(a) Associate Professor, Faculty of Orthodox Theology and Education Sciences, Valahia University of  
Târgoviște, ROMANIA, E-mail: [ioncroitoru@yahoo.fr](mailto:ioncroitoru@yahoo.fr); [im.croitoru@yahoo.gr](mailto:im.croitoru@yahoo.gr)

### Abstract

Although scientific research is in full bloom regarding, for instance, the environment, the fact of creation cannot be ignored either, even if some scientists deny it, while others ascertain it, albeit from perspectives, however, foreign to the patristic vision specific of the Orthodoxy. Consequently, the limits of cosmology are structured as well by Christian theology, which shows that the study of the world, guided by laws of physics in a limited framework, is carried out inside the creation affected by the consequences of the primordial sin, so that the reality of the world before sin is known only to those who reach spiritual perfection and holiness, therefore, from an eschatological perspective, since they, too, go through the moment of separation of the soul from the body, waiting for the general resurrection. Therefore, a new way of being is affirmed in the Orthodox Church, by the personal experience of each believer, which is a transformation on the personal and cosmic level, according to Jesus Christ's resurrected body, which means the reality of a new physics, which concerns both the beginning of the universe, but also its new dimension, at the Lord's Second Coming, when heaven and earth will be renewed by transfiguration. Regarding the existence of the universe, the differences are given by the perceptions of two cosmologies. Thus, the theonomous cosmology highlights man's purpose on earth, the necessity of moral and spiritual life, and the transfiguration of creation, explaining God's presence in His creation, but also His work in it, namely the transcendence and the immanence in relation to the creation. The autonomous cosmology engenders the evolutionist theory, which leads to secularism and, consequently, to the gap between the contemporary man's technological progress, and his spiritual and moral regress. Today, more scientists are turning their attention also to the data of *the divine Revelation*, the way it makes itself known by its organs, *the Holy Scripture* and *the Holy Tradition*, in the *one Church*, which will mean a deepening of the dialogue between science and theology in favour of the man from everywhere and from the times to come.

**Keywords:** God; the creation ex nihilo; creationism; theism; evolutionism; Darwinism; pantheism; rational knowledge; divine knowledge; Orthodoxy; divine Revelation; Holy Scripture; Holy Tradition; Church;



## 1. INTRODUCTION

The God glorified in the Holy Trinity has made Himself known to man by His *Revelation*, whose organs are *the Holy Scripture* and *the Holy Tradition*. They have been entrusted to man by God Himself, so that man finds, by them, the origin and the meaning of his life. Man's origin is related to the origin of *the visible and the invisible* world, namely the world visible to the natural senses, but also the world perceivable by the spiritual senses, which means that man is not just a body, but also a soul, in other words, he has a biological part, but also a spiritual part, animating this biological part. Daily evidence proves this human makeup, body and soul, and man's pursuits, which are not just material, but also spiritual. Therefore, man is a unique being on earth, and this uniqueness is given by the fact of the creation, as related in *the Holy Scripture* and explained in *the Holy Tradition*. Thus, in the first two chapters from *Genesis*, representing the first book of *the Old Testament*, is narrated the fact of the creation *ex nihilo*, which took place during six days, entirely special from the perspective of the flowing of time and the emergence of *the visible and invisible world*.

From the two organs of *the divine Revelation*, man understands that the universe is not eternal, nor pre-existing, on the contrary, he finds out that the visible and invisible world have a beginning, namely it is the fruit of God's creation, Who is not only the Starter of the creation, with everything in it, but also its *inspirer and accomplisher* [Gregersen, 2007, 8], by the work of the uncreated divine energies. Through this work, God is immanent in relation to the world, namely He is present in the creation without being identified or confounded with it, as He remains, at the same time, transcendent to the world, as far as His being and His uncreated grace are concerned, according to the Orthodox Christian theology [Popescu (2), 2001, 111; Popescu, 2001, 58]<sup>1</sup>. This avoids *confounding divine transcendence with God's absence from the creation*, an aspect occurred in the Christian theology of the West, where deism<sup>2</sup> was born, as well, which will trigger the *dissolution of the religious universe, man's immanent self-sufficiency and the refusal of the divine transcendence* [Popescu (1), 2001, 98-99]<sup>3</sup>. Yet, all these led to the contemporary man's spiritual crisis and the influences of the modern ideas of autonomy of the world in science, ignoring the fact that God continually intervenes in His own creation, by the work of His uncreated energies, to *perfect and sanctify man and the world* [Popescu (2), 2001, 108-109, 111]. Thus, *the world is not a degenerated copy of God, but the result of the Creator's creative and voluntary act, sprung from love* [Popescu, 2001, 63].

Actually, man was created by God in a very special way (*Gen.* 1: 26-27; 2: 7, 18, 21-25), man and woman, reflecting in his being not just the relation with the universe, but also God's image [Popescu (2), 2001, 119]. This fact differentiates man from all the other living beings, especially as he manifests himself as a *conscious, free and responsible being, called to dialogue with God* [Popescu (2), 2001, 119]<sup>4</sup>. According to the biblical reference, on the existential plane, man carries God's *breath of life* (*Gen.* 2: 7), and the differentiation was given not just by gender, man and woman (*Gen.* 1: 27; 2: 21-23), but also by the name, Adam and Eve (*Gen.* 2: 16; 3: 20), leading a life without voluptuousness, as they *were naked and were not ashamed* (*Gen.* 2: 25), and in direct communion with God (*Gen.* 3: 8-13). After Adam and Eve the forefathers' fall in the ancestral sin, man's harmony with God and His creation is altered, as suffering and death intervene (*Gen.* 3: 16-24), so that man and the creation will be in another state, which

<sup>1</sup> It is from this same perspective that one can understand also the text of *Acts* 17: 24-28, from where one can conclude God's transcendence and immanence in relation to the world. Though God is present in the world, He is not confounded with the world [Vlăducă, 1998, 131; see also Tănase, 2015, 69-106].

<sup>2</sup> But also pantheism, which impersonally confounds the world with God [Popescu, 2001, 63].

<sup>3</sup> In another interpretation key, according to Werner Karl Heisenberg, the medieval conception of the Western Christian theology about the world will provoke science to consider nature not just independent from God, but also from man [Heisenberg, 1977, 108, 110, apud Costache, 2001, 135].

<sup>4</sup> In its attempt to explain the universe, the contemporary science *got to the stage where it can no longer ignore the existence of conscience*, so that *more and more scholars are convinced of the fact that one can no longer make true science without conscience* [Lemeni, 2001, 123, 131]. Actually, even the attempt to describe the conscience opened the passage, in the scientists' circles, from the naturalist anthropology to *the question about man's reason to be* [Costache, 2001, 140].

will be restored By the Son of God, the Lord and Saviour of the world Jesus Christ. This means that man and the creation in which God ordained him to be are not deprived of *the divine Revelation*, accomplished in His Son, true God, according to His divine nature, by the birth from before the centuries from God the Father, and true Man, according to the human nature, which He took by His wonderful birth from the Most Holy Virgin Mary<sup>5</sup>.

The entire creation presents an inner order, which manifests itself by the natural laws. These hold onto the created energies and lie at the basis of the visible and invisible things and beings, but are not autonomous and independent from God, Who is continually at work in the creation, in a synergic manner, *respecting the natural laws and the specific way of being of the things and of the beings, and especially of man*, called, even since the moment of his creation, ‘to evolve’ from the state of image of God to the state of likeness of God, and in this process, by Jesus Christ and His Church, also takes place the ascent of the creation to God<sup>6</sup>. At the same time, the inner order of the world, as the Holy Church Fathers describe it, has a spiritual, but also a physical aspect, equally permitting the spiritual progress of man, who uses matter in the dialogue with God, but also his scientific and cultural progress [Popescu (2), 2001, 120-122], so that the symbiosis between these progresses ought to be possible, since the spiritual side of the world represents as well the foundation of the dialogue between theology and science [Popescu, 2001, 73]. This reality relies on the fact that the reason of nature or of the creation is given by its Creator Himself, which also explains the spiritual foundation of the creation, since, according to Saint Maximus the Confessor, the reason of nature is both *natural* and *divine* law [Saint Maximus the Confessor, 90, 901 D]. The divine or supranatural aspect of the law is given in the uncreated energies, as expression of the divine reasons according to which all things were created and whose gravity centre is the Person of the Creative Logos. *The natural aspect manifests itself in the created energies and in the inner rationality of matter*, which gives matter a flexible form, which can be modelled<sup>7</sup>, from the inside, by the divine Logos<sup>8</sup>, namely by the Son of God, through the power of the Holy Spirit and the will of God the Father, to *create, progressively, the things and beings existing in the universe* [Popescu, 2001, 63]. The divine or supranatural aspect constitutes the object of faith, while the natural aspect represents the research object of science. These two aspects are in a *mutual relation, without confusion and without separation between them* [Popescu, 2001, 73], and man ought to approach both<sup>9</sup>.

## 2. SCIENTIFIC KNOWLEDGE AND ITS LIMITS

The limits of scientific knowledge<sup>10</sup> are recognized by scientists, who admit that *the boundary between known and unknown, which science is pushing back, is like the shore of a small island in a sea of*

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<sup>5</sup> This wonderful birth is the fruit of the synergy between the Holy Trinity and the Most Holy Virgin Mary, because the Son of God moulded a body for Himself in His Mother’s most pure womb, by the work of the Holy Spirit, Who descended upon her, and the power of God the Father, Who overshadowed her (Luke 1: 35).

<sup>6</sup> Based on what *the Holy Scripture* and *the Holy Tradition* reveal, Father Dumitru Popescu affirms that *God created man according to His image, as a conscious free and responsible person, to be a partner of dialogue and a co-worker of God, in order to raise with the creation to the Creator’s immortality*. Man’s dignity is so great that, according to the Holy Fathers, he is called *microcosm, macrocosm* and *microtheos*, namely *little world, big world* and *little god*, because only he is called, from the entire creation, to become, by realizing the state of God’s likeness, god by grace [Popescu, 2001, 66-67].

<sup>7</sup> In this sense, Father Dumitru Stăniloae affirms that the entire creation is plasticized rationality [Stăniloae, 1996, 351].

<sup>8</sup> Revealed and perceived as Reason and Word.

<sup>9</sup> Saint Basil the Great is considered *the first theologian who used the data of the science of his time to explain the biblical reference to the creation of the world in six days* [Popescu, 2001, 73; see also Sfântul Vasile cel Mare, 1986, 69-180; Sfântul Vasile cel Mare, 2008; Calciu-Dumitreasa, 1975, 633-641; Voicu, 1980, 70-93].

<sup>10</sup> Parts I-III in this study are inspired by my research entitled “Teologia și știința în dialog. Repere și perspective (Theology and Science in dialogue. Signposts and perspectives)”, see Croitoru, 2015, 209-236; for the English language, see Croitoru, 2020, 39-61].

*unknown*. Even if science gets an unlimited future of success after success, none of these will bring the unknowable closer, so that *the shore can be remodelled, but finally the sea will never be drained up* [Pollack, 2007, 26-27]. *It is an obvious fact that the rationality of the universe cannot be explained rationally based on an irrationality* [Ratzinger, 2008, 81].

Actually, faith in God explains the world's rationality, a fact appropriated by scientists who are believers. For those who do not believe, clarifying is the dialogue between a specialist in molecular biology, Robert Pollack, a practicing Jew, and his teacher, rabbi Adin Steinsaltz, on the way his non-believer friends' critique to the book the first had written should be answered: *If you know anyone who says that God's Throne is empty and lives in peace with this, then get attached to that person as to a good and trust-worthy friend. But take care: almost all those who say that have already put something or someone on that Throne – usually, themselves* [Pollack, 2007, 15-16].

In the same sense, one can add the answer of metropolitan Nicholas of Mesoghéia and Lavreotiki (Greece), formerly world-famous researcher, given to a group of young people regarding the relation between faith in God and science: *... running after scientific knowledge and truth is actually fascinating. I wish you to taste it. Research is like a dizzying drunkenness. Our world is created with incredible beauty and wisdom. It is worth discovering these two as much as possible. But he should do it with a man's humility, not with the impertinence of a false god. He need to put himself in harmony with his limits* [Νικολάου, 2013, 59].

*Human knowledge, perception and wisdom are neither limitless, nor complete. And even our nature shows us our limits. The Universe presents at its beginning a singularity (mathematical anomaly)<sup>11</sup>. It hides its mystery. According to the uncertainty principle<sup>12</sup>, the more nature reveals a mystery, the more it hides another* [Νικολάου, 2013, 59-60].

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<sup>11</sup> *Singularity* in a mathematical sense represents a rupture point for a function, namely a discontinuity to the rest of the function. The term got to be consecrated as well in astrophysics, being used to describe the beginning of the universe under the name of Big Bang, namely the moment when equations lose their sense, and physics' laws are annulled. Today's scientific cosmology proposes as a cosmological scenario the standard model of the Big Bang, and by complex mathematical demonstrations, like those of Roger Penrose and Stephen Hawking, is highlighted the *initial singularity*, whose existence, however, remains without final answer. Thus, the arising problem is the overcoming of the standard model, as cosmology raises fundamental questions on the universe's origin, existence and final aim. By the Big Bang theory, scientists become increasingly more aware that the answers of science cannot be definitive [Lonchamp, 2003, 112-113]. The limits of cosmology are structured as well by Christian theology, which shows that the study of the world, guided by laws of physics in a limited framework, is carried out inside the creation affected by the consequences of primordial sin, so that the reality of the world before sin is known only to those who reach spiritual perfection and holiness, therefore, from an eschatological perspective, since they, too, go through the moment of separation of the soul from the body. Consequently, a new way of being is affirmed, which is a transformation on the personal and cosmic level, according to Jesus Christ's resurrected body, which means the reality of a new physics, regarding the beginnings of the universe as well.

<sup>12</sup> This principle stated by Werner Karl Heisenberg, in 1927, designates a physical measurement accuracy margin. In other words, by this principle, also called of *indetermination* even by Heisenberg, correcting the name of the concept in the second edition of his study, but too late to prevent the spreading of the term *uncertainty* associated to his principle, states the impossibility of determining simultaneously the position and speed of a moving particle in quantum mechanics, as contrasted with Newtonian classical mechanics' vision, where this fact is perfectly possible regarding the objects of the physical world on the macroscopic level. Impossibility is understood as structural limit and not due to temporary ignorance, eventually correctable in the future. It should be mentioned that the two terms, *indetermination* and *uncertainty*, entered the collective scientific conscience, referring to the same Heisenberg's *indetermination* or *uncertainty* principle. By his principle, Heisenberg overturned Pierre-Simon Laplace's determinism *in one blow* and got Einstein to review his thinking [Collins, 2007 (EN), 79-80; Collins, 2009 (RO), 87-88]. It should be noted that it is Laplace who, to Napoléon Bonaparte's question about God, gave the reply that remained famous: *I have no need of this hypothesis* [Collins, 2007 (EN), 79;

*We are blessed to know what is much and great but condemned not to conquer the infinite and the complete. Yet, this infinite and complete, namely, what is beyond our senses and knowledge, are what lead us to God. Whoever gets dizzyed by his knowledge loses God. At that moment, his life looks like a chain, whose every link is also a success. However, the final overall result is a disappointment and a failure. Knowledge is very beautiful, yet insufficient to free you. It has limits, it is overwhelmed. Thus, faith is needed as well. It leads to the infinite and to the complete* [Νικολάου, 2013, 60].

Therefore, one of the great questions interrogating scientists is God's existence. In 1916, a survey was carried out among biologists, physicists and mathematicians, who were asked if they believe in a God actively communicating with people and to Whom they can pray, hoping for an answer. About 40% of them answered affirmatively. The same survey was repeated, *word by word*, in 1997, and, to the researchers' surprise, the percentage remained almost unchanged, concerning faith in a God of personal dialogue [Collins, 2007 (EN), 4; Collins, 2009 (RO), 10]<sup>13</sup>.

Even in the modern and postmodern epoch of cosmology, evolution and human genome, scientists, as Francis Collins, say a *resounding yes* to a *richly satisfying harmony between the scientific and spiritual worldviews*, in other words, expressing the conviction that *there is no conflict in being a rigorous scientist and a person who believes in a God who takes a personal interest in each one of us. Science's domain is to explore nature. God's domain is in the spiritual world, a realm not possible to explore with the tools and language of science*. This domain of God ought to be investigated *with the heart, the mind and the soul, and the mind must find a way to embrace both realms* [Collins, 2007 (EN), 6, 199; Collins, 2009 (RO), 12, 208]. Leader of the International Human Genome Project, who endeavoured for more than a decennium to uncover the DNA chain and draft the human genome map<sup>14</sup>, Francis Collins went through the stages of agnostic and atheist, to reach, by researching the Moral Law in man and several spiritual traditions, the conviction of the existence of the God of Abraham, namely he did not stop at the deistic God of Einstein [Collins, 2007 (EN), 29, 80; Collins, 2009 (RO), 36, 91]<sup>15</sup>, but went on to the God of personal relationship with man, becoming *disciple of Christ*<sup>16</sup> and following C. S. Lewis' example, he, too, an atheist, formerly [Collins, 2007 (EN), 16, 20-21, 27; Collins, 2009 (RO), 22, 28, 36-37]<sup>17</sup>. *Faith in God*, in front of the arguments of Moral Law and of several other aspects, appears *more*

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Collins, 2009 (RO), 87], and that Einstein initially dismissed the concept of *uncertainty*, by his famous statement: *God does not play dice* [Collins, 2007 (EN), 80, 82; Collins, 2009 (RO), 88, 91]; about the fact that Einstein was not so comfortable with quantum mechanics, see Hawking, 2005<sup>2</sup>, 76-90.

<sup>13</sup> The geneticist Francis S. Collins notes that *all too often today, scientists are uneasy about admitting their spiritual views* [Collins, 2007 (EN), 230; Collins, 2009 (RO), 240]. Actually, to the scientists worried that faith in God might suppose *a descent into irrationality, a compromise of logic, or even intellectual suicide*, Collins tells that *of all the possible worldviews, atheism is the least rational* [Collins, 2007 (EN), 231; Collins, 2009 (RO), 241].

<sup>14</sup> The human genome consists in man's complex DNA, representing the hereditary code of life. The deciphered DNA appears under the form of a text made up of three billion letters, written in a strange and cryptographic code, made up of four letters. The complexity of the information contained in each cell of the human body is amazing, that *a live reading of that code at a rate of one letter per second would take thirty-one years, even if reading continued day and night. Printing these letters out in regular font size on normal bond paper and binding them all together would result in a tower the height of the Washington Monument built in George Washington's memory, which is 169 m high* [Collins, *The Language of God*, pp. 1-2 (Collins, *Limbajul lui Dumnezeu*, p. 7)].

<sup>15</sup> Although rejecting *the doctrine of a personal God*, Einstein was constrained to admit the fact that this doctrine *could never be denied, in the literal sense of the word, by science, as this doctrine can take shelter again and again in those domains not yet conquered by scientific knowledge* [Einstein, 2005<sup>3</sup>, 288-289].

<sup>16</sup> As a member of the Evangelical Christian Church [Collins, 2007 (EN), 146, 178; Collins, 2009 (RO), 156, 188]. About Collins' process of conversion to faith in Christ see his narrative in Collins, 2007 (EN), 219-227; Collins, 2009 (RO), 229-237.

<sup>17</sup> Worth mentioning is that when he received the leadership of the Human Genome Project, in the place of Jim Watson, Collins was already *a man of faith in God*, and the fact that he was entrusted this Project,

*rational than disbelief* [Collins, 2007 (EN), 30; Collins, 2009 (RO), 37]<sup>18</sup>. Even if *molecular mechanisms, genetic methods and natural selection* are made available to explain life, however, *there is plenty of divine mystery left in the world, and many people who have considered all the scientific and spiritual evidence still see God's creative and guiding hand at work* [Collins, 2007 (EN), 106; Collins, 2009 (RO), 115]<sup>19</sup>.

Albert Einstein speaks about *cosmic religiosity*, based on the world's rationality and superior to the other religious living steps, going beyond the fundamental teaching of any Church, yet representing, at the same time, *the strongest and noblest impulse of scientific research* [Einstein, 2005<sup>3</sup>, 254-256, 268]<sup>20</sup>. For this reason, he asks himself with awe: *What profound belief in the rationality of the world's composition and what aspiration to understanding even an insignificant reflex of the rationality unveiled in this world must have been alive in Kepler and Newton, for them to be able to decipher the celestial mechanics mechanism in the solitary work of many years?* [Einstein, 2005<sup>3</sup>, 256]. Knowing the faith in God of the two scientists invoked, it is no wonder that Einstein acknowledges, based on one of his contemporaries' testimony, that *only deeply religious people are most serious researchers* [Einstein, 2005<sup>3</sup>, 256]. At the same time, Einstein also evokes *an intrinsic reality, existing independently from any observation or measurement* [Lonchamp, 2003, 123]. Bernard d'Espagnat (1921-2015) re-examined, in the light of quantum mechanics, the concept of reality, getting to a distinction between *empirical reality* and *independent reality*. *Empirical reality* is defined as the set of phenomena, which reality is breakable into subsystems and allowing scientific study. *Independent reality* is situated outside spatiality-temporality, being neither explorable, nor describable by scientific procedures. This does not mean that what cannot be known scientifically, cannot be known at all, because this reality leaves visible traces on our empirical world.

Thus, according to Jean-Pierre Lonchamp, in this point, d'Espagnat separates himself from Einstein [Lonchamp, 2003, 124], and philosophers reach the same conclusions before scientists. *In philosophical terms, the domain of independent reality is the 'domain of existence', defined by Baruch Spinoza (1632-1677) as what exists per se, namely all that is not a quality of something, nor someone's phantasy*. Spinoza does not hesitate to call God this existence per se, to mark the difference to the world of phenomena, and d'Espagnat borrows from him, sometimes, *the same expression* [Lonchamp, 2003,

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offered him the chance, as he himself confesses, to read *God's language*, namely to find *the intimate details of how humans had come to be*. *Could I walk away?*, asks Collins. *I have always been suspicious of those who claim to perceive God's will in moments such as this, but the awesome significance of this adventure, and the potential consequences for humankind's relationship with the Creator, could hardly be ignored*. Collins will accept the leadership of the respective Project after *a long afternoon praying in a little chapel, seeking guidance about this decision*. *I did not 'hear' God speak – in fact, I have never had that experience. But during those hours, ending in an evensong service that I had not expected, a peace settled over me. A few days later, I accepted the offer*. The accomplishment of all the objectives of the Human Genome Project will be announced in April 2003 [Collins, 2007 (EN), 118-119, 122; Collins, 2009 (RO), 127-128, 131].

<sup>18</sup> In another place, Collins affirms: *I had reached the conclusion that faith in God was much more compelling than the atheism I had previously embraced* [Collins, 2007 (EN), 198; Collins, 2009 (RO), 207-208], and *after twenty-eight years as a believer, the Moral Law still stands out for me as the strongest signpost to God* [Collins, 2007 (EN), 218; Collins, 2009 (RO), 228].

<sup>19</sup> *The comparison of chimp and human sequences* (the decoding of the human genome and that of the chimpanzee shows that people and chimpanzees are 96% identical, man having 23 pairs of chromosomes, and the chimpanzee 24), *interesting as it is, does not tell us what it means to be human*. In Collins' opinion, *DNA sequence alone, even if accompanied by a vast trove of data on biological function, will explain certain special human attributes, such as the knowledge of the Moral Law and the universal search of God* [Collins, 2007 (EN), 136-137, 139-140; Collins, 2009 (RO), 146-147, 149-150].

<sup>20</sup> In relation with cosmic religiosity, Einstein was asking himself: *How can cosmic religion be transmitted from man to man if it cannot lead to a defined concept of God (geformter Gottesbegriff) and theology?* In his answer, Einstein affirms that this can be done by art and science, which have the role of *awakening and keeping this feeling alive in those able to live it* [Einstein, 2005<sup>3</sup>, 255].

124]. Independent reality is considered not just matrix of the phenomena, but also matrix of values, like beauty, sacred etc. For instance, art uses sensible realities, matters, colours, but the artist's work refers to 'something' mysterious hiding behind perceivable signs, namely to *a reality behind things*. In this way, the reflections of a scientist, representative of contemporary science, meet the domain of theology, in the preoccupations of the Roman-Catholic priest Hans Urs von Balthasar (1905-1988), who looks at the divine Revelation not just under its aspect of truth and goodness, but also under its aspect of beauty as reflection of divine glory. To conclude, *the metaphysical problem of the Being or of God is worth being asked, starting from the empirical reality, so from science, by searching for the One in the multiple*. This metaphysical approach, glimpsed by the pre-Socratics, revealed in *The Old and The New Testament*, is rediscovered by eminent scientists and philosophers, in the light of contemporary science [Lonchamp, 2003, 125].

### 3. THE SCIENTIST AND THE FACT OF CREATION

The fact of creation remains in the scientists' attention, constrained by fifteen physical constants (including speed of light, power of the weak and strong nuclear forces, different parameters associated with electromagnetism, force of gravity), whose values cannot be pointed out, and *the chance that all of these constants would take on the values necessary to result in a stable universe capable of sustaining complex life forms is almost infinitesimal* [Collins, 2007 (EN), 74; Collins, 2009 (RO), 82]. The evaluation of these constants led to the anthropic principle formulation, stating that the universe is made to favour the emergence of men and their life on earth [see Barrow and Tipler, 1986; Maldamé, 1999, 91-128; Costache, 2001, 141-148], while the Big Bang theory constrains scientists to ask themselves what was before this event or who is responsible of its occurrence, proving the limits of science *as no other phenomenon has done*. In the endeavour to provide answers to the questions above, glimpsing the closeness between Big Bang and the creation out of nothing, both being, in fact, the result of a miracle, enough agnostics get to *sound downright theological* [Collins, 2007 (EN), 66; Collins, 2009 (RO), 74]<sup>21</sup>, already famous both in science and various spiritual traditions, being the astrophysicist Robert Jastrow's remark: *At this moment it seems as though science will never be able to raise the curtain on the mystery of creation. For the scientist who has lived by his faith in the power of reason, the story ends like a bad dream. He has scaled the mountains of ignorance; he is about to conquer the highest peak; as he pulls himself over the final rock, he is greeted by a band of theologians who have been sitting there for centuries* [Jastrow, 1992, 107]. In fact, *the existence of a universe, as we know it, geneticist Francis S. Collins affirms, rests upon a knife edge of improbability* [Collins, 2007 (EN), 73; Collins, 2009 (RO), 81] and *there is no question that the synchronization of all the constants and physical laws to make intelligent life possible is potentially a theological issue* [Collins, 2007 (EN), 75; Collins, 2009 (RO), 83]. In this sense, Stephen Hawking, cited by Ian Barbour, affirms: *the odds against a universe like ours emerging out of something like the Big Bang are enormous. I think there are clearly religious implications* [Barbour, 2000, apud Collins, 2007 (EN), 75; Collins, 2009 (RO), 83]. Thus, for the scientists inclined to consider a theistic perspective, *the Anthropic Principle certainly provides an interesting argument in favour of a Creator* [Collins, 2007 (EN), 78; Collins, 2009 (RO), 86; Costache, 2001, 143-144]<sup>22</sup>.

Returning to the dialogue of Metropolitan Nicholas, cited above, with the group of young men, one of the questions asked by them was: *But, today, scientists speak about the theory of everything in physics<sup>23</sup>, about multiple universes<sup>24</sup>, about feeling the beginning and the ends of the world, about*

<sup>21</sup> Actually, those agnostics who seriously tried to consider all the evidence *for and against* God's existence, and *a rather distinguished list it is, have unexpectedly converted themselves to belief in God* [Collins, 2007 (EN), 168; Collins, 2009 (RO), 179]; for the philosophers' case, see Vitz (ed.), 2015.

<sup>22</sup> Understanding and accepting biblical anthropology as *the key to cosmology* accredits the anthropic principle *from a deeper, more significant perspective than science itself can propose* [Costache, 2001, 155].

<sup>23</sup> Or *the theory unifying all the interactions*, also called *theory of everything*, remains a physicists' dream, impossible to probe experimentally due to reduced technological possibilities. This theory tries to explain the existence of the universe, small and large, noticing a dialectics of entirety to parts. *The whole is more than the sum of the parts. The cell is more than a cluster of particles. In the entirety appear new*

*elucidating the mystery of life, about an automatic birth, about mapping the genes' secrets, about elucidating the encephalic mechanisms and other related problems. Do not all these show that knowledge tends to the infinite? [Νικόλαου, 2013, 60]. The Greek hierarch's answer is as conclusive as possible: It tends, but asymptotically. The term is scientific. It means we will never attain [the infinite] and let me clarify things a little. The theory of everything is a theory that is rather a term than a reality. At the same time, a success is not the mapping of the genome, but deciphering it would have been a success. Similarly about life. Its secret is not to know its mechanisms, but how we could avoid disease, old age, death. Only then we would have succeeded in something. A little humility is needed. Science helps reach an approximate infinite, an approximate eternity and an approximate perfection. Yet, the distance from there to the infinite, to the eternity and to perfection is huge. It is bigger than the distance from them to what is little, recent, imperfect. Knowledge is a two-edged knife. It either creates the deceptive illusion of perfection and of the whole, therefore, it catches you in the trap of the world of limits, or lets you suppose a bit more, consequently, opens for you the way to the spaceship of faith [Νικόλαου, 2013, 61].*

#### 4. SEVERAL ASPECTS REQUIRING DEEP STUDIES

Based on the above and on the specialized bibliography one can note several aspects, equally representing subjects requiring deep studies.

1) Seeing in the Big-bang a confirmation, regarding the fact of creation, highlights a naive concordism, but it does not represent a mind-blowing theory, as the universe could have not existed, since it does not have in itself the reasons of its existence. Therefore, it becomes plausible to owe its existence to a being that escapes randomness and whom nothing prevents us from calling the creative God [Lonchamp, 2003, 127].

2) The universe appears as a very particular one, with fundamental constants of physics which, if they had had other values, they would have prevented the existence of any life form, all the more of man (the anthropic principle). Consequently, *all happens as if these very particular conditions have been chosen by an agent exterior to the universe, whom many consider to be an intelligent God, capable of making the necessary choices for man to see the light of day* [Lonchamp, 2003, 127], so that *not just man is adapted to the universe, but also the universe is adapted to man* [Barrow and Tipler, 1986, pp. vii, 20; Costache, 2001, 144]. Although the anthropic principle is not a scientific one, it raises metaphysical problems, which enthuse scientists [Lonchamp, 2003, 128; Collins, 2007 (EN), 71-78; Collins, 2009 (RO), 79-86]<sup>25</sup>. *The initial state of the universe must have been, indeed, very well chosen, if the hot Big Bang model was correct then, at the beginning of time, as Stephen Hawking affirms. It would be very hard to explain why the universe had to begin exactly this way, except if it was an act of God, Who intended to create beings like us* [Hawking, 2001<sup>3</sup>, 149].

3) One can note, as a sign of the times, the fact that more and more scientists, *finally ridding themselves of the taboo that tended to close them in their speciality, do not hesitate to propose publicly, in their daily practice, absolutely fundamental metaphysical problems* [Lonchamp, 2003, 129].

4) Logical empiricism or neo-positivism, which recorded an impetus in the 20<sup>th</sup> century and endeavouring to provide a scientific representation of the world, had to face Karl Popper's criticism, based

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*properties, that the constituents do not have* [Lonchamp, 2003, 119]. It should be mentioned that the four forces or fundamental interactions in nature are: gravitational force, responsible of the attraction between masses; electromagnetic force, assuring the atoms' cohesion, linking nuclei to the electrons 'gravitating' around them; the nuclear force or strong interaction force, exerted between nuclei constituents and assuring their cohesion; the weak interaction force, causing the spontaneous disintegration of certain particles and intervenes in natural radioactivity phenomena [Lonchamp, 2003, 112; see also Hawking, 2001<sup>3</sup>, 23-27].

<sup>24</sup> After the theory of *parallel* universes there came to be formulated the theory of *multiple* universes, so that a *multiple universe* could contain an infinite number of universes, and each of these universes has different laws of physics. The consequence of the meeting of two universes would produce a Big Bang. At the basis of this theory is the membrane theory, considered the most recent version of the string theory (2008).

<sup>25</sup> One of these problems is also the need to acknowledge moral values [Costache, 2001, 146].



on two ideas: a) science cannot be reduced to simple observation statements; scientific facts are always impregnated by theory, so that theories transcend the experience, and if the respective theories are left aside, under the pretext that they are metaphysical, then science itself is destroyed; actually, *from Thales to Einstein, metaphysical ideas are the ones that opened the way*; b) criticism of induction: induction is a natural tendency of the human spirit, and its validity is indemonstrable, being impossible for logic to verify it; thus, *a statement that would like to be general, will never be verifiable by the observer, as we can never be sure that the inventory has been exhaustive* [Lonchamp, 2003, 132-133]. According to this supposition, *no one can claim 'that he knows', in an absolute sense, that God does not exist. At the most, God's non-existence can be taken as a working hypothesis, based on which one can try to explain the universe. In essence, modern science is in this situation. However, such a methodological approach is aware of its limits. Clearly, the hypotheses stage cannot be passed over, and, as evident as an atheist explanation of the universe might appear, this will never lead to the scientific certainty according to which God does not exist* [Ratzinger, 2008, 73].

5) Crisis moments in scientific research lead to change of *paradigm* and scientific revolution (T. S. Kuhn), as it happened when the geocentrism of those of yore was replaced by Copernicus' heliocentrism, or classical mechanics by quantum mechanics; sometimes the paradigm is totally replaced, as it happened for Ptolemy's geocentric geometry, at other times, the disappearance is not total, for instance, Einstein's relativist mechanics did not disprove classical mechanics, remained valid in its domain [Lonchamp, 2003, 135-136].

6) *Scientific certainty* gets to relativization of scientific truths (Jean-Pierre Lonchamp); a statement is true or false only inside a well-defined conceptual system, endowed with axioms or basic postulates, in which the sense of the terms used is delineated carefully; contemporary epistemology shows that science progresses not accumulating truths discovered one after the other but eliminating errors, which shows that *scientific truths are fragile and provisional* (Euclidian geometry theories stop being true in a geometry starting from other axioms, for example, Riemann's geometry; Newtonian dynamics laws stop being valid in the framework of Einstein's mechanics etc.) [Lonchamp, 2003, 147].

7) Pure social or humanitarian research hardly finds financial support; although states' research policy is guaranteed by scientists, with the title of experts in deliberative forums, there are always some of them to give the green light to sinister events [Lonchamp, 2003, 152]. Einstein's warning remains valid: *we need to be careful and not overestimate science and the scientific methods when it comes to humanitarian problems; and we must not believe that experts are the only ones allowed to give a verdict in matters of organization of the society* [Einstein, 2005<sup>3</sup>, 297].

8) Into so-called the Christian world, although there is total agreement about the general principles, especially regarding the dignity of the human person, divergences emerge when passing from principles to concrete applications [Lonchamp, 2003, 154].

9) One can note an insistent promotion of the *concordism, according to which there should be perfect harmony between the affirmations of the Bible and those of science* or, in other words, religious truths should be confirmed based on scientific truths. This kind of concordism comes from the Antiquity and has continued to our days: Blessed Augustin does not hesitate to support his considerations on the soul by *demonstrations* taken from geometry; other authors assimilated the six *days* of creation described in the *Holy Scripture* with successive geological periods, yet, these extremely long time intervals *are unimaginably beyond individual experience* [Collins, 2007 (EN), 148; Collins, 2009 (RO), 158]<sup>26</sup>; the Big Bang theory has been interpreted by some as a decisive confirmation of the idea of creation {the historian Pierre Chauvin affirmed the concordance between *Big Bang* and *Fiat Lux* of the *Bible*; the astrophysicist Trinh Xuan Thuan, according to whom *in science there is no absolute truth* [Thuan, 2005, 8], appreciates that the idea of *the birth ex nihilo, which used to belong to religion yesterday, seems to have found scientific support in cosmology*; the reformed theologian Jürgen Moltmann launched a project to synthesize the evolutionist theory and the fact of creation, but he is not alone in this attempt (geneticist

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<sup>26</sup> It ought to be mentioned that in support of the evolutionist theory, the authors operate with formulations like *let us imagine, probably* etc. [Collins, 2007 (EN), 192-193; Collins, 2009 (RO), 201-202], which indicates the support of some aspects and stages from the intentional perspective of the respective theory.

Francis S. Collins<sup>27</sup>, astrophysicist Robert Jastrow<sup>28</sup>, practicing Orthodox Christian biologist Theodosius Dobzhansky<sup>29</sup>, biochemist and Anglican priest Arthur Robert Peacocke, the Jesuit Pierre Teilhard de Chardin, the latter being known as geologist, palaeontologist, physicist, anthropologist and Romano-Catholic theologian etc.) [Lonchamp, 2003, 155; Dobre, 2011, 84-86]<sup>30</sup>.

10) One can note that there is a resistance of people to accept the theory of evolution, as it is presented by scientists today<sup>31</sup>. Actually, the world's origin and finality are more of the competence of theology, and the pretence of science of dealing with these aspects becomes vain, unless it takes into account the data of *the divine Revelation* [Costache, 2001, 154-155].

11) If the world were the result of an autonomous evolutive process, then what fact caused, one might rightly ask himself, the ceasing of its evolution after man appeared, and why was the evolution not continued by the emergence of beings superior to man? In the same sense, *no explanation can be found either for the reason why different species of animals, very close to one another, cannot interbreed to give birth to new species, if one claims that they come from one another by evolution, without God's*

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<sup>27</sup> *I have to agree. The Big Bang cries out for a divine explanation. It forces the conclusion that nature had a defined beginning. I cannot see how nature could have created itself. Only a supernatural force that is outside of space and time could have done that... In fact, the God hypothesis solves some deeply troubling questions about what came before the Big Bang, and why the universe seems to be so exquisitely tuned for us to be here... There are good reasons to believe in God, including the existence of mathematical principles and order in creation. They are positive reasons, based on knowledge, rather than default assumptions based on (a temporary) lack of knowledge [Collins, 2007 (EN), 67, 81, 93; Collins, 2009 (RO), 75, 89, 101]. In my view, evolution may have been God's elegant plan for creating humankind [Collins, 2007 (EN), 146; Collins, 2009 (RO), 156]. Science cannot be used to justify discounting the great monotheistic religions of the world, which rest upon centuries of history, moral philosophy and the powerful evidence provided by human altruism. It is the height of scientific hubris to claim otherwise. For this reason, a fully harmonious synthesis must be possible between God's existence and the theory of evolution [Collins, 2007 (EN), 169; Collins, 2009 (RO), 179].*

<sup>28</sup> *Now we see how the evidence of the domain of astronomy leads to a biblical vision on the origin of the world. Details differ, yet, the essential elements and the astronomic and the biblical statements on the 'Genesis' are identical; the chain of events leading to man began unexpectedly at a well-defined moment, by an explosion of light and energy [Jastrow, 1992, 14].*

<sup>29</sup> *Nothing in biology makes sense except in the light of evolution [Collins, 2007 (EN), 141; Collins, 2009 (RO), 150].*

<sup>30</sup> *In fact, even Charles Darwin himself lived in ambiguity, oscillating between the state of agnostic and that of theist [Collins, 2007 (EN), 97; Collins, 2009 (RO), 107]. Moreover, one can remind as well the doubt or the test foreseen by Darwin himself for his theory: *to suppose that the eye with all its inimitable contrivances for adjusting the focus to different distances, for admitting different amounts of light, and for the correction of spherical and chromatic aberration, could have been formed by natural selection, seems, I confess, absurd in the highest degree [Darwin, 1958, 171]. Then he adds the contradiction: if it could be demonstrated that any complex organ existed, which could not possibly have been formed by numerous, successive, slight modifications, my theory would absolutely break down. But I can find no such case [Darwin, 1958, 175]. Yet, from these assertions, a series of questions is born, to which the theory of evolution has not been able to answer convincingly: Why do the living beings have the sense of sight? Why do they need to see the light? Why the alternance between light and darkness? etc.**

<sup>31</sup> *In 2004, the Organisation called Gallup carried out several surveys on the evolutionist theory and faith in God. In one of them, the question was: *Which of the following affirmations is closer to your conceptions on the origin and evolution of humans? (1) Humans have evolved in millions of years from less advanced forms of life, yet, God supervised this process. (2) Humans evolved in millions of years from less advanced forms of life, but God played no role in this process. (3) God created humans nearly in today's form at a point in the last ten thousand years.* The answers of the representative sample of Americans were: 45% chose variant 3; 38% opted for variant 1, and 13% expressed themselves in favour of variant 2. It should be noted that *these statistics remained almost unchanged during the last 20 years [Collins, 2007 (EN), 146-147; Collins, 2009 (RO), 156-157].**

*intervention. Actually, man has, today, the proof that without the Creator's intervention, by the cloning technique, one can only produce pale copies of the original* [Popescu, 2001, 64-65].

12) The fact of the creation of the world, and implicitly of man, by God<sup>32</sup>, is put in balance with the theory of the Intelligent Plan and the theistic evolution<sup>33</sup>, for the last being proposed (Francis S. Collins) as well the term of *BioLogos* [Collins, 2007 (EN), 203; Collins, 2009 (RO), 213]. Collins starts in the formation of the term from the Greek words βίος (= life) and λόγος (= word), referring the latter to the significance of the Word (Logos) for the Christian believers, Who is *synonymous with God, as powerfully and poetically expressed in those majestic opening lines of the Gospel of John: 'In the beginning was the Word, and the Word was with God, and the Word was God' (John 1: 1)*. Therefore, for Collins, the term '*BioLogos*' expresses the belief that *God is the source of all life, and that life expresses the will of God* [Collins, 2007 (EN), 203-204; Collins, 2009 (RO), 213-214]<sup>34</sup>, Who used, according to the same scholar and many other scientists, the procedure of evolution.

13) The theological faith, based on the *Revelation*, shows that God is mystery and remains mystery, which will never be encompassed by man's reason. Along with the theological faith, also called Christian, there is also a philosophical or metaphysical faith, based on reason, not on the mind, by which faith man gets to accept a God, understood as *principle and cause of everything that exists*. Yet, the God Who uncovered Himself by *Revelation*, as being One, but in three Persons or Hypostases, cannot just be identified with the God of metaphysics [Lonchamp, 2003, 157-158].

14) One ought to take into account the evidence of Jesus Christ's existence and the authenticity of the four *Gospels*, confirming that Jesus Christ was not just a man, not even *a great spiritual teacher*, but God's Son, true God and true Man [Lewis, 1952, 45, apud Collins, 2007 (EN), 225; Collins, 2009 (RO), 235; see also Strobel, 1998; Blomberg, 1987; Habermas, 1996; Bruce, 2003], as only He could suffer and die for our sins, *because He is Man*, and could do this *perfectly, because He is God* [Lewis, 1952, 50, apud Collins, 2007 (EN), 222-224; Collins, 2009 (RO), 232-233]. According to Saint Maximus the Confessor, man needs to get to unity of knowledge in Christ, as He is *the key and fundament of the*

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<sup>32</sup> On the Christian cosmology in parallel with the theories of modern physics, see Petcu, 2008.

<sup>33</sup> Collins is the promotor of the term and conception of *theist evolution* (supported by *serious* biologists, simultaneously, *serious believers*, including Asa Gray, *Darwin's main supporter in the United States*, Theodosius Dobzhansky, *artisan of the 20<sup>th</sup> century evolutionist thinking*, and pope John Paul II), to fight both atheism, and the Intelligent Plan movement. Appeared in 1991, to counterbalance the lack of success of the teaching of creationism in the American schools, this movement is supported by Phillip Johnson, Christian lawyer at Berkeley University, California, Michael Behe, molecular biology professor, and William Dembski, mathematician specialized in the theory of informatics [Collins, 2007 (EN), 181-195, 199; Collins, 2009 (RO), 190-206, 209]. In 2005, the president of the United States announced his partial support for the Intelligent Plan theory, affirming that schools ought to include this perspective in their curriculum as well, when the theory of evolution is taught [Collins, 2007 (EN), 181; Collins, 2009 (RO), 190]. Regarding the typical version of the *theistic evolution*, six premises have been formulated [see Collins, 2007 (EN), 200; Collins, 2009 (RO), 210], of which I cite the last: *humans are also unique in ways that defy evolutionary explanation and point to our spiritual nature. This includes the existence of the Moral Law (the knowledge of right and wrong) and the search for God*, these two facts characterizing *all human cultures throughout history* [Collins, 2007 (EN), 200; Collins, 2009 (RO), 210]. For the criticism expressed against the theistic evolution, see Newman, 2003, 117-128; Collins, 2007 (EN), 201-206; Collins, 2009 (RO), 211-217.

<sup>34</sup> *BioLogos doesn't try to wedge God into gaps in our understanding of the natural world; it proposes God as the answer to questions science was never intended to address, such as 'How did the universe get here?', 'What is the meaning of life?', 'What happens to us after we die?'* Unlike *Intelligent Design*, *BioLogos is not intended as a scientific theory. Its truth can be tested only by the spiritual logic of the heart, the mind and the soul* [Collins, 2007 (EN), 204; Collins, 2009 (RO), 214-215]. *In that context, evolution would appear to us to be driven by chance, but from God's perspective the outcome would be entirely specified. Thus, God could be completely and intimately involved in the creation of all species, while from our perspective, limited as it is by the tyranny of linear time, this would appear a random and undirected process* [Collins, 2007 (EN), 205; Collins, 2009 (RO), 216].

*unity of knowledge of the whole creation.* Man can discover the reasons of creation by cultivating the relation with the divine Logos, *Who is the Source of all that exists and to Whom all the reasons refer.* Therefore, the discovery of the world's reasons represents a *stage of the spiritual life*, by the participation to life in Christ. What makes a difference between man and the rest of creation is the possibility of deification of man by uncreated divine grace. Thus, the discovery of the world's reasons is no less a theological approach than the knowledge of God, *because, despite the radical distinction between created and uncreated, the knowledge of the world and of all that exists, which He invites us to, is realized by God's grace, namely by a theological way* [Ionescu, 2015, 186].

## 5. CONCLUSIONS

A correlation between creationism and Darwinism, via certain theories, like the biologos or pantheism [about three versions of pantheism see Gregersen, 2007, 13-46], can lead to new confusions, unless one considers the fact of creation as it is lived by the Holy Fathers of the *one Church*. A scientist can research the functioning mechanisms of an organism, but not isolating them from the purpose of creation, while a Holy Father, him, too, a scientist in spirituality and divinity, highlights the purpose and the accomplishment of creation. The two can meet or can differ as perspective, depending on the personal vision assumed, but also on the objectiveness of the experiences accumulated. This does not mean a cultivation of some conflict between religion and science, in other words, between theology and science or, by extension, between faith and reason. On the contrary, if each domain stays 'in its own realm', namely turns to its specific investigation tools, with no mixture, then it can be noticed that *the divine Revelation mysteriously transmits the essence of the Truth, which, then, sciences are feeling in its details of the order of the phenomena, each with the means specific to it* [Galeriu, 1998<sup>2</sup>, 5].

Actually, the attempt to integrate God *in an evolutionist world* has many shortcomings, because it limits Him to various *hypotheses* and *theories*, of which some get to become, as the scientific research advances, obsolete<sup>35</sup>. Moreover, one no longer recognizes or accepts the *negative* influences or energies, drawn on the environment and, implicitly, on people by man himself, through his sins, nor can one understand how the world, with all its things, *very good* (*Gen. 1: 31*), which God *created and put in order* (*Gen. 2: 3*), has got into a state, rather of involution than of evolution, coming to pass, seemingly, the warnings expressed even since 1943, on *the imbalance of the soul caused by the mechanization and cerebralization of human life* [Firca, 1998<sup>2</sup>, 9]. The crises that the contemporary society is going through, even the Covid-19 pandemic, reflect the tragic situation of the man with no spiritual beacons, subjected to consumerism and *creator* of pollution, under different forms, as never before in the past of mankind.

Yet, recognizing the fact of creation allows man to assume certain responsibilities, which he can accomplish even with the help of science, in order to perceive and apply the respect deserved towards the gift of life and of the world. *True science, bearing the seal of human relativity, has known to humble itself in front of the divine absolute*, so that a scientist, according to *the great Christian scholar and confessor* Nicholas C. Paulescu, *cannot content himself with affirming: 'Credo in Deum'. He must affirm: 'Scio Deum esse'* [Galeriu, 1998<sup>2</sup>, 5; see also Codrescu, 2010; Codrescu, 2019<sup>3</sup>]. In this way, he will understand the differences between knowledge by faith and knowledge by reason, their limits and their common points, the reality of the holy-spiritual life and the role of the biological life, having the possibility even to refer himself, from the perspective of these two kinds of knowledge, to the words of Saint Paul the Apostle, *by faith we understand that the worlds were framed by the word of God, so that the things which are seen were not made of things which are visible... But without faith it is impossible to please God, for he who comes to God must believe that He is, and that He is a rewarder of those who diligently seek Him* (*Hebrews 11: 3, 6*).

The creation is not a fact of the past, but an action of God also in the present [Vlăducă, 1998, 131; Popescu, 2001, 56-57]. For this reason, there are major differences between the autonomous cosmology and the theonomous theology in relation to God. According to the autonomous cosmology, God is considered *the primary cause* of all things, but between Him, as Creator, and His creation, the *seminal reasons* (Blessed Augustine) have been interposed, perceived as *secondary causes*, which

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<sup>35</sup> Namely these *hypotheses* and *theories* no longer avail themselves, for various reasons, of *absolute exactitude* and *objectiveness* [Firca, 1998<sup>2</sup>, 11, 17].

influenced the vision, also passed on in the scientific environment, actually, that *the world is developing exclusively by itself* [Popescu (1), 2001, 99-100]<sup>36</sup>. The consequences of this vision were multiple, as, by it, *the bases of the secularization process were laid, which closed man in his own immanentist sufficiency, with all the series of negative existential consequences, especially for his moral life* [Popescu (1), 2001, 100], so that from the deism of the Roman-Catholic Christian theology, people passed to the tragic fideism of the Reformation, *and then, in a new reflex, the illuminist humanism was going to give birth to the contemporary atheism* [Popescu (1), 2001, 99-100-101].

In the Orthodox Christian theology, cosmology is theonomous, meaning that the reasons of creation are not seminal, namely do not work autonomously and independently from God, but are referred, through the Holy Spirit, to the supreme Reason or the creator Logos, *through Whom all things were made*<sup>37</sup>. This truth, experienced in the Holy Church Fathers' lives, shows that God, the One God glorified in the Holy Trinity, by His providential work<sup>38</sup>, is in all things, moving the natural reason in each, He Himself remaining, however, transcendent<sup>39</sup>. According to these Holy Fathers, God, as Creator, exists eternally in the now, while each creature receives its existence at the right time, passing from the state of potential into the state of act when He wills [Popescu (1), 2001, 102]. In this way, the Holy Fathers go beyond the controversy between creationism and evolutionism, as they are *in favour of a process of continual creation of all the things, controlled by the divine Logos, the supreme Reason. This process has its departure point in the initial creation (creatio originalis) and will be crowned by the final creation (creatio finalis), at the Lord's Second Coming, by a new sky and a new earth, which mean the transfiguration of the entire creation* [Popescu (1), 2001, 103]<sup>40</sup>. The accomplishment of this transfiguration of creation reveals the truth that the universe is *a living organism availing itself of an inner order permitting it to stay open to the Creator* [Popescu (2), 2001, 111]<sup>41</sup>.

Therefore, the autonomous cosmology gives birth to the evolutionist theory, with a double approach, one, denying God's existence, another, finally accepting His existence, speaking of a creationist evolutionism<sup>42</sup>, which, however, isolates God in the transcendent and prioritizes the vision of a

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<sup>36</sup> *The world cannot become autonomous, according to Father Dumitru Popescu, because it has neither conscience, nor liberty in order to break its internal connection with God. On the contrary, autonomy is the state of sin of man, who closed himself in himself and broke the connection of the communion of eternal life with God, falling into corruption and death. By the state of sin, man draws the world in this corruption, so that the world groans, according to Saint Paul the Apostle (Rom. 8: 20), to be delivered from the bondage of corruption, provoked by man, in order to arrive into the glorious liberty of the children of God, namely to a new form of existence, acquired by the man who attained the holy-spiritual perfection, since the entire creation discovers its sense in man* [Popescu, 2001, 59, 64].

<sup>37</sup> As confessed in *article 2 of the Niceo-Constantinopolitan Creed*, namely of the *Symbol of faith* composed at the first two Ecumenical Councils (Nicea, 325; Constantinopol, 381) of the Church and kept, with no modifications, in the Orthodox Church to this day.

<sup>38</sup> Which represents a work of the uncreated divine grace.

<sup>39</sup> This transcendence should not be understood in a deistic sense, but according to *the divine Revelation*, experienced by the Holy Fathers, therefore, God is, as mentioned at the beginning of this study, transcendent to the world according to His being, but becomes immanent by the work of the uncreated divine grace, so that He does not confuse Himself with the world either, removing any form of pantheism.

<sup>40</sup> *The transfigured sky and earth will become universal Pentecost and generalized Tabor* [Popescu, 2001, 71].

<sup>41</sup> The scientific or actually biological anthropology does not turn to the experiences of the Saints of the Church of Christ, and by them to the data of *the divine Revelation*, this is why it *cannot make any serious supposition regarding the ultimate implications of the convergence man-world; in other words, it cannot describe a transfigured form of the world (especially as the idea of an entropic universe, on the verge of dissolution, threatened, according to some cosmological models, by the great final implosion, persists)*, see Costache, 2001, 156.

<sup>42</sup> From this perspective, one could expect the theory of evolution to contribute to the reconciliation between faith and science, although the creationist cosmology, based on *the divine Revelation*, remains radically opposed to the evolutionist cosmology. Actually, the theory of creationist evolution *is devoid of*

mechanistic universe, based on a mechanistic metaphysical conception about the world. These approaches have led to secularism and, consequently, to the gap between the technological progress and the spiritual and moral regress of the contemporary man. At the opposite pole, the theonomous cosmology highlights the purpose of man on earth, the need for moral and spiritual life, and the transfiguration of creation [Popescu (1), 2001, 102-103; Popescu (2), 2001, 108-109]<sup>43</sup>, realities understood and lived, according to the Holy Fathers (Athanasius the Great, Basil the Great, Maximus the Confessor etc.), by the continuous work of the Holy Trinity in the creation, namely of God the Father, through His Son Jesus Christ and the Holy Spirit, so that Jesus Christ represents the beginning, the middle and the end of the centuries, in other words, this cosmology has in view *the creation of the world, its virtual restoration in Christ and in the Church, and its plenary transfiguration at the Lord's Second Coming* [Popescu, 2001, 61].

Theologizing means living the content of *the divine Revelation* on the personal level, whereas any form of metaphysics leads man to rationalization and imagination, to self-deification or atheism, so that theology, fruit of the living of the states of cleansing, illumination and deification, is not identical with metaphysics [Popescu (2), 2001, 111], nor with the scientific theories on the world. *Far from the idea of the evolutionist autonomy, the world is the result of a work of continual creation, undertaken by God by means of His energies, as a dynamic relation between the Creator and His creation* [Popescu (2), 2001, 111]. To understand this reality, *science ought to be not purely descriptive but, equally, interpretative*, a fact supposing, by the morphological theories, the acceptance of an *interdisciplinary language* [Lemeni, 2001, 129], in which one ought to accept *the divine Revelation* data as well, which will permit a sincere and objective, honest and beneficial dialogue between theology and science. In this way, theology, having as objective principle *the divine Revelation*, interprets the models proposed by science, inciting the scientific research towards new formulations. This means that science will finally get to consider the evidence of *the divine Revelation*, yet the delayed realization of this fact causes many of the insufficiencies of the contemporary societies, insufficiencies paid, however, with much loss of human lives and global environmental damage. To avoid these aspects, science ought not to impose itself, but ought to consider the *divine Revelation* data, in order to realize the dialogue and the reconciliation between reason and faith [see Savin, 2003 (I-II); Nesteruk, 2003; Nesteruk, 2008 (for the translation into Romanian, see Nesteruk, 2009); Thuan et al., 2008; Lemeni (coord.) et al., 2013 (I), 2014 (II); Mihalache, 2016 (I-II); Apetrei, 2018] for the good of man and of the entire creation.

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*clarity concerning the beginning and the end of creation, because it has left itself influenced too much by the pantheistic ideas of the oriental religions and has drifted away from the perception of the fact of creation, in a biblical sense, which has nothing to do with the confusion between Divinity and cosmos, met in the respective religions. The evolutionist oscillation between deism and pantheism is explained by the fact that people have not discovered the way God can intervene personally in the creation, to model and lead it, from the inside, to its ultimate transfiguration in Christ* [Popescu, 2001, 51, 55, 58, 60, 69].

<sup>43</sup> *However much man may explore, autonomously, life and the universe, according to the philosopher Peter Țuțea, he has no access to the truth without revelation, because he is stumbling in the truth of all truths, namely the unique Truth, the principle of all things, Who is God. (...) Without God, without faith, man becomes a rational animal, coming from nowhere and going nowhere* [Țuțea, 2020].

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