

## Evolution and the Book of Genesis (by fr. Michael Chaberek O.P.)

S2. There are two interpretations of Genesis present in contemporary Christianity. These are theistic evolution and young earth creationism. I would like to explain both of them and show why, in my opinion, neither of them is satisfying.

Young Earth creationism is less popular. It is typically adopted by Protestant fundamentalists, however, there are proponents of YEC among Catholics, Eastern Orthodox Christians as well as Orthodox Jews. YEC sticks to the literal and historical reading of Genesis in such a way that it excludes any informative input from outside of the biblical text. Thus the Bible is the sole determinant of interpreting the Bible. This approach is congruent with the Protestant principle of SOLA SCRIPTURA, however it is not congruent with the Catholic approach. YEC falls into the category of BIBLICISM.

Fr Paul Robinson defines biblicism as follows: “Biblicism is the practice of using the Bible as an exclusive determinant of truth, especially in its strict literal sense. The biblicist begins by holding that certain passages of the Bible can only be interpreted in their proper literal sense. Then, clinging to that sense as infallibly true, he refuses to allow any information from outside the Bible to deny that interpretation. Such information would include the data of science, arguments of reason, and even statements of the Church’s Magisterium. In the end, biblicism is simply a species of the Protestant doctrine of sola Scriptura”.

The proponents of YEC believe that the universe is only about six thousand years old (the age is determined by the biblical genealogies). They also claim that planets, living beings and humans were created in the order given by the Biblical account.

S3. There are several problems with YEC. They come from both science and faith. The first problem is scientific. There is

--Overwhelming scientific evidence for the old universe (dating about 13.7 bln years) from geology, paleontology and cosmology.

--If we read the Genesis account carefully we realize that six natural days do not give enough time to cover all of the creative events. For example, on the sixth day there is the creation of the animals, the creation of Adam, Adam converse with God, Adam gives names to all animals, Adam falls asleep, Eve is created. Only the creation of Eve completes the works of creation. It is hard to imagine that all of this happened within one day. Then Genesis (2:2) says: “By the seventh day God completed His work which He had done, and He rested on the seventh day from all His work which He had done”. God is still at rest (regarding the creative activity), therefore the seventh day lasts throughout the centuries until now. This means that the seventh day is a very long epoch not a single day. If one of the days is definitly not a single natural day then there should not be a problem to say that also other days are epochs rather than days.

--Church tradition is a natural milieu for interpreting the Bible. But in the Church tradition there were different interpretations of the Genesis account. For example,

--St Augustine believed that things were craeted all at once, so that the distinction of the six days of creation does not mean a lapse of time but the progress of angelic knowledge in the understanding of the divine works of creation. Even though Augustine’s interpretation is excluded by modern scientific data it tells us that there were different understandings of the day of creation in the Church.

--In 1909 the Pontifical Biblical Commission, speaking on behalf of the Pope, explained that the Hebrew word [*yom*] standing for “day” from the Genesis account of creation can be understood as a natural day or any other period of time. YEC limits the

interpretation to the natural day against this ecclesiastical pronouncement. Therefore, YEC is at odds with both the holy tradition and the teaching authority of the Church.

S4. Another approach to the Biblical account of creation is called theistic evolution. This is a theological concept of the origin of the universe that claims that God used the evolutionary process as the way of creating the universe.

S5. Here I listed just a few crucial problems with theistic evolution that I would like to comment upon now. Theistic evolution encounters problems from both science and faith. In other words, it neither represents good scientific account of biology nor any good theology or an accurate biblical interpretation.

--The first problem is that theistic evolution tinkers with the Christian notion of creation. It deprives it of its essential meaning. According to the Christian traditional theology, a creative act is always direct and supernatural. This means that there is no secondary causes in creation. It is God who works directly in nature while forming it. Obviously, God is a supernatural entity, therefore, His creative work by definition is supernatural. But in theistic evolution supernatural causality is excluded. God is supposed to work entirely through the natural secondary causes. Theistic evolutionists often claim that by proposing evolution as a natural cause of the emergence of species they avoid "interventionism" and "occasionalism".

It is important to clarify here that a creative act on the part of God is not a kind of intervention. Intervention is like entering into a chain of causes and effects in order to change the route of this chain. For example, let's take a tragedy like a boy hit by a car. We see that there is a chain of causally connected events that lead to that tragedy: the boy is invited out by his friends, the boy takes a ball with him, the boys start to play soccer, one of the boys hits the ball out of the field, the boy starts chasing the ball, he doesn't see the incoming car. The car hits the boy. This is a chain of causes and effects. A natural intervention in the chain would be, for example, if a teacher watching the boys, shouted; "Watch out!" to the boy. The boy stops before entering the road and the car passes. In this case the teacher is the natural secondary cause that intervened in the event. There could be also a supernatural secondary cause, like a guardian angel who stops the boy even before he leaves the house, or before entering the road. Sometimes we don't know why and how things change their course but they change. In some situations we have reasons to believe that there was a supernatural intervention that changed the course of events. A good example of a supernatural intervention is the Annunciation by Archangel Gabriel to Mary that she would become the Mother of the Messiah. There was some chain of events in the life of Mary. But the angel comes and changes the course of these events. This is a supernatural intervention.

Now, in creation there is no intervention, because the creative event begins the chain of causes and effects. Before a thing is created it does not participate in any chain, once it is created it starts a chain and becomes a part of a chain, in fact any thing is a part of multiple chains of causes and effects. But the creation itself, the very moment of creation, is outside of any causal chain and thus creation is not an intervention. For this reason the belief in direct creation of species is not a form of interventionism.

In creation there is no secondary causes. But according to theistic evolution, evolution is a secondary cause of creation. So theistic evolution goes straight against the Christian understanding of the nature of the creative act.

Another problem stemming from the faith is that creation was completed with the creation of man. This is clearly taught by the Bible and the Christian tradition. But creative evolution did not end, it will last until the end of the world. Therefore, theistic evolution cannot accommodate anything like a COMPLETION OF CREATION. This is why theistic

evolutionists coined the term “continous creation” as if God was continually creating the universe in the same way as He was creating it over the six days. Christian tradition knows the concept of the “CONSERVATION OF THINGS” which means that God maintains things in existence all the time. But the CONSERVATION of things is not the same as the CREATION of things. In the conservation nothing entirely new emerges, whereas in creation completely new kinds of beings are formed. Theistic evolution confuses the divine maintenance of the universe with divine creation, which is a peculiar type of divine activity that lasted from the first moment of creation out of nothing, until the creation of man.

--The abandonment of the historical reading of Genesis (against the PBC Decree from 1909)

The Pontifical Biblical Commission in the 1909 decree says:

“The literal, historical sense cannot be called into doubt, regarding: (among others things) the creation of all things by God at the beginning of time; the special creation of man (peculiaris creatio hominis); the formation of the first woman out of the first man (formatio primae mulieris ex primo homine); the unity of the human race; the original happiness of our first parents in a state of justice, integrity and immortality; the command given by God to man in order to test his obedience; the transgression of the divine command, with the devil under the appearance of a serpent as counselor; the casting out of our first parents from that primæval state of innocence; and the promise of a future Redeemer”.

--A naive belief in „scientific theories” at the cost of the scientific facts

One example of how the theory strays from the facts is the fossil record. The fossil record shows a sudden appearance of all species and the fact they do not change over millions of years of their existence. So they appear suddenly and they do not change. This is not congruent with biological macroevolution which assumes that animal species are flexible like clay. (Mind that according to biological macroevolution, there is virtually no limits to the organic flexibility of living beings). Theistic evolution ignores the stability of the animal forms which is tantamount to ignoring the scientific data from paleontology.

Theistic evolutionists take for granted the grand claims coming from the Darwinian science, such as „all living beings come from a single ancestor”, or „all organs and species were formed by random genetic mutations and natural selection”. These are very big claims that still lack evidence. My colleagues have been showing problems of biological macroevolution that stem from the science of biology itself. Yet, theistic evolutionists seem to ignore those questions. They do not even try to establish whether biological macroevolution is physically possible. Multiple experiments show that new biological information is not generated randomly, for example, by random mutations and natural selection. There is no reason to incorporate biological macroevolution into theology if it hasn't been established in science.

--The philosophical problems of theistic evolution

I explained them yesterday. Theistic evolution is not compatible with classical metaphysics. This is a problem, because the main dogmas of the Christian faith are explained within the framework of the classical metaphysics. Abandoning classical metaphysics means that we do not understand and cannot explain our basic doctrines of faith.

S6. [According to Aquinas, there are two senses in the Holy Scripture – the literal and the spiritual. The literal sense may be further divided into historical, etiological, analogical and

parabological (metaphorical). The spiritual sense includes allegorical, tropological and anagogical. Only the literal sense, can be used to make a theological argument)]

Modern exegesis favors a highly figurative reading of the Genesis account of creation. But the Church – even in her most current teachings – has never excluded the historical understanding of the first chapters of Genesis. So, the fact that the Church allows the figurative interpretations does not mean that Genesis becomes just a figure of speech. To say that there are metaphores in Genesis 1-3 is not tantamount to saying that Genesis 1-3 is a metaphor altogether. If we look at the historical development of the Catholic understanding of the biblical interpretation we can see that first the Church confirmed the realistic, that is, historical and literal meaning of the essential elements of the biblical history. We see it in the PBC decess from the early 1900s. So, the Church first confirmed the ancient tradition of reading Genesis historically. And later (especially after the Second Vatican Council) the Church confirmed that BESIDES the literal historical meaning the same text have other meanings, such as the moral and the spiritual. This does not mean that the Church currently excludes, abandons or forbids the literal and historical reading. The Church simply confirms the old tradition which says that there are multiple senses in the Holy Writ.

However, modern exegesis diminishes the realistic meaning of the Genesis account of creation. I would say that there are several ways of how it happens. Here I listed three ways of reducing the message of Genesis to only one aspect of it. I call it “reductionism”. For example, some say that:

--Genesis 1-3 echoes the Babilonian and Middle Eastern cosmogonies and mythologies.

There are some similarities between Genesis and some of the ancient myths. But this is just one aspect of Genesis. This does not mean that Genesis is just one of the ancient, Middle Eastern myths. On the contrary, the difference between the Book of Genesis and myths is that myths are not historically true whereas Genesis is. The historical account of Genesis cannot be reduced to mythology.

--Genesis 1-2 is a hymn praising divine works in creation (religious poetry).

Again, it may be true. Egetes find a nice structure in the verses describing the creation events. For example, the fourth day is parallel to the first day, the fifth to the second and the sixth to the third day. However, this structure stems not from the fact that the Author had poetic inclinations, but rather from the fact that God creating the universe acted in a beautiful and orderly manner, and by the very fact that Genesis recounts the historical divine acts it also forms a beautiful hymn with clean logical order. It shouldn't be surprising to anyone that divine creative acts were beautifully ordered. But some exegets believe that Genesis 1-3 is JUST a poetry, and thus has no any realistic meaning. They reduce Genesis account of creation to religious poetry.

--Genesis 1-3 teaches „how the heaven goes not how one goes to heaven” (reduction of the metaphysical and historical content to the moral and spiritual). This saying was first popularized by Galileo in the 17th c.

Contemporary theologians use the Galileo's saynig to exclude any authority of the Bible that would have other than moral meaning. So, by quoting Galileo they make a division in the Bible between the message about the nature of the universe and the moral teachings and then they claim that the Bible does not teach anything about the universe. Thus

this popular phrase is used to exclude the metaphysical and cosmological message of the Bible and reduce it to morality alone. The Bible is relegated to speak just about the invisible.

Let's look carefully at the Galileo's saying: "the Bible does not teach how the heaven goes but how one goes to heaven". The first part is tantamount to saying that the Bible is not a science textbook. This means that the Bible does not teach us about nature, how it operates. And this is true. I admit that it is not the goal of the Bible to teach us about the laws of nature operating in the universe; the Bible does not teach us how the universe is built, what are the relative positions of the planets, it does not teach how physics, biology or chemistry work. The controversy over heliocentrism emerged precisely because some theologians wanted to learn about the planetary system from the Bible, so they assumed that the Bible can teach us which planet is in the center of the cosmos, whether it is the Earth or the Sun. But the Bible is not concerned with this kind of issues. The first part of the saying, therefore, is correct. What about the second part? "The Bible teaches us how one goes to heaven" means that the Bible gives us moral teachings of how to live our lives. It provides us the message about the human sin and the redemption by Christ and the salvation in Christ. So the second part of the saying is also true, but it is incomplete. The Bible does not teach morality alone, one cannot reduce the biblical message to ethics (even if ethics is taken in a broad sense, including all teachings about divine grace, the sacraments, mystics, etc). The Bible also teaches a worldview. This means that it teaches where the universe came from and where it is headed to. It teaches about the origins and about the end of the universe, and also about the origin of the humankind and the destination of the humankind. The Genesis account of creation teaches us about the origins of the universe, and this teaching is not reducible to the moral or spiritual teachings about how God loves every person and all creation. Biblical metaphysics is not reducible to ethics.

We can therefore say, that the saying popularized by Galileo is essentially true, but it also misses an important part, namely that the Bible teaches us not just how one goes to heaven, but also where the heaven came from and where it is headed to.

S7. As a summary we should notice that YEC diminishes science by rejecting the evidence for the so-called "deep time". Currently science estimates the age of the universe at about 13.7 bln years, whereas YEC can accommodate a maximum of 10 thousand years. Even if science is wrong about the precise dating and even if YEC may be extended to, let's say, a 100 thousand years, these are still two different orders of magnitude. These two time-scales cannot be combined into one coherent worldview. YEC by adhering to the strictly literal reading of Genesis adopts the mistake called "biblicism" and by doing so, it strays from the Catholic approach to the Bible.

On the other hand theistic evolution diminishes the Christian belief in creation and the historical sense of the Bible. Theistic evolution has been proposed as a solution to the conflict between the macroevolutionary theories proposed in modern science and the traditional Christian teaching on creation. Theistic evolution seems to nicely combine the two. It looks like an easy solution to a difficult problem. However, easy solutions are not always correct. The fact that theistic evolution looks good does not mean it is true. Very often true solutions are quite complex. True explanations may be not the satisfying ones, they may not look neat and nice. In fact theistic evolution gained an overwhelming popularity precisely because it is easy to comprehend by non-specialists. It also allows to maintain a materialistic worldview with the impression of saving the basic religious tenets. In this way theistic evolution alleviates the tension between science and faith, but it does it at the cost of faith. Theistic evolution is poor science and even worse theology.

We see that neither YEC nor TE is a proper way of approaching the Bible in the context of modern science. Are we left with any alternative? In order to look for an alternative, first we need to ask, what kind of requirements should meet the modern Catholic biblical interpretation. I listed here three basic requirements (perhaps there are more than these, but these seem the most important, at least when it comes to the question of interpreting the initial chapters of the Book of Genesis).

--the concept of the TWO BOOKS (one truth); in accordance with the solemn teaching of the Fifth Lateran Council, we need to look for such an interpretation of the Bible that will not exclude science. In other words, our theological interpretation must be compatible with reason (that is, sound philosophy) and science. Catholics cannot adopt the concept of NOMA (non-overlapping magisteria) which says that religion has its own and science its own truth. According to NOMA, one can have a completely coherent biblical faith and at the same time one can have a completely coherent scientific worldview and still these two may contradict each other. According to Catholicism, this can't take place. The two books (the book of nature and the book of the Bible) tell one story from different vantage points. Catholics believe in one reality and one truth, this means that science cannot contradict faith and faith cannot contradict science.

--the realistic historical reading of Genesis; it is the tenet of the holy Tradition confirmed by the Church authority that the crucial elements of the Genesis narrative of creation are historically true. This means that Genesis is not reducible to figures of speech, metaphors, myths or poetry.

--the acceptance of scientific FACTS and DATA; Catholics cannot reject scientific facts and data. Facts and data is a type of knowledge about nature that is proven and verifiable. Facts and data are not the same as theories. Biological macroevolution is not a fact. It is just an interpretation of facts, which actually forces the facts into a philosophical framework which is contrary to sound philosophy. Catholics cannot challenge facts, but they are entitled to challenge the theories of nature – those which contradict the faith. If a given theory contradicts the faith it is a Catholic duty to prove such theory wrong.

S8. The alternative to YEC and TE is Progressive Creation (PC). It consists of two major claims: (1) God created things by His supernatural and direct power. Specifically God created different species of animals and plants directly by infusing new forms into matter that He had previously created in the so-called first creation. PC is different from TE because it accepts the direct divine causation in the formation of the universe. PC is not interventionism or occasionalism, because divine creative act is not an intervention. Progressive creation accepts the classic Christian reading of the Genesis account of creation. It accepts that creation happened over time (not in one moment). Progressive creation following the Christian tradition accepts that the creation and the formation of the universe is a work of God alone. No creature can be an active help to the creative work, even as just a secondary (instrumental) cause. PC is congruent not just with the Bible, but also with the sound philosophy.

The second crucial tenet of PC is the adoption of the scientific time-scale for the creative events. Since the problem of the age of the universe is not theological but scientific it is science that is competent to establish the age of the universe. At the same time (unlike theistic evolution) progressive creation is independent from the scientific knowledge about the age of the universe. Even if it turned out that the age of the universe differs dramatically from what contemporary science tells us it would not have any impact on PC. It is because

God might have created the universe in whatever time, either very short or very long. The time-line of the creative events is not essential for the doctrine on creation.

S9. Progressive creation may be summarized in the following three points:

1. It is compatible with the historical and literal reading of Genesis, as well as the classical Christian interpretative tradition. Thus, it is compatible with the Bible as understood by the Church over the centuries.

[Progressive creation is also compatible with the two classical Christian claims about the nature of divine creative work. 1. The first claim is that the creative work was finished once for all with the advent of the first man. 2. The second claim is that divine works are perfect. In evolution (as I explained yesterday) divine works are imperfect and this is why they have to be brought to its completion by evolution. But in Catholic theology one cannot say that divine creative work is incomplete or imperfect. They are perfect, though we need to understand the perfectness properly. Things created by God are not perfect absolutely, but according to their natures (or a natural capacity of receiving perfection according to what they are). So, for example, a lizard is perfect as much as it is a lizard, and a lion is perfect according to what it means to be a lion. They were created perfect initially, however, over the course of time they might have degenerated and deteriorated, in the same way as all material universe deteriorates over time. This kind of the initial substantial perfectness of created beings is lacking in theistic evolution, but not in progressive creation.]

2. Progressive creation is compatible with the “sana philosophia”. I explained the philosophical problems of theistic evolution yesterday. They do not take place in progressive creation. For example, in PC there is no need that the accidental change produces the substantial difference. Creation of a new species consists of God bringing out of nothing the new substantial form and implementing it in matter. This means that the new substance begins to exist by the direct divine causality.

3. The compatibility with all scientific FACTS and DATA. For example, the Cambrian explosion of life is not a problem for progressive creation, because God could have created many different animals, according to their kinds, at one time. The increase in functional complexity and the increase in information in biology over time are huge problems for theistic (and atheistic) evolution. But they are not problematic for progressive creation, because God has the power to create and insert new information in the form of new biological structures over time.

The concept of PC meets all of the requirements that must be met by any modern exegesis of the Biblical account of creation. It is a third way between the false alternative of theistic evolution and young earth creationism.