

Thinking Tool for Evolutionary Creation: God as Heterophenomenological Subject

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Abstract. Theological thinking is hard. It takes various forms depending on its object of reflection, and needs to be doctrinally informed, contextually appropriate and methodologically consistent. Theological thinking about evolutionary creation meets all said conditions and restrictions on some sort of a larger-than-usual scale. I, thus, introduce a thinking tool – intuition pump, as Daniel Dennett calls it – that can help us theologically contemplate evolutionary creation. This approach aims to put together and to combine evolution and creation within the context of the structure and form of Dennett’s proposed methodology and thought experiments using at one instance Gödel’s incompleteness theorems. This intuition pump has its implications and effects in other theological domains (Trinity, Christology and Sacramentology) but its natural context lies within theology of creation. I will start by presenting Dennett’s heterophenomenological method for scientific research of consciousness, stretching our theological imagination by using it. This thinking tool enables us to see this world as God’s heterophenomenological world. At the same time, it enables us to recognize and confirm intrinsic properties or essences in nature and it warrant thinking about historicity of Adam and Eve.

Keyword: Daniel Dennett, heterophenomenology, theological thinking, intuition pump, intrinsic essences

Introduction: theological thinking

Theology is a dialogical journey that contextually depends on different forms of conditions and restrictions that usually fit our world and everyday life. One needs to restrict oneself to find meaningful and worthwhile reasons for accepting the inherited forms of truths – formal or informal systems of belief (truth propositions or orthodoxy, and forms of life or orthopraxy) that we all are in some way initiated into. The same restriction can be applied to various forms of our everyday experiences, from musical taste, preferable philosophical and metaphysical stance, professional careers, and finally religious belief. Every choice we make, whether it was consciously, or we simply find ourselves in one moment in our life in a certain position or situation that we were consciously or unconsciously initiated in, matters. And every choice brings us one step further, hopefully closer to our goal – if there is a goal, and if we put that goal intentionally in front of ourselves.

Theology is no exception when it comes to the need of limiting itself within its dogmatically conceptualized and canonically determined denominations. On the other hand, theology is a humanistic and heuristic science which is autonomous but not fully detached from religious authority. This is the case, at least, when the Catholic theology is in question – and I am a Catholic theologian. Therefore, when thinking theologically about evolution and creation – evolutionary creation – I need to keep in mind that there are some dogmatically characterized limitations to this topic and my theological research, as long as I want to remain a *Catholic* theologian. These limitations are mostly seen as bedrocks of various misunderstandings when it comes to faith and science – creation and evolution. Here, I wish to elucidate said points of misunderstandings by introducing into theological thinking a thinking tool, an intuition pump. At the same time, I wish to confirm a fundamental motto of *Fides et ratio* that John Paul II., repeated from the First Vatican Council and *Humani generis*, having stated that truth cannot contradict itself, even though “there exists a twofold order of knowledge” (FR, 9) that brings us to the truth. We need to have both *wings* to be able to reach our goal, our final destination: (T)ruth itself.

1. Problems involved in evolutionary creation

First, let me name a few, the most common, of misunderstandings and limitations. I find them in *Humani generis* and in contemporary public debates between evolutionists and creationists. *Humani generis* mainly refers to “those questions which, although they pertain to the positive sciences, are nevertheless more or less connected with the truths of the Christian faith.” (HG, 35) This means that HG requires from theologians and (faithful) scientists to take equally seriously the Catholic dogmatic teaching and proved scientific facts. However, when scientific hypothesis, “having some sort of scientific foundation” (35), are in question, especially in cases of possible opposition or conflict between the doctrine revealed by God and scientific conjecture opinions, „then the demand that they (*conjectural opinions*) be recognized can in no way be admitted.” (35) HG thinks of two conjectural opinions in this context: possible evolutionary explanation of human soul (36) and polygenism (37) or historicity of Adam and Eve. On the other hand, when public debates between evolutionists and creationists are in question, the predominant misunderstandings rise around the question about micro and macroevolution – does evolution scientifically explain all variations of all biological forms of life which descended from a common ancestor, or it explain scientifically only the variations within one population of a species. Said misunderstandings seem inevitable since the Bible says that God created different species *instantaneously, each according to its kind*, while (macro)evolution speaks in favor of slow modification in descendants via mutation and selection to be the source of all biodiversity. Consequently, the question at stake is this: are there species that are a different type with some intrinsic essences or is all this just gradual evolutionary development within which we cannot set clear boundaries between different species.

Now, before I introduce Dennett’s heterophenomenology as the basis for a theological thinking tool, an intuition pump, let me elaborate on the questions helped by this thinking tool in theological deliberation about evolutionary creation. There are three questions that this thinking tool is aimed at: (1) questions about possible evolutionary explanation of human

soul (a self of the human being – consciousness); (2) questions about understanding species and intrinsic essences, and (3) questions about historicity of Adam and Eve. I think that these three questions raise most of the articulated misunderstandings when evolution and creation are concerned. This intuition pump, that will be constructed and presented here, helps us to theologically think about evolutionary creation.

2. Dennett's heterophenomenological world and evolutionary explanation of consciousness

Daniel Dennett is a well-known philosopher, whose work is characterized by precision of thoughts and ideas which he analyzes from evolutionistic perspective and within Darwinian paradigm. He is largely influential but controversial in both philosophy of mind and philosophy of evolution and biology. (Tellez, Urea and Wilson 2019) His philosophy is also characterized by thinking tools, or intuition pumps which represent *just-so-stories* (narratives and thoughts experiments) that he uses as arguments for his philosophical concepts. Here I will present Dennett's heterophenomenological method developed for scientific investigation of human consciousness. This method, that will use later on for articulating my intuition pump, is a thinking tool that helps us theologically think about evolutionary creation.

Dennett aims at making consciousness accessible for scientific research. For this, he needs to develop a method – philosophical method – that can make conscious mental states, in some sense, objective entities which science can later investigate objectively – from third person perspective. Dennett, thus, establishes heterophenomenology (Dennett 1991, 66–100), as opposed to phenomenology, in continuation of scientific methodologies that are standard in psychology and the rest of the social and natural sciences. The method contains, roughly, three steps: (1) recording speech acts made by the subject involved in a heterophenomenological experiment; (2) interpreting the recorded sound from an intentional stance and (3) generating a catalogue of mental states of given subject. These three steps move us, Dennett emphasizes, from “the world

of mere physical sounds – into another: the world of words and meanings, syntax and semantics. This step yields a radical reconstrual of the data, an abstraction from its acoustic and other physical properties to strings of words.” (Dennett 1991, 75) This step of *radical reconstrual* of the data includes three stenographical transcripts (and this step ensures objectivity of the method) that are later raw data for interpretation from an intentional stance. At the end of this process, we get “a catalogue of what must be explained.” (Dennett 2005, 40) Dennett names this catalogue a hetero-phenomenological world of the subject of the experiment. This is a fictional world “populated with all the images, events, sounds, hunches, presentiments, and feelings that the subject (apparently) sincerely believes to exist in his or her (or its) stream of consciousness. Maximally extended, it is neutral portrayal of exactly what is like to be that subject – in the subject’s own terms, given the best interpretation we can muster.” (Dennett 1991, 89) In this fictional world, we can find all fictional objects, all mental states that a subject can consciously experience. A fictional character of this world and all objects in it are just a step of ontological caution, since science should investigate these objects and substantiate them as real (or not) objects, events, or states in the brain.

While we *wait* for science to investigate these so far fictional hetero-phenomenological objects, Dennett articulates his evolutionary explanation of consciousness: the Multiple drafts model. (Dennett 1991, 111–115) Within this model, the subject – the self or the soul – is seen as the Center of Narrative gravity (Dennett 1991, 427), a *virtual machine* composed of memes and installed in the biological brain of higher primates (Dennett 1995, 314), namely, *Homo sapiens* that creates *User-Illusion*. (Dennett 2017, 335–370) It is not my intention here to go into detail and present Dennett’s account on consciousness and subjectivity – I have done that in my doctoral thesis (Petrušić 2021, 159–185) – or to present my critical assessment of his philosophy (Petrušić 2015), but rather to take his hetero-phenomenology as starting point for creating a thinking tool for the theological thinking about evolutionary creation.

What is important here is to notice the fictional character of hetero-phenomenological world that can be seen as a fictional literary work –

a book, if you like. The next important thing is to appreciate the irreplaceable role of the subject as author of the raw data that, at the end of the process, constitutes and creates this book (and this heterophenomenological world) and its content. Eventually, it should be dully perceived that these fictional entities and objects found in the book/world have a *life of its own*, so to speak, but are necessarily dependent on the subject – author of the raw data – as various things can happen to them. (Dennett 1991, 95)

3. Intermediate reconstrual work: exporting and stretching

It is, now, time to get to hard work that will yield the theological thinking tool. This work consists of two actions: exporting valuable ideas and structure (in the mode of *analogy*) from Dennett' heterophenomenology and stretching our theological imagination and conceivability.

Dennett uses the colored phi phenomenon to present how his new method for investigating consciousness and new model of consciousness resolve the questions that this phenomenon raises. (Dennett 1991, 115) In the experiment, the subject needs to describe his conscious experience. At the end of the experiment, the subject reports to see one spot moving back and forth, and changing color at the same time, while there are, in fact, two separate spots of different colors turning on and off in rapid succession. It just seems to the subject that there is movement of this one spot that changes the color. This is the founding brain mechanism used in motion pictures – illusion that there is movement while nothing really moves. This is an important insight, since the subject of the experiment knows that he sees color-changing movement, while the experimenter who sets the experiment on, knows that there is neither movement nor color-changing at all. And seeing this color-changing movement is conscious mental state which we need scientifically explain and *fit*, somehow into subject's brain. The second important insight concerns the subject itself. One of the most important mental objects in the subject's heterophenomenological world and report is the mental representation of the subject itself. (Dennett 1991, 427)

The fictional character of the heterophenomenological world and report implies neutral ontology regarding the content of all objects that can be found in that world and the world itself. Nevertheless, we can still speak about the truth that can be found in that world (Dennett 1991, 79), even though we do not need to commit ourselves to the opinion that that world itself is true (that it corresponds to the real world and the objects in it). Since this fictional world can be seen as a catalogue containing all the objects we need to explain, we can conceive it as a formal set or system operated by its own *fictional* logic and laws. After conducting scientific research, we can make an informed decision about the ontological value of this fictional world and all the objects inside.

At this time, we can export above argued valuable insights from Dennett's philosophy into the theological field to see to which *places* we need to stretch our theological intuitions (imagination and conceivability). We export the structure of heterophenomenology with the subject and experimenter, heterophenomenological report and the world including all objects within that world that live *on its own*. We export the unavoidable role of words (speaking acts) used by the subject to express his mental states (ideas, thoughts and mental models), creating a heterophenomenological report. We, then, export a mental model of the subject himself that needs to be included into the heterophenomenological world, and we export the understanding of this world as a formal set (catalogue) of every object that exists in it. Finally, we export the idea that we need to explain the illusion of color-changing movement, since there is no color-changing movement in the phi experiment.

Since we have exported all this into the field of theology, we can now see which part of our theological imagination needs to be stretched out or inwards. It seems to me that theology can greatly benefit from rethinking and rewriting (Gregersen 2004, 90) philosophical thought experiments and thinking tools. For this purpose, we need to set up a stage, using *analogia* mode, analogical thinking for bringing God as a subject in a heterophenomenological experiment. Christianity thinks of God as the transcendental Creator who is *at the very same time* immanently present in his creation. God creates everything *ex nihilo* and sustains everything

in existence via *creatio continua*. At the same time, we need to have in mind that God is present in various forms in the world and in living beings that can be found in this world He creates. He is present in the creation (“And the Spirit of God moved upon the face of the waters”), He is incarnated Christ. He is present in every human being, via our immortal souls that belongs to Him, and via conscience (CCC 1776). He is present in sacraments of the Catholic Church that is guided by the same Holy Spirit that was *moving upon the waters*. Also, He is the true Author of the Scripture. Where to apply the stretching work? It seems to me that, when we take seriously the dogmatically conceptualized and canonically determined theologies, our theological imagination is already stretched enough. Stretching seems to be in fact a theological recollection of the fundamental truths in Christianity.

4. God as heterophenomenological subject

Christian God is a Trinity – a fundamental union (nature) and one God subsisting in three distinct Persons: the Father, the Son and the Holy Spirit. This means that we need not postulate some additional entity or personality in order to fit heterophenomenological requirements regarding objectivity and division of heterophenomenological labor. We have at display the subject and the experimenter for introducing heterophenomenology into theological Trinitarian discourse. But, since I am not interested here in the Trinitarian theology, I leave this topic for some other paper. Here, I wish to examine what happens when we conduct a heterophenomenological experiment with God the Creator as our heterophenomenological subject. We, thus, need to have in mind all the limitations of this thought experiment (which is still possible by virtue of its *analogical* mode). I will, later, determine the implications of the three questions, articulated earlier, on evolutionary creation.

Our heterophenomenological experiment consists of all three steps I mentioned earlier. Firstly, we have God the Creator as the Subject of this experiment – he speaks and informs us about his conscious mental states, the ideas he had in mind. We record his speaking acts and transcribe them

into a heterophenomenological report from which we construct the heterophenomenological world. We, then, need to investigate this world and all the objects in it, including the one object referred to as God himself, as some sort of mental representation of Himself in His heterophenomenological world. Basically, as the result of our experiment we have one heterophenomenological world, one catalogue containing all the objects we can find in that world that needs to be scientifically explained. Since the case here is a fictional world that we created based on a heterophenomenological report generated by the speech acts of our Subject, we can identify this fictional world to be the world we live in – since both worlds, God’s heterophenomenological world in our experiment and the world we live in, were created by Him in similar (*analogical*) way.

Sciences give us a fairly accurate description and explanation of the world in which we live. On the other hand, the Scripture (faith) does the same job – gives us a fairly accurate description and explanation of the world. There is a well-established and researched metaphor about *Two Books* that refer (describe and explain) to the same world created and sustained by God the Creator. Even Dennett admits that there are two remarkably different perspectives on the world. (Dennett 2013, 70) Practicing science can be seen as (re)thinking God’s thoughts after him, as Kepler once said (Baumgardt 1951, 50), and reading Scripture leads to (faith, which means) personally knowing this Creator of heaven and earth. If we are keen on reaching our final destination, we need to take seriously both books, both perspectives (both wings from *Fides et ratio*), to be able to grasp objective reality in one coherent system: evolutionary creation.

5. Investigating God’s heterophenomenological world

Since we can, now, identify God’s heterophenomenological world with the world we live in, I wish to focus on the few aspects of this world – those aspects mentioned earlier regarding evolutionary creation – which sciences describe and explain as *seemingly* opposed to Scripture (faith). Those aspects are: (1) questions about possible evolutionary explanation of the human soul (a self of the human being – consciousness); (2) questions about

understanding species and intrinsic essences, and (3) questions about the historicity of Adam and Eve. Since (2) and (3) can be conceived as reflecting the question related to changes in the nature (in the context of macroevolution), we can put them together and name them (i) nature-changing movement. The question about a possible evolutionary explanation of the human self can be seen as a question, if (ii) metaphysical naturalism (materialism) is true or false. Here, I will not go into details but rather present a strong case for incompatibility between science and faith, evolution, and creation, that is evident in Dennett's philosophy. This means that, if (i) is confirmed, then macroevolution is true in the domain of non-existing essences (as intrinsic properties), and Adam and Eve are not historical persons. But, if we demonstrate that (i) cannot be confirmed in an objective realm of reality, then macroevolution becomes some a sort of illusion regarding essences, while Adam and Eve can be justified as real historical persons. As is the case in the phi phenomenon, it just seems to subject that there was color-changing movement; here in this heterophenomenological world it would only seem to be nature-changing movement.

For Dennett, evolution which he considers to be a universal acid (Dennett 1995, 61–84) proves the illusory belief that essence, a definitive, timeless, and unchangeable *thing*, exists. This means that the Christian *myth* on creation is also illusory, since it implies that God created distinctive species, each *after their kind*. This can be applied also to the question of whether we can point to the first people, or the first human couple. Within materialistic evolutionary perspective and Darwinian paradigm, we cannot but arbitrarily divide the species (since there are no intrinsic essences) and point to the first couple, which, according to Dennett and others, implies that Adam and Eve (as the first people, the first couple) never really existed. This proves, then, that, as opposed to creation, evolution confirms the existence of the (i) nature-changing movement. There are no intrinsic properties (essences) in the nature which is under constant change – an evolution which is responsible for the natural biodiversity we are investigating through sciences. The latter can be seen as in accordance with a possible prediction from the colored phi phenomenon. In Dennett's heterophenomenology, we know why the subject seems

to see color-changing movement. And in this context, the validation of (i) in Dennett's philosophy of biology and evolution can be seen as a confirmation of prediction that there will be something like (i) in the world. As I will show later, it is hard to – objectively – determine what happens in the heterophenomenological experiment where God the Creator is the subject generating heterophenomenological world. As I mentioned earlier, Dennett also explains the human soul (self, consciousness), in evolutionary and naturalistically defining terms, as opposed to the illusory belief that the soul exists independently from the body as Descartes' *Cogito*. Consequently, we need to conclude that evolution and creation cannot go together, since Dennett confirmed (i) and justified (ii) it to be true. Therefore, the talk about evolutionary creation is neither plausible nor justified, and as such it leaves us with only one choice: we can choose either evolution or creation. Dennett opts for evolution.

To show that this is a false dichotomy and false choice, I introduce a thinking tool that enables us to speak about evolutionary creation. This thinking tool sees God as a subject of the heterophenomenological method. At this point, we need to step back and exit the present heterophenomenological experiment. By doing so, two main implications are raised, the first is that we are putting ourselves in the God-eye view of the experiment, and second is generating possibility that (ii) is not true. Similarly, to Dennett's heterophenomenological experiment, where the subject sees the color-changing movement, while the experimenter knows that no such movement or change takes place, our experiment opens up the possibility that this (i) nature-changing movement, in the heterophenomenological world, is only seemingly happening, which raises the question of objectivity. In Dennett's case, it is easy to determine who is right – the subject or the experimenter. In our experiment, conversely, this is not the case. If we, still, take the God-hypothesis seriously enough and established, that God (Trinity) can, at the same time, be both the Subject and the Experimenter, present in heterophenomenological world He Himself creates, the question is answerable – the objective reality is outside of this heterophenomenological world we live in. This makes a case for further philosophical and theological reflections and scientific

ic investigations on evolutionary creation. If we see science as (re)thinking God's thoughts – and theological traditions see God's ideas as exemplars (essences), according to which all living things were created – then science should, or at least could, in principle, confirm essence in nature. This heterophenomenological experiment provides a promising contextual framework for combining Thomism and theology of creation directed towards evolutionary creation. This possible evolutionary creation theology could, in perspective, combine and explain evolution that does not exclude essences, souls or spiritual reality. This implies that natural, physical sciences explore the world in which the (i) nature-changing movement does take the place, since it is one of the objects we can find in God's heterophenomenological world. If (ii) is not true, we need to proclaim (i) to be a mainly illusory phenomenon – when it comes to objective reality, but also a real object, when this world (sometimes seen as an objective world) is in question. Its nature would resemble color-changing movement in the phi phenomenon. It only seems that there is (i), and sciences – since they are also included in the same world which also comprises (i) describe and explain the mechanisms that seem to determine biodiversity as an objective (extra-worldly) point of view and could communicate this knowledge to the beings in His heterophenomenological world that were made in His image. However, if (ii) is true, it means that (i) really and objectively exist in this world and that we need no other perspective, book or wing. Consequently, the decisive question that can determine the nature of objective reality is the question of whether metaphysical naturalism is true or false. And the question about naturalism is just an implication of the possibility to explain human soul in terms of evolution and naturalism – as *Humani generis* states in number 36.

6. God is immanently present in the world He creates

When we construct the heterophenomenological word from the report generated by a speech act of a heterophenomenological subject, we can understand this world as a catalogue containing all the objects we need to explain it. One of these objects is a mental representation (model) of

the heterophenomenological subject itself. This catalogue can be seen as a formal set of all objects that exist in that world. Now, we can apply, in *analog* way or mode, Gödel's incompleteness theorems to this world, which means, or could mean, that there is at least one object that is part of this formal system (heterophenomenological world, which is as such complete) that is true but unprovable and unexplainable within itself. Therefore, if (ii) is true, then there will always be an object in world – our and Dennett's – that cannot be proven or explained by means of the world itself. If (ii) is true, then this heterophenomenological world is not consistent. But if (ii) is false, this world, which is complete, can be consistent at the same time, and can prove and explain all objects existing in it. If the latter is the case, and I think that human beings (human soul, self, consciousness) constitute an argument that this is the case, then (i) should not be strongly argued either. This, in turn, could mean that there really are essences of beings (objects) that populate this world, and that it is justified to think about Adam and Eve as real, historical persons. And, if this is true, then the Creator Himself should be present in the world He creates – as Christianity holds to be true.

7. Implications on theological thinking about evolutionary creation

We live in a world that seems to be complete and consistent. We can mathematically formalize laws and rules that govern this world, which seems to be logically tuned for rational life forms. In this world, we observe change as a fundamental fact of being (to live is to die). And we explore and investigate this change, the mechanisms that govern and determine this change using our imagination that, over time, creates more accurate and precise tools and aids that help us describe and explain everything we can find in this world.

Using Dennett's heterophenomenology, I tried to present here a probable case, a thinking tool for theological thinking about evolutionary creation. Crucial misunderstandings and conflicts, when it comes to evolution and creation, concern several questions that seem to be exclusive,

leaving us with the necessity to choose. To choose between evolution and science against creation and faith. This thinking tool enables us to see this choice as illusory, as a false choice. It reminds us that Christianity knows transcendent God to be immanently present in the world He creates. This, in turn, means that this world can be complete and consistent, but only if Christianity is true and metaphysical naturalism is false. If naturalism is true, then we could never explain human beings satisfactorily – this, I tried to show by possible application of Gödel’s theorems on the heterophenomenological world as a formal set (catalogue) of all objects contained in it. Contrary, this does not seem to be a problem if naturalism is false and Christianity true. And, and the same time, it requires no negative implications on natural sciences. Science gives us a fairly accurate description and explanation of mechanisms and objects residing in this world. It describes and explains the changes that are happening in our world all the time – science (re)thinks God’s thoughts. On the other hand, faith (Scripture and Church’s teaching) gives us the view from the outside – from an objective standpoint since God is the true Author of Scripture and Creator of the world He redeemed in incarnated Christ. Faith gives us knowledge of the identity of God and the identity of all living things including ourselves. This fact is so simply described in the first pages of the Bible: “And out of the ground the Lord God formed every beast of the field, and every fowl of the air; and brought them unto Adam to see what he would call them: and whatsoever Adam called every living creature, that was the name thereof. And Adam gave names to all cattle, and to the fowl of the air, and to every beast of the field. But for Adam there was not found a help meet for him.” (Gen 2, 19–20)

Conclusion

The above discussed thinking tool, in which we see God as the subject of heterophenomenology, provides an answer to the difficult question of the conceivability of evolutionary creation. However, this is difficult only, or even impossible, if we presume naturalism to be true. Then, we cannot speak about intrinsic properties, essences or hold that Adam and Eve ever

really existed. Conversely, if naturalism is false, the status and nature of science remain intact, but new possibilities surface and, perhaps even, new perspectives and paradigms on evolution and creation, on science and faith – making evolutionary creation plausible.

The presented thinking tool has its implications in other theological domains. It would be interesting to apply heterophenomenology within Trinitarian theology as well as Christology. In combination with recursion and recursive function, heterophenomenology, in my opinion, could refresh the theological view on certain dogmatically informed perspectives. For instance, I mentioned earlier that one of the objects found in the heterophenomenological world would be the subject itself, present in the world he creates. What or who could be that subject if our heterophenomenological subject were God Himself? Christianity has already answered this question: it is Jesus from Nazareth, incarnated Son of God. Incarnated Christ, after His death and Resurrection sent the Holy Spirit to give forth and bring together His Church, a Church in which Christ Himself is present in the sacraments. But I leave these possibly fruitful theological ideas for some future papers and further theological research.

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