

LEVELS OF ANALYSIS IN PHILOSOPHY, RELIGION, AND SCIENCE

by Piotr Bylica

Abstract. This article introduces a model of levels of analysis applied to statements found in philosophical, scientific, and religious discourses in order to facilitate a more accurate description of the relation between science and religion. The empirical levels prove to be the most crucial for the relation between science and religion, because they include statements that are important parts of both scientific and religious discourse, whereas statements from metaphysical levels are only important in terms of religion (and philosophy) and are neutral in relation to particular scientific theories. In particular, the rejection of certain ontological assumptions behind special divine action logically entails the rejection of the literal meaning of empirical statements describing special open expression of supernatural factors in nature. Such a rejection also entails an essential revision of many religious systems of beliefs, including traditional Christian theism.

Keywords: divine action; metaphysics; miracles; philosophy of science; popular religion; religion; science; scientific method; theology and science

The model described in this article is aimed at elucidating problems arising in the discussion regarding the relation between science and religion. Obviously, this model does not represent reality in its full complexity, yet it is designed to facilitate the understanding of different religious and scientific concepts or problems—for example, the relation between the metaphysical statements and the statements accepted in science and religion; the role of the philosophical assumptions in determining the meaning and influencing the acceptance of particular scientific and religious statements and theories; and identification of the differences and similarities between the domains of philosophy, religion, and science, in particular the relation between contemporary science and Christian theism. The model is also assumed to

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enable a critical assessment of different descriptions of the relation between science and religion.

Primarily, the model has been constructed for the analysis of particular claims of theistic naturalism, demarcation between theistic naturalism and classical Christian theism, and analysis of the plausibility of theistic naturalism in general,¹ but it has a more general appeal. It can be used to reveal interesting orderings of descriptive (epistemic) statements found in philosophy, science, and religion as well as the interconnections between them. The main aim of this article is to present the model itself. However, certain problems are analyzed in order to facilitate the general presentation of the model and the ways it operates.

Both the religious and the scientific systems can be viewed from various points of view, emphasizing their different aspects. Classically, religion is described in terms of categories such as doctrine, ethos, worship practice, and institutional aspects. Similarly, to some extent, one can talk about science in terms of scientific theories and laws or scientific confirmation of particular facts, scientific practice (resulting in scientific theories and laws), scientific attitudes toward reality (usually identified with rationalism as opposed to irrationalism), and the institutional aspects of science. One can also choose to focus on analyzing the psychological, sociological, historical, cultural, and other aspects of both science and religion. The described model focuses on only one aspect of the philosophical, religious, and scientific systems; namely, it aims to analyze the descriptive statements on reality found within philosophical, scientific, or religious systems. It is important to emphasize that in this model these statements are interpreted *realistically*: at different levels we find statements or claims on what there is or is not, or on “how things are.”

It is a rather common view that the analysis of various approaches to the relation between science and religion should be based on contemporary scientific concepts developed in particular areas as well as on contemporary theological arguments made in response to problems that occur in these areas. However, the analysis should also take into account various related issues raised within the methodology or philosophy of science. In particular, one should pay attention to the problem of the nature of science and the *criterion of demarcation* as discussed among logical empiricists, as well as to the views on science presented within the so-called historical and socio-historical school of philosophy of science. The list of important authors in these areas includes Rudolf Carnap, Moritz Schlick, Otto Neurath, Hans Reichenbach, Karl Popper, Thomas S. Kuhn, Paul Feyerabend, Imre Lakatos, Joseph Agassi, and Larry Laudan.

There are five main conclusions, important for the analysis of relation between science and religion, one can draw from the discussions held within the modern philosophy of science. 1) There is no strict criterion of demarcation between science and metaphysics nor between science and religion

or pseudoscience; 2) philosophy and metaphysics play an important role in science; 3) all observations are theory-laden; 4) scientific theories can turn out to be incommensurable; and 5) all statements, even those regarded as empirical or observational (so-called “facts”), are of hypothetical character. An important general conclusion connected with all these five points is that all human cognitive activity (including science) starts with various assumptions, influencing the outcome of given activity. It can be said that the proposed model describes different kinds of assumptions (thought of as descriptive statements regarding the reality) adopted in order to produce other statements of epistemic character. The model also shows whether the statements located at different levels influence each other or are mutually independent.

There have been a number of attempts at applying the above conditions to the analysis of religion and the relation between science and religion, most notably by Ian G. Barbour (Barbour 1974, esp. chaps 6–8; 1990, chaps. 2–3; 2000, 24–27), Nancey Murphy (see, e.g., 1987, 1988, 1989, 1993, 1999), and, in Poland, by Kazimierz Jodkowski (2005, 2008, 2009).

The difference between the model presented in this article and the attempts made by Barbour and Murphy is that here the contemporary scientific understanding of nature is not assumed in any way superior to the scientific conceptual systems or other kinds of knowledge in use today or in the past. In other words, the model itself does not indicate whether it is religion that should be reconciled with science or whether it should be the other way round; indeed: it does not prejudge whether the reconciliation itself is something worthwhile. It might nevertheless prove helpful in this kind of stipulations, precisely because it is not skewed towards any of the mentioned positions. In this sense, the model is a tool of meta-analysis. It is assumed that such methodological neutrality is a necessary condition for an appropriate exposition of the relation between statements found within science and those found within religion. In comparison to Jodkowski's proposition, the model allows a more detailed presentation of science and religion and a more detailed analysis of the relations between these two.

Barbour introduces the notion of levels of scientific analysis (see, e.g., 1971, 331–33, 455). However, there is no major overlap between his usage of the term and the scope and application of the model of levels of analysis as presented in this article. Barbour writes about the levels of analysis present within science connected with the levels of organization of the object of scientific inquiry. Mikael Stenmark introduces a multidimensional model describing science and religion. However, the dimensions are related to the four distinguished aspects of science and religion, that is, social (practice), teleological (analyzing goals), epistemological (connected with methodology), and theoretical (embracing beliefs, stories, and theories found in science and religion) (see Stenmark 2004; quoted in Srokosz 2004), whereas the model presented here focuses solely on the *logical*

relation between the descriptive statements in philosophy, religion, and science.

THE DESCRIPTION OF THE MODEL

The assumed empiricist approach can be expressed in the following thesis. In order to gain an appropriate perspective on the relation between science and religion, one needs to categorize various descriptive statements regarding reality found in philosophical, scientific, or religious discourse given their levels of empirical testability. In some sense, this will also divide the statements according to their degree of specificity. The potential role of the statements of a given type in scientific endeavors is also important from the point of view of this categorization.

The model consists of five levels containing five kinds of statements. Two of them, the *level of the deepest metaphysics* and the *level of shallower metaphysics*, count as the highest levels in the structure of the model. Statements found in both levels meet the criteria described by logical empiricists for being metaphysical and play no role in any particular scientific theory. The two lowest levels, the *level of regularity statements* and the *level of observational statements* are empirical in this sense that these meet the criteria of empirical testability (taking into account the objections made in the contemporary philosophy of science to the notion of empirical testability of scientific statements and to the distinction between the observational and theoretical statements). There is also an intermediate level, the *level of ontology on nature*, that contains philosophical assumptions on the ontology of natural world used in particular scientific theories and branches of science, as well as in religious considerations on divine action in nature. These levels and their interrelations are described below in more detail. In order to illustrate how the proposed model operates, a number of example statements belonging to particular levels and mutual relations between these statements are discussed.

Level 1: The level of "the deepest" metaphysics. This level contains metaphysical statements as described by logical empiricists, that is, statements that have no empirical content. These are completely invulnerable to empirical testing and hence considered meaningless from the point of view of the empirical criteria of meaning. Importantly, statements of this kind are also completely neutral in terms of scientific activity but nevertheless constitute substantial parts of philosophical or religious systems describing metaphysical concepts related to being and existence as such. These concepts include God (Absolute, or other similar entity) as the source of existence, the attributes of God, notions of necessary and contingent beings, descriptions of the personal or nonpersonal character of the basis of existence, and so on. Hence, this level includes statements like: "There exists an ultimate and necessary Being," "Every entity and every process

are kept in existence by God,” and so forth. Examples of philosophical nontheistic statements of this kind include “Being is, but nothing is not,” “The Nothing itself nothings,” and “Matter in motion is all that is.”

This level also includes religious statements on so-called general divine action (GDA) as opposed to special divine action (SDA) in the world, for example, the statement that God constantly conserves the world in its existence. Good preliminary definitions of GDA and SDA are given by Nicholas Saunders:

General Divine Action (GDA): Those actions of God that pertain to the whole of creation universally and simultaneously. These include actions such as the initial creation and the maintenance of scientific regularity and the laws of nature by God; Special Divine Action (SDA): Those actions of God that pertain to a particular time and place in creation as distinct from another. This is a broad category and includes the traditional understanding of “miracles,” the notion of particular providence, responses to intercessory prayer, God’s personal actions, and some forms of religious experience. (Saunders 2002, 21)

Saunders also provides a number of valuable critical comments on this and other definitions (esp. in chap. 2). From the point of view of this article, it is significant that his definitions do not take into account an important issue relevant in terms of the theological analysis of supernatural interventions in nature: that traditional Christian theism assumes God is not the only supernatural factor able to interfere with the world.

Level 2: The level of “shallower” metaphysics. The statements from this level are also invulnerable to empirical testing. Similarly to the Level 1 statements, the acceptance of Level 2 statements is independent of empirical experience; hence, these also meet the criteria for being metaphysical statements as presented within logical empiricism. This level contains metaphysical statements of the most general characteristics with regard to empirical reality, dealing with the order of the world; for example, general statements regarding rationality, intelligibility, the deterministic or nondeterministic character of the world, or the character of its nature (dualistic, monistic, or pluralistic). It contains statements explaining the meaning of reality, including value statements and statements analyzing value statements (e.g., affirming or rejecting the realistic interpretation of such statements). This level also includes statements describing relativistic or antirelativistic interpretations of reality, statements used in discussions between nominalism and different forms of realism, realism, idealism, and antirealism (“There exists / does not exist a world beyond our minds”), and so forth. It also contains utterances stating that the world in general is beautiful or formidable, meaningful or pointless, and the like.

The essential difference between Level 1 and Level 2 statements is that even though these are indeed metaphysical, Level 2 statements are also important assumptions behind attitudes toward the world and different kinds

of human activity. In particular, certain Level 2 statements are considered important assumptions behind scientific or, more generally, cognitive human activity. For example, statements on the intelligibility of the world or nature are important general assumption behind any cognitive activity of human beings, including science. An analysis of the problem of the realistic interpretation of axiological statements is related to an axiological evaluation of all human actions. Hence, statements from this level form an important part of any philosophical or religious system. In the case of philosophy, these are still considered part of metaphysics (in the classical sense) or axiology, whereas, in the case of religion, statements from this level also include those describing GDA in the world and those describing the natural and axiological order as having their source in God, the Absolute, or other supreme being (for example, statements on God or God's *Logos* incarnated in the laws of nature and immanently present in the world). Such statements as that the source of existence is also a source of the rational order of the world and its axiological dimension (Heller 1995, 120–21) and that “the rationality of the Creator is reflected in the created world” (Heller 1999, 103; see also Polkinghorne 2006, 177–78; 2007, 94) are examples of religious or philosophical statements describing the relation between Level 1 and Level 2 metaphysical statements.

Level 3: The level of the ontology of nature. This level includes ontological statements regarding the natural world as adopted within given scientific theories, systems of theories, or areas of science. Certain statements from the level of the ontology of nature are integral parts of scientific theories, although they are usually only accepted tacitly; in short, one can refer to these as the ontological assumptions of science. Statements of this kind include “There is no action at a distance between physical objects,” “The process of evolution is undirected and has no purpose,” and “Consciousness can be reduced to the behavior of cells in the brain.” The religious statements belonging to this level include ontological assumptions regarding the natural world behind particular religious accounts of the SDA.

Level 3 contains statements expressing positions in such discussions as those between atomism and hylomorphism, determinism and indeterminism, reductionism and antireductionism, finalism and mechanism, action on distance and immediate action, naturalism and supernaturalism, and interventionism and anti-interventionism. Mentioning supernaturalism or interventionism does not mean that God or some other divine factor is understood as being a part of nature. From the point of view of the level of ontology of nature, an interesting aspect of these positions is that they accept the notion of nature that assumes that particular processes and properties found in nature are the effects of supernatural interventions and not of purely natural factors.

Statements of this kind would be treated by logical empiricists as metaphysical and hence denied any positive role within the sciences. In contrast,

members of the historical school of philosophy of science showed that such statements are indeed a very significant part of science as such. Note that the way in which these influence the creation and evaluation of scientific theories and science in general is still hotly debated by the philosophers of science.

Level 3 statements are not empirical in the sense of being directly testable by observations or facts alone. However, these are accepted or rejected on scientific grounds as integral parts of scientific theories. Such philosophical assumptions are usually not a subject of discussion within science itself but instead are tacitly accepted; the situation might change during a crisis, scientific revolution, or paradigm shifts.

Level 3 philosophical statements describe analysis conducted within the philosophy of nature (contemporary; usually a scientifically informed philosophy of nature). In terms of both religion and philosophy, statements from this level also include those describing aspects of the natural (empirical) world related to divine special action, as well as the nature of the relation between soul and body, the ontological status of free will, or the problem of autonomy of man's actions, and so forth.

In terms of the model presented, the following statements belong to Level 3. According to Nancy Murphy, God determines every quantum event (Murphy 1995, 341–57; see also Saunders 2002, 115; Barbour 2000, 171), whereas according to Robert John Russell, God influences only certain quantum events. His position stresses the anti-reductionist account of reality and the concept of levels of organization. According to Russell (1998, 2001), God also acts at higher levels as a top-down cause, influencing levels lower than God: the universe, human societies, historical events, and humans themselves. A similar view has been adopted by George F. R. Ellis (1995, 2001) and Thomas F. Tracy (1995, 2001; see also Barbour 2000, 171). Arthur Peacocke rejects the notion of God's action on the quantum level and in nonlinear dynamic systems and posits instead that God only uses *top-down causality* to communicate with humanity and world-as-a-whole (1995, 279–87; 2002). In John Polkinghorne's opinion, chaos theory presents a better candidate for "causal joint" of divine action than quantum mechanics, and he writes about God's input of information in complex systems and His influence on nonlinear dynamic processes (1989, esp. chaps. 1–4; 1995, 151–156; see also Saunders 2002, 186–201).

The difference between the level of ontology of nature and the level of "shallower" metaphysics is that the philosophical statements found in Level 3 are used as the assumptions behind particular scientific theories, in particular areas of science or by particular accounts of SDA in nature, whereas statements from Level 2 refer to the world in general, and can be used as assumptions behind science (or cognitive activity) in general. The thesis on general indeterminacy of the world at Level 2 does not log-

ically exclude deterministic interpretations of a particular type of natural processes—say, nonlinear dynamic processes or quantum processes. Usually, of course, if people adopt certain statements from Level 2 that refer to the world in general, then they also apply these to the encountered specific natural processes. However, such *downward extrapolation* assumes a kind of ontological unity of the world. This premise itself belongs to the level of “shallower” metaphysics because it states something about the world as a whole. On the other hand, one can use an ontological statement used as an assumption in a given body of knowledge describing a particular kind of natural processes (Level 3, of ontology of nature) and, in the process of *upward extrapolation*, interpreting it as referring to the world in general (Level 2, of “shallower” metaphysics).

Level 4: The level of regularity statements. This is the empirical level containing general statements from science and religion describing regularities observed in the natural (empirical) world. These statements include general statements forming scientific laws and theories, or, when religious statements are concerned, the general rules governing the actions of the supernatural in the natural (empirical) world. If these statements happen to describe causality in science, they can be interpreted as describing the *if-then-always* relations (see Reichenbach 1951, 6, 158) or, in case of statistical statements, the *if-then-with-a-certain-degree-of-probability* processes and relations. Generalizations found in this level can be thus described as either of the two types of statements, under the condition that these can be used as explanations of particular events occurring in nature or the empirical sphere. In this article, such statements are referred to as *regularity statements*. This level also includes classification statements that refer to objects from the natural or empirical world.

From the inductionistic point of view, Level 4 statements are empirical, because they can be considered generalizations of *observational statements* (see Level 5 statements, described below). Also, falsificationists would consider them empirical, since the statements are tested by observable phenomena or facts. From the point of view of the problem of explanation, these are empirical in the sense in which, by explanation of an observed fact, we understand incorporating that fact in a general law.

While there is most likely no need for justifying the thesis that science includes such regularity statements, the case of religion seems more problematic. Can we talk about regularity statements with regard to the action of the supernatural in the empirical world? Can we find references to rules or unchangeable relations between the natural and supernatural used to explain particular events or specific observational facts from the empirical world in any of the known religious systems?

It is important to emphasize that this level of analysis does not include statements describing the GDA. Such statements can indeed be used as kind of explanation for particular events observed at a particular time and

in a given place, but these have a different status. For example, when answering the question “Why is rain falling at the moment?” one could say that God keeps in existence the rain falling at this particular moment. However, keeping in existence is a metaphysical concept belonging to the level of “the deepest” metaphysics (Level 1). As it refers to GDA, it can be applied to any process or fact in the world. When we ask why it is raining instead of, say, snowing, the *explanans* contains the same GDA statement describing God as keeping every process in existence or God’s *Logos* as immanently present in nature. In this approach, the same statement from the level of “deepest” metaphysics can be applied to any observational data; in fact, such a statement is even consistent with two mutually exclusive observational statements. That is why from the point of view of empirical criteria of meaning, statements from Level 1 or Level 2 (of “shallower” metaphysics) have no empirical content, and consequently were considered of no cognitive value by the logical empiricists.

World religions abound with descriptions of regularities related to various rules or regularly occurring relations between the natural and supernatural. In case of such statements, there is an assumed relation to empirical data, which can be used to support or reject them. This is contrary to metaphysical Level 1 or Level 2 statements. For example, when Mamas, the priests of Colombia’s Kogi tribe, perform rituals to ensure the rainfall, they assume that gods will send the rain and that they will do it in accordance with the specific rules as established by the Mother Goddess and observed by all the minor gods or spirits. Mamas kill a cock and send its soul to the gods and perform a host of other actions as a result of their belief that if this was not done the rainy season would not come or would come at an inappropriate moment. We see that there are certain rules or regularity statements describing the order of things in the world, in this case the rules governing the relation between gods and nature. Of course, the Kogi cosmology includes statements of the most general kind, referring to the world in general (Level 1 or 2), yet these do not play a direct role in the described ritual, as the rituals are guided by more specific rules pertaining to the relation between the supernatural and the natural worlds. For this reason, it seems justified to place such rules at empirical Level 4 rather than metaphysical Level 2.

One also finds many similarities to the described situation in the practices of shamans from other parts of the world. In most shamanic systems of belief, the effectiveness of the shaman’s actions depends partially on knowledge of the general structure of the natural world, as well as on knowledge on specific structure of the world of spirits or gods, and knowledge of rules regarding connections between different spirits and their influence on different aspects of natural world or on rules of how to influence the spirits or gods in order to obtain desired effects. Certain effects can be observed by the members of the community, including such specific facts as healing a

person, sending rain, or a successful hunting trip. These rules are often very specific and complex, and a novice in shamanic practices must go through a long-term training to master them. The process of learning resembles in some respects the process of education of a scientist. Prospective scientists, similarly to prospective shamans, are tutored and supervised, spending a lot of time internalizing specific rules observed in the field of their choosing. One noticeable difference is that, in the case of shamanic rituals, the shamans claim that certain instructions, provided by spirits or gods, are accessible to them when entering an ecstatic trance.

The rituals of Vedic religion, especially those connected with the text of *Brahmanas*, the commentaries on the *Vedas*, provide another example of the regularity statements. The *Brahmanas* assumed that correctly pronounced mantras will bring about particular effects as a result of Brahman, the power present in every hymn of mantras. Specific rites, including oblations, are designed for specific gods to provide specific effects, such as abundance of children, cattle, health, or wealth. There is an interesting difference between the shaman's and the Brahmin's actions when performing their rituals: whereas shamans believe that an ecstatic trance is necessary to gain access to arcane knowledge and to use it to influence the spirits, Brahmins (at least in the first part of the later Vedic period) did not consider their emotional engagement a necessary condition for the effectiveness of their rituals.

Before moving on to the Judeo-Christian tradition, let us analyze the relation between magic and religion. Among many definitions of such a relation, the one considered classical characterizes magic as assuming the alleged effectiveness of the rites to be connected with impersonal, hidden forces of nature and religion as utilizing the concept of personal entities, like spirits or gods (see, e.g., Frazer [1890] 1996, esp. chap. IV). If we accept this definition, then magic with specific regularity statements does not seem all that different from contemporary science, given that science also refers to impersonal natural laws, forces, and processes in explaining specific natural events or in achieving particular effects in terms of practice or technology. As Frazer puts it:

Its [magical] fundamental conception is identical with that of modern science; underlying the whole system is a faith, implicit but real and firm, in the order and uniformity of nature. The magician does not doubt that the same causes will always produce the same effects, that the performance of the proper ceremony, accompanied by the appropriate spell, will inevitably be attended by the desired result, unless, indeed, his incantations should chance to be thwarted and foiled by the more potent charms of another sorcerer. He supplicates no higher power: he sues the favor of no fickle and wayward being: he abases himself before no awful deity. (Frazer [1890] 1996, 57)

On the other hand, the problem with that definition is that within both religion and magic one often finds no clear conceptual difference between the impersonal forces of nature and the personal spiritual beings governing specific domain of nature; this was admitted by Frazer himself (57, 60–62).

In terms of the similarity of regularity statements in science and religion, this kind of division into personal and impersonal factors is not really essential. What really matters is that in religion, magic, and science, one finds assumptions that can be expressed by statements describing fixed causal or structural relations or a specific order of certain facts (occurrences) observable in the empirical world. (This has been the case with the examples presented above; it will also be evident in the examples coming from the Judeo-Christian tradition presented below).

The fact that science is assumed to refer only to causal or structural relations within nature, whereas many religious systems assume the existence of a kind of supernatural structural (hierarchical) or causal order and special causal relations between the natural and supernatural, is yet another only seemingly important difference between the scientific and religious statements. This is not important from the point of view of the model, since the criteria for statements to be included in the level of regularity statements (Level 4) do not take into account the character of the reality to which these statements refer. What matters is that both science and many religions explicitly or implicitly contain statements asserting the existence of a kind of an order that is causally connected to observable occurrences. In science, this order is identified with the order of laws of nature, while in religions it can be a particular order in the area of the supernatural.

It is true that one is often unable to make any predictions relating to the future course of the actions of humans as personal beings. Hence it might be argued that there is no analogy between the regularity statements found in science and those found in religion, given that the former exclusively describe laws, forces, and processes of an impersonal character. For that reason, the defining characteristics of science are related to its predictive character, which is in turn a necessary condition for its empirical testability. Spirits and gods can be capricious and unwilling to surrender to rituals (e.g., Assuras within the Vedic tradition). This can be obviously true (though it is not necessarily true that all magical and religious systems assume that actions of these kinds of beings are always connected with such freedom or arbitrariness), and this possibility for the ineffectiveness of rituals is usually accepted. However, this is not the point. What is important here is the very fact that these religious or magical systems assume that results (effectiveness as well as ineffectiveness) of these rituals are causally connected with the specific order of the spiritual or magical dimension and its causal relation with observable phenomena. In other words, it is important that these systems do assume a kind of regularity in this respect, and it is not important whether this is a regularity of the if-then-always or if-then-probably or of

some other, not formally described, kind. Such systems can incorporate beliefs on how such beings *usually* behave.

Statements describing the relation of gods to different aspects of the natural world and human life found within polytheistic religions are examples of beliefs about the relations between empirical events and the order found in the supernatural sphere. Believers are supposed to direct their prayers to one god or another, depending on the kind of problems they are wishing to solve. Even in a monotheistic religion like Christianity (excluding a large part of Protestantism), one finds a tradition of beliefs in mediation of particular saints that is believed to help solve specific problems, including those involving a specific occurrence; for example, in order to find lost keys one is supposed to pray to Saint Anthony, the patron of lost things, and not to Saint Nicholas, the patron of virgins and unmarried women.

There are two other arguments that can be raised against the thesis that there is a definite difference between scientific and religious regularity statements. The first argument is that certain processes belonging to the domain of legitimate scientific research are characterized by limited predictability, despite being governed by impersonal laws and forces. Examples include nonlinear dynamic processes or processes that occur at the quantum level. (The lack of strict predictability of natural processes described by science is an effect of other kinds of factors than free will of agents, namely complexity of these processes and their extreme sensitivity with regard to the initial conditions or specificity of indeterminacy of quantum phenomena. However, this is not the case here.) The second argument is that there are branches of legitimate scientific, empirical research that include an analysis of behavior of personal entities, that is, humans. Even such sciences contain regularity statements, as witnessed by the laws formulated within psychology, sociology, or economics (notwithstanding the problem of predictability of human actions).

Let us now move to the regularity statements found in the Judeo-Christian version of theism. Recall that Level 4 contains statements describing special supernatural action instead of GDA. Consequently, the considered statements are not descriptions of God's constant immanent presence in laws of nature or constant conserving of the world in existence. The Judeo-Christian tradition contains statements describing the regularities assumed in the SDA in nature. The SDA includes not only actions performed by God but also those performed by minor supernatural entities like angels, including the fallen ones.

Surely, the Judeo-Christian version of theism includes accounts of observable facts that can hardly be described by regularity statements, explaining these facts by a reference to a kind of fixed supernatural order or relation between the supernatural and the natural world. In such cases, it is assumed that the only accessible explanation is of the kind "it seems like it must have been God's will" in a situation where one does not really know

why a certain event occurred. Such explanations can also be described by the metaphysical Level 1 and Level 2 statements. In such cases, these statements often refer to problems such as why God created the world at all, or why God allows for suffering in the world. However, at the empirical level these statements are connected with an event that occurred when some other event was expected, and can refer (for example) to unforeseen suffering of a certain individual in a specific situation. Such unexpected events can be contrasted with situations where one can formulate statements within a given religious system explaining why a particular event took place. These are called *religious regularity statements* and belong to Level 4.

Let us now consider examples coming from traditional Christian theism. In the Old Testament, one finds many regularity statements in which God is making promises for humankind or for the chosen nation or even for a particular individual. Some of these statements can be thought of as constituting a system of rewards and punishments. In Deuteronomy, we read:

Therefore know that the Lord your God, He is God, the faithful God who keeps covenant and mercy for a thousand generations with those who love Him and keep His commandments; and He repays those who hate Him to their face, to destroy them. He will not be slack with him who hates Him; He will repay him to his face. (. . .) You shall be blessed above all peoples; there shall not be a male or female barren among you or among your livestock. And the Lord will take away from you all sickness, and will afflict you with none of the terrible diseases of Egypt which you have known, but will lay them on all those who hate you. (Deuteronomy 7:14–15, 28 NKJV)²

Here, God calls himself a “faithful God,” additionally stressing the regularity of these statements. What is important from the point of view of division of statements in the model is that the faithfulness of God and the obedience of Israel result in specific events that would not take place if Israel did not keep the commandments.

The situation of Israel will indeed be very different in case of its disobedience:

But if you do not obey Me (. . .) I will even appoint terror over you, wasting disease and fever which shall consume the eyes and cause sorrow of heart. And you shall sow your seed in vain, for your enemies shall eat it. I will set My face against you, and you shall be defeated by your enemies. (. . .) I will lay your cities waste and bring your sanctuaries to desolation, and I will not smell the fragrance of your sweet aromas. I will bring the land to desolation, and your enemies who dwell in it shall be astonished at it. I will scatter you among the nations and draw out a sword after you; your land shall be desolate and your cities waste. (Leviticus 26:14, 16–17, 31–33, NKJV)

The relation between God and the world described in the above quotations is different than the relation that can be described by the statements

on the level of deepest metaphysics (Level 1). The dependence on God is expressed by Level 4 statements describing rules governing relations with God and a specific part of the creation, in this case the chosen nation. Moreover, such observable effects were to be experienced at a specific date and in a specific place and differ depending on which principles were satisfied. Hence, the dependence on God's will expressed by statements at this level varies from the cases described by Level 1 or Level 2 statements, where it can be interpreted as the dependence of the existence of the world in general or the fact that God determines the general order of the created world, respectively.

In this context, it is also important to consider examples of regularity statements that refer to accounts of a kind of spectacular, open action of supernatural factors in nature. God's (supernatural) actions in the world can be divided according to number of criteria; for example, such actions can be divided into hidden and open. Arthur Peacocke is one of the authors to have assumed this division. According to him, "basic and specifically Christian affirmation is rooted in history. It claims that, in a particular time and place in history, the God who had all along been immanent implicitly in the whole temporal creative process then expressed himself personally in and through a particular man, Jesus of Nazareth" (Peacocke 1971, 157). Peacocke states that the appearance of Jesus of Nazareth on Earth was the kind of God's action that can be described as open, when previous to that God's actions in the world were only implicit or hidden.

From the point of view of this article, it is enough to notice that particular interpretations of God's hidden action can usually be described as referring to the idea of God's general action. The hidden acts of God are described by metaphysical Level 1 and Level 2 statements as well as in some interpretations of the SDA (the level of ontology of nature, Level 3); namely, those describing God as using those aspects (or parts) of nature, allowing God, given the assumed indeterministic or complex character of such aspects, to act in the world without violating the laws of nature and thus remain objectively (scientifically) unrecognizable. In such contexts, the idea of intervention in explaining how God influences the history of the universe and humankind, on both society and individual levels, is usually avoided.

For the purpose of this exposition, it is helpful to introduce the notion of *special expression of supernatural in the empirical world* (from the point of view of a given religious system), which is related to the notion of God's open action in nature and which can be defined as the kind of specific (as opposed to general) involvement of supernatural factors in nature in which every competent follower of a particular religious system recognizes an observable event as an effect of special supernatural factors or as an effect that would not have occurred if special conditions defined within this religious system were not fulfilled. Such supernatural factors can produce

either effects consistent with the regular natural order or effects that are surprising and astonishing, which (it can be assumed within a particular system of beliefs) nature itself is not able to produce. The latter are usually referred to as miracles. In this article, these will be called *open supernatural interventions* if the alleged factors are assumed to be personal beings (like God or angels), or *special expression of supernatural sphere in nature* if the context of the particular event does not determine or does not emphasize the personal character of that factor.

The recognition that observable phenomena are the effect of the intervention is always relative, and depends on the assumed system of beliefs as expressed by Level 4 statements as well as on a number of higher level assumptions. The proposed model also supports the realization that the idea of intervention is not mutually exclusive with ideas describing God's action on a quantum level, in nonlinear dynamic processes, or in the notion of top-down causality as explanations of the ways in which God influences particular events in the world. The idea of supernatural intervention is consistent with all these concepts; God (or some other supernatural factor) can openly act in the world using different aspects of ontological characteristics of nature (as described by Level 3 statements). In other words, in order for a given action of God to be described as an intervention it is not important whether the laws of nature are violated; rather, what is important is whether the effects of this action are recognizable (in the sense mentioned above). The essence of intervention lies in its open character and not in the way in which it takes place.

The notion of "the God of the gaps" is strongly connected with the problem of supernatural interventions. However, in the context of religious regularity statements, not all explanations referring to supernatural intervention should be considered recourse to the God-of-the-gaps strategy, but rather only those explanations that lack regularity statements describing the divine action in the world in their *explanans*. If one directly refers only to Level 1–3 statements and omits the above type of statements, then this person can be said to make use of the God-of-the-gaps strategy. This is so because in such cases one deals with lack of knowledge (religious beliefs) regarding particular rules governing the relations between the supernatural and natural spheres. Science also knows a similar strategy. A normal situation in science is that, at a particular time and for particular problems, there are no regularity statements that can be included in an *explanans* for particular facts in the natural world. It is important to notice that this involves issues of empirical, rather than metaphysical, character. A strategy that can be described as *nature-in-the-gaps* is utilized when it is posited, in the name of science, that there exists a purely naturalistic exhaustive explanation of a particular problem, or that such an explanation will surely be obtained in the future. Similar to the God-of-the-gaps strategy, one then makes use of statements that can be classified as belonging to the higher

levels of analysis. For example, one finds this strategy used in searching for purely naturalistic explanations of such issues as the origin of life, the nature and origin of the human mind, morality and reason. In these cases, this strategy is motivated by belief that the ontology of nature is of a kind in which all these phenomena are effects of purely natural factors.

Let us now consider examples of religious regularity statements also connected, at least to some extent, to the notion of open special expression of the supernatural in the natural. What follows are quotations from the New Testament containing regularity statements referring to the power of faith. Some of these statements describe direct accounts of special expression of the supernatural sphere in the empirical one: "Ask, and it will be given to you; seek, and you will find; knock, and it will be opened to you. For everyone who asks receives, and he who seeks finds, and to him who knocks it will be opened" (Matthew 7:7–8); "Have faith in God. . . whoever . . . does not doubt in his heart, but believes that those things he says will be done, he will have whatever he says. Therefore I say to you, whatever things you ask when you pray, believe that you receive them, and you will have them" (Mark 11:22–24); "And when Peter had come down out of the boat, he walked on the water to go to Jesus. But when he saw that the wind was boisterous, he was afraid; and beginning to sink he cried out, saying, 'Lord, save me!' And immediately Jesus stretched out His hand and caught him, and said to him, 'O you of little faith, why did you doubt?'" (Matthew 14:29–31); "Did I not say to you that if you would believe you would see the glory of God?' Then they took away the stone from the place where the dead man was lying. And Jesus lifted up His eyes and said, 'Father, I thank You that You have heard Me. And I know that You always hear Me.' . . . He cried with a loud voice, 'Lazarus, come forth!' And he who had died came out bound hand and foot with graveclothes, and his face was wrapped with a cloth;" (John 11:40–43); "He could do no mighty work there, except that He laid His hands on a few sick people and healed them. And He marveled because of their unbelief" (Mark 6:5–6). These quotations contain regularity statements describing the relation between faith and particular effects.

The fact that, without assuming the existence of a regularity statement, it would have been hard to meaningfully interpret various actions and their effectiveness is an important argument supporting the thesis that not only science but also various religious systems contain (if only implicitly) regularity statements. For example, when in Acts we read "they brought the sick out into the streets . . . , that at least the shadow of Peter passing by might fall on some of them. Also a multitude gathered from the surrounding cities to Jerusalem, bringing sick people" (Acts 5:15–16), it is clear that people would not bring the sick into the streets if they did not hold certain beliefs which can be considered to be the regularity statements describing the existence of some kind of relation between the saints and the healing power.

The same can be said of other accounts presented in the New Testament describing those who looked to Jesus for—miraculous—healing.

Moreover, when the existence of regularity statements is not assumed, God's actions might seem inconsistent. As Polkinghorne puts it. "if God is consistent then he must act in the same way in the same circumstances" (Polkinghorne 1989, 52). For example, without assuming regularity statements, the turning of water into wine at Cana in Galilee "seems an over-reaction to a mild social problem arising from inadequate prior provision" (Polkinghorne 1989, 52). The concept of religious regularity statements found at Level 4 is not identical to Polkinghorne's concept of a regime (a notion adopted from physics) as used in explaining the divine action in nature. His concept seems to have an empirical as well as a metaphysical dimension, while regularity statements belong to the empirical part of the model presented here. However, the idea of religious regularity statements is strongly influenced by Polkinghorne's considerations.

Level 5: The level of observational statements. This is the *empirical level* containing observational statements describing specific events and properties of the natural world, or a state of affairs one observes in the so-called "empirical sphere." This level includes descriptions that at a particular place and time an event X occurred or that event X had such and such properties. These can either be empirical or observational statements in the strict sense. This does not mean, however, that the statements are observational in the sense a logical empiricist would have used, or that these form an indisputable, infallible empirical basis of knowledge. The statements describe certain empirical facts or observations; however, since all observations are theory-laden, all Level 5 statements are only hypothetical. Nor does this mean that the division into Level 4 and Level 5 is not valid, because the criterion for this division is not the (non-)observability but the general vs. particular character of the statements. Hence, this article, when mentioning observational statements, does not assume the division between observational sentences (protocol sentences, judgments of perception, etc.), expressed in theoretically neutral language, and theoretical sentences as understood within logical empiricism. Rather, these observational statements should be considered similar to the basic statements in the Popperian sense (see Popper 2000, 12) and without references to a perception statement or a theoretically neutral language. In this sense, the observational statements are both empirical and specific statements.

Asserting the truth or falsity of such statements requires not only normal perceptual apparatus but also involves an acceptance of particular scientific, philosophical, or religious concepts as described by statements found on the level of ontology of nature (Level 3) or on the level of regularity statements (Level 4). In other words, as observations are always interpreted within a certain theoretical framework (Level 4) or with certain

ontological assumptions regarding nature (Level 3), the facts can also be said to contain a theoretical or philosophical component in terms of their construction, expressed in the observational Level 5 statements. Hence, statements from Levels 3 and 4 influence the meaning of sentences found at Level 5.

Examples of statements from Level 5 include “On 29 July 2014, the sun in Jerusalem rises at 05:53,” “The tyrannosaur fossils were found in the layer dated at 65 million years,” “The waters parted and the Israelites walked on dry ground with the walls of water to their right and to their left,” “Jesus turned water into wine at a wedding in Cana of Galilee,” “Ann is possessed by a demon,” “Ann is psychotic, having dissociative disorder,” and the like. A further, more detailed analysis will show how the model of levels of analysis helps to emphasize the dependence of the acceptance and meaning of such observational statements with regard to the previously accepted theoretical and philosophical assumptions regarding nature and the divine action in it.

The statement describing sunrise can have a different meaning depending on whether one accepts the geocentric or the heliocentric model of the solar system (Level 2). In the first case, the term “sunrise” denotes a literally understood movement of the sun, whereas in the second case it is understood in a non-literal sense, given that proponents of the heliocentric model reject the literal meaning. The term “sun” itself can be a reference to different kinds of objects (Level 4) including a planet, a star, or a god. Rules governing its movement can be understood in mechanistic and deterministic ways, consistently with the interpretation of such concepts as expressed by Level 3 statements and their applications as described by Level 4 statements. On the other hand, the movement of the sun can be associated with the notion of actions on the side of personal divine beings like angels or gods. In this case, it would also include statements from Level 4 (e.g., “The movement of the sphere of the Sun is ruled by angel named Uriel”) and Level 3 (e.g., “The movement of the planet is determined by personal spiritual beings”).

With respect to the relation between the specific statement describing the sunrise as happening at a particular date and time and the Level 2 statements, the former can be interpreted as denoting a fact related to a general order of the cosmos and can be thought of as the way in which the beauty of the universe or rationality of the creator are expressed. Level 1 statements do not influence the scientific interpretation of the statement describing the sunrise.

Let us turn now to the statement on the dinosaur fossils. The acceptance and meaning of this statement depends on prior acceptance of particular statements from Level 4, including particular elements of the theory of evolution, concepts of specific laws and theories regarding fossilization

and laws of chemistry and physics regarding the rules of dating, particular classification of extinct species, and so forth. Level 3 statements, important from this point of view, describe philosophical assumptions regarding the uniformity of natural physical and chemical processes on Earth (that are very important for the application of rules of physics and chemistry in the dating of the fossil); concepts of the random, undirected, or non-teleological character of the process of biological evolution (important for the acceptance of particular parts of the theory of evolution); and so forth.

Like all Level 5 statements, this one has no strict connection with the acceptance of particular metaphysical Level 2 or Level 1 statements. However, people can justly accept a statement describing the undirectedness of the evolutionary process in biology (Level 3) when they previously accepted a statement on the purposeless and undirected character of the evolution of the world in general (Level 2). Similarly, if people accept the metaphysical thesis on the uniformity and constant character of the laws of nature in general (Level 2), they can also accept the thesis on the constant tempo of the radioactive decay. On the other hand, from the purely logical point of view, one might accept the thesis on the undirected character of the process of biological evolution but reject the metaphysical Level 2 statement that the world in general evolves without any purpose, or without any involvement of any kind of divine factor. From the logical point of view, one might accept the thesis on the constant ratio of radioactive decay on Earth, without accepting the metaphysical assumption on the uniformity and constant character of the laws of nature in general (Level 2). For that reason, there is no logical inconsistency between the evolutionary Level 5–3 statements and the religious statements describing the GDA. The statements that (a) God keeps every natural process in existence (Level 1), including the process of evolution, (b) God's *Logos* is immanently present in the world or is incarnated in the laws of nature (Level 2), and all processes in the world are governed by uniform, constant, and intelligible laws (Level 2) are all logically neutral with regard to the statements on randomness of the mutations or on the undirected character of natural selection (Level 3) and to all statements from the lower levels of analysis. Theses (a) and (b) and the mentioned neutrality constitute an essence of theistic evolutionism (see Bylica and Sagan 2008, 633–36).

However, acceptance of the concept of GDA, as stating that (in the metaphysical sense) God somehow provides a meaning for the world or influences the direction of evolution of the world (e.g., by setting the conditions at the beginning of the universe) can influence the way in which one understands the process of biological evolution. This understanding can be different, depending on the interpretations of the theory of evolution (Level 4) with its ontological assumptions (Level 3) on randomness, purposelessness, and lack of directionality (of course it may refer to the relation between scientific metaphysical statements in

general). These different understandings include the following: (1) the truths of science are separate and distinct from, not inconsistent with, the truths of metaphysics; (2) metaphysical analysis (Level 2 and 1) shows the dimensions of reality that are inaccessible for scientific analysis (Levels 5–3); (3) randomness is only apparent, and scientific theories are not true in the strict (classical) sense (the theories can be interpreted as plainly false or as illusions or one can reject their realist interpretation and opt for the instrumentalist or antirealist approach); and (4) the metaphysical layer is the only one containing true statements or deserving to be interpreted realistically (denoting what really exists). Other options, as well as combinations of these options, are also possible.

The statements on the parting of the Red Sea and turning water into wine, taken in their literal sense, are the accounts of special expressions of the supernatural sphere in the empirical one. The events described by these statements can be explained by Level 4 regularity statements. In the first case, it can include the statement describing the promise given to the Israelites by God that He will set them free from Egypt and will lead them to the “land flowing with milk and honey,” a statement that God acts directly in nature to save or help the chosen nation. This “Exodus event” is one of many described in the Hebrew Bible that can be explained using these regularity statements (valuable descriptions of examples of other ways to explain the biblical account can be found in Harris [2007]).

A regularity statement describing the event in Cana could for example take the following form. Jesus is in a special relation with God the Father; the Father always listens to Jesus; when a person having an appropriate relation with God asks Him for something, God can influence the occurrence of observable effects in nature, even effects that nature itself is unable to produce. Such regularity statements are important, since they let us understand why and how the occurrence of such events is possible.

All these statements, including the literally interpreted Level 5 statements describing the Exodus and the turning of water into wine, as well as the proposed Level 4 regularity statements, can only be accepted after the prior acceptance of certain Level 3 philosophical assumptions describing the possibility of supernatural interventions in nature. In other words, this requires an acceptance of Level 3 assumptions describing a relation between nature and God (or the supernatural sphere in general) that allows for God’s special open action in the natural world. If one does not accept such philosophical and religious Level 3 statements, then one also rejects the respective Level 4 statements as well as such observational statements as the one describing the parting of the Red Sea and the turning of water into wine in Cana in their literal sense. If a particular set of regularity statements is accepted as explaining the aforementioned events, it is erroneous to refer to the statements explaining the special open supernatural action as an

example of the God-of-the-gaps strategy. If there are regularity statements, then there is no gap.

The pair of sentences “Ann is possessed by a demon” and “Ann is psychotic, having dissociative disorder” manifest an interesting situation, in that accepting one of these (observational) statements depends on the acceptance of specific regularity statements (Level 4), including those forming parts of certain scientific theories (for example, related to neurology), as well as those religious regularity statements that describe the rules according to which demons can possess somebody’s soul. However, the philosophical choice involved at even an earlier stage seems to be of primary importance here. The choice between the statement on demonic possession and that on dissociative disorder is conditioned by the prior acceptance or rejection of Level 3 philosophical assumptions describing the possibility of a special open action of supernatural factors in nature. In this case, this can include statements on malevolent open action in the world by fallen angels or on the ontological status of the human soul or the soul/mind–body relation (together with the statements on the meaning of the term “soul” itself). If one rejects the Level 3 interventionist concepts, it means that one accepts only the reference to the theories of bio-psycho-sociological factors (Level 4), and hence treats the sentence describing the demonic possession as false in the literal sense. For example, consider an atheist psychiatrist, who directs a patient with problems that psychiatry is unable to resolve to see an exorcist. Moreover, the psychiatrist believes that the patient’s problems do have an essentially naturalistic explanation, albeit one not known to psychiatry at the moment, and that the exorcist can draw on some unknown natural forces that might help cure the disease. Such an attitude can be considered a prime example of the nature-in-the-gaps strategy.

For all the above, it is unimportant whether one accepts or rejects the statements describing the general intelligibility of the world (Level 2), God’s immanent presence in the laws of nature, or His sustaining the world in existence (Level 1). In the same way, the statements describing the suffering of individuals are not in conflict with the metaphysical layer of the thesis on the ultimate goodness of the source of existence. However, within the theological framework, there is a place for indicating connections between the metaphysical analysis (Levels 1 and 2) of the origin and the nature of evil and the analysis of how evil is expressed in the empirical world (the lower levels of analysis), including such clear expressions as demonic possession. However, a relative independence of metaphysical and empirical levels allows one to accept, without falling into logical inconsistency, the metaphysical thesis on the existence and role of evil in the world in general, at the same time it allows one to reject the thesis that evil expresses itself openly in the empirical world in the form of a personal demonic being. In the same way, one can accept Level 5 statements describing the suffering of particular individuals related to death or illness (even the suffering

interpreted as caused by demonic beings acting openly), and at the same time accept metaphysical statements on the ultimate goodness of creation.

CONCLUSIONS

The model of levels of analysis described in this article allows the presentation of descriptive statements belonging to both religious and scientific systems in one unified framework. The model presents an ordering of scientific and religious statements that aids in identification of relations between statements within the two domains as well as the analysis of the relations between science and religion. In particular, it demonstrates the empirical neutrality of statements from the highest metaphysical levels of analysis. It should also be stressed that the model shows the dependence of statements at the lowest empirical levels of analysis (Levels 5 and 4) on the acceptance of particular statements from the ontological level (Level 3).

The proposed model enables the identification of the difference in meaning of terms and concepts when used at different levels. This in turn helps to identify the essence of certain ways of reconciling religion and science. The concept of God's action in the world understood as His immanent presence in laws of nature and in sustaining every natural process in its existence (Levels 1 and 2) is not, in fact, in conflict with any scientific account of particular events occurring in the natural world. This is because such concepts have no empirical content. There is no evidence that could be used either to confirm or refute it. The term "God's action" can acquire different meanings; in one interpretation God is assumed to sustain the world in existence (Level 1), whereas in the other the emphasis is on His interventionist acts (Levels 3–5). What is important in terms of an adequate representation of the relation between science and religion is that the statements from the lower levels (Levels 3–5) are important parts of both scientific and religious conceptual systems.

With regard to the problem of interventions, the analysis performed using the model suggests that the essence of supernatural intervention, in the context of science and religion, lies in the empirical character of action of supernatural factors rather than in the ontological status of the laws of nature. The discussion on the ontological status of the laws of nature or laws of science belongs to the metaphysical level of analysis (Level 2) and hence does not directly influence the empirical analysis concerning acceptance or rejection of statements describing supernatural factors as being openly expressed in nature (Levels 3–5).

In order to appropriately conceptualize the relation between science and religion one has to take into account the important role played by the Level 3 ontological assumptions behind both the scientific and religious accounts of the empirical world. Accepting a set of ontological premises means the acceptance of particular statements referring to the specific events

occurring in the natural world, especially the statements interpreting the events as the outcome of a SDA.

The lowest three levels are the most crucial in terms of relation between science and religion, as they contain statements forming important parts of both domains. Statements from the highest metaphysical levels are not important for the acceptance of scientific statements from Levels 4–5. Instead, these form important parts of religious systems of beliefs, yet the special character of the metaphysical layer of meaning for the statements from these higher levels means that these are logically neutral with regard to scientific statements from the lower levels. The thesis that the world is rational or intelligible is the most important statement from the point of view of science found at Level 2. However, it important to science in general, not a specific assumption of one particular theory that can be replaced with another, alternative, assumption in a different theory. On the other hand, one can still accept the metaphysical thesis that the world in general is chaotic and irrational and that only a part of it is intelligible and ruled by laws described by science.

In contrast, the Level 3 ontological assumptions are integral to scientific explanations. Some of these assumptions are strongly connected with problems of relation between science and religion. Such statements describe the possibility or impossibility of special open supernatural action in nature or identify the meaning and type of the relation between mind, soul, and body. At this level, many religious systems of belief, including traditional Judeo-Christian theism, accept assumptions that are inconsistent with the naturalistic assumptions found in science. The rejection of these ontological assumptions logically entails the rejection of the literal meaning of Level 4 and Level 5 empirical statements describing special open expression of supernatural factors in nature. The model of levels of analysis enables one to realize that this rejection entails an essential, rather than a superficial, revision of many religious belief systems, including the picture of the world as presented in traditional Christian theism.

NOTES

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1. The articles dealing with such issues are now being prepared under the working titles of “Theistic Naturalism on General Divine Action in the Perspective of the Model of Levels of Analysis” and “Theistic Naturalism on Special Supernatural Action in Nature in the Perspective of the Model of Levels of Analysis.” These articles are also parts of the mentioned project.

2. All biblical quotations come from the New King James Version.

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