

PIOTR BYLICA

NATURALISTIC THEISM ON SPECIAL DIVINE ACTION WITHIN THE FRAMEWORK OF THE MODEL OF THE LEVELS OF ANALYSIS

Abstract. The model of the levels of analysis (MLA) is used to present a form of naturalistic theism where certain statements on special divine action (SDA) in nature are accepted. The SDA statements found within naturalistic theism 'hide' God's action in certain aspects of nature or actions beyond the reach of scientific endeavors in order to avoid *interventionism*. From the perspective of the MLA, the essence of intervention is its empirical recognizability, rather than a particular causal joint or the violation of the laws of nature. Rejection of interventions in the above sense means substantial reinterpretation of Christian theism.

Keywords: divine action, theism, naturalism, levels of analysis, Christianity

1. Introduction. 2. The empirical character of divine action viewed within the MLA as essential for traditional Christian theism. 3. Assumptions shared by strong and weak naturalistic theism. 4. SDA statements and naturalistic theism. 5. *Intervention* and the *God of the gaps* strategy as viewed within the MLA. 6. Conclusions.

1. INTRODUCTION

The model of the levels of analysis (MLA) is presented in a number of publications together with the description of the statements accepted by naturalistic theism and traditional Christian theism.¹

1 See P. Bylica, *Levels of analysis in philosophy, religion, and science*, Zygon: Journal of Religion and Science 50(2015)2, 304–328; Idem, *Zarys modelu poziomów analizy w badaniach relacji nauki i religii*, Filozoficzne Aspekty Genezy 9(2012), 221–253; Idem, *Główne założenia i problemy teizmu naturalistycznego w sprawie relacji sfery nadprzyrodzonej i świata przyrodniczego*, in: *Sozologia systemowa: Biosfera. Człowiek i jego środowisko w aspekcie przyrodniczym, filozoficznym i teologicznym*, vol. IV, ed. W. Dyk, Wydawnictwo Naukowe Uniwersytetu Szczecińskiego, Szczecin 2014, 55–95; Idem, *Mark Harris*

Naturalistic theism (NT) is a position according to which the divine action is considered as exclusively unempirical and noninterventionist. The labels: naturalistic theism and theistic naturalism have been present in the research literature on the relations between science and philosophy for many years now.² The article *Naturalistic theism on general divine action*³ introduces the division of naturalistic theism into strong and weak, with the former being analyzed in more depth. Strong naturalistic theism is described as a position that tries

as a *Naturalistic Theist: The Perspective of the Model of Levels of Analysis*, *Filozoficzne Aspekty Genezy – Philosophical Aspects of Origin* 12(2015), 7–39.; Idem, *Naturalistic theism on general divine action within the framework of the levels of analysis model*, *Studia Philosophiae Christianae* 52(2016)4, 7–37.

- 2 “The processes revealed by the sciences are in themselves God acting as Creator, and God is not to be found as some kind of additional influence or factor added on to the processes of the world God is creating. This perspective can properly be called ‘theistic naturalism’” (A.R. Peacocke, *Paths from Science Toward God. The End of All Our Exploring*, OneWorld, Oxford 2001, 138; see also *ibid.*, xvii, 51, 135, 146, 159, 161, 163, 165). “The power of scientific naturalism in the academic world is so intimidating [...] that hardly anyone is willing to challenge it. Theologians (or theistic scientists) survive in academia not by challenging naturalism with a rival interpretation of reality but by trying to find a place for theology within the picture of reality defined by scientific naturalists. They write books with titles like *Religion in an Age of Science* (Ian Barbour), *Theology for a Scientific Age* (Arthur Peacocke) and *Theology in the Age of Scientific Reasoning* (Nancey Murphy). I call this genre ‘theistic naturalism,’ because to accommodate successfully the theists must accept not just the particular conclusions that scientists have reached but also the naturalistic methodology that generated those conclusions” (Ph.E. Johnson, *Reason in the Balance. The Case Against Naturalism in Science, Law & Education*, InterVarsity Press, Downers Grove 1995, 97). See also D.R. Griffin, *Religion and Scientific Naturalism. Overcoming the Conflicts*, State University of New York Press, New York 2000, xvi, 15, 17, 40, 89, 247, 258, 290–293, 307; H. Van Till, *Are Bacterial Flagella Intelligently Designed? Reflection on the Rhetoric of the Modern ID Movement*, *Science and Christian Belief* 15(2003)2, 121; C.C. Knight, *Divine Action: A Neo-Byzantine Model*, *International Journal for Philosophy of Religion* 58(2005), 184–188, 191, 194, 195; Idem, *Theistic Naturalism and Special Divine Providence*, *Zygon* 44(2009)3, 533–542; See also P. Bylica *Współczesny teizm naturalistyczny z punktu widzenia modelu poziomów analizy. Problem działania sfery nadnaturalnej w przyrodzie*, Biblioteka Filozoficznych Aspektów Genezy, t. 7, Instytut Filozofii Uniwersytetu Zielonogórskiego, Zielona Góra 2016, 8.

- 3 See P. Bylica, *Naturalistic theism on general divine action*, *op. cit.*

to avoid conflict with science by limiting itself to those statements on divine action (belonging to the metaphysical levels of the MLA) that describe general divine action (GDA) in nature. In the present article, the MLA is used to introduce the weak form of naturalistic theism that does accept certain statements on special divine action in nature. Also, a comparison is made between such statements and SDA statements found in traditional Christian theism. In this way, the weak form of naturalistic theism is presented and analyzed as a way of reconciling Christian theism with contemporary scientific naturalism. The notions of *intervention* and *God of the gaps* are crucial to such an endeavor; hence an in-depth analysis of them is also provided. Both the strong and the weak version of naturalistic theism reject interventionism and the *God-of-the-gaps* strategy. The aim of the article is to examine – using the MLA – whether the approach to SDA found in weak naturalistic theism is consistent with such a rejection. Additionally, a comparison is made between the treatment of SDA in weak naturalistic theism and in traditional Christian theism.

The article is structured as follows. First, a brief presentation of the MLA and of traditional Christian theism from the point of view of the model is given. Empirical statements on divine action are posited to be the crucial elements in traditional Christian theism, differentiating it from beliefs in either a deistic or a materialistic character of empirical reality, as well as from other religious views. Next, the assumptions common to both strong and weak naturalistic theism are presented: the acceptance of the scientific worldview, the role of methodological naturalism in science, the division of epistemic competence between science and theology, and the rejection of *interventionism* and the *God of the gaps*. Next, the positions of some proponents of naturalistic theism on SDA are presented as consistent with the assumptions described in the previous section. The positions described refer to aspects of nature that allow describing God's actions as always "hidden", i.e. not empirically recognizable using the

methods employed by contemporary scientific research. Here, the MLA is used to evaluate the degree to which such statements can be considered as belonging to the empirical levels of analysis. This is followed by a more thorough analysis of the notions of *intervention* and *God of the gaps*. Three kinds of concepts of intervention are presented. It is posited that the empirical character of intervention is its essential element, which is related to the requirement of the existence of gaps in the view of the empirical realm endorsed by scientific naturalism. Reference to contemporary philosophy of science about the role of philosophical assumptions and the relation between theory and observation is made to highlight an important role played by statements on the ontology of nature and religious regularity statements in identifying interventions. Such a reference also allows the introduction of a criterion for differentiating between the use of the God-of-the-gaps strategy and an empirically-justified inference of SDA.

The above considerations enable one to conclude that the strategy of “hiding” God’s supernatural actions is not consistent with traditional Christian theism. This is so because traditional Christian theism accepts a set of statements expressing the open and empirically recognizable character of such actions. From the point of view of the MLA, the essence of intervention lies in its open character and not in the way (or the ‘causal join’) in which it takes place. Rejecting interventions understood in such a way means rejecting a crucial element of Christian theism. The God-of-the-gaps strategy, understood as a reference to God’s intervention in cases where we lack knowledge of the causes of a particular phenomenon, is not required by *any* reference to God in explaining particular phenomena in the empirical realm, but only when reference to God does not involve religious regularity statements describing the relation between the natural and the supernatural realms. Hence, the term “God of the gaps” better fits the strategy of naturalistic theism aimed at ‘hiding’

God's action in the gaps postulated in the ontology of nature to make the action unfathomable by means of empirical inquiries.

2. THE EMPIRICAL CHARACTER OF DIVINE ACTION VIEWED WITHIN THE MLA AS ESSENTIAL FOR TRADITIONAL CHRISTIAN THEISM

The MLA distinguishes five kinds of statements. The highest level contains the most general statements that lack empirical content. The lowest level contains specific 'observational' (yet theory-laden) statements describing particular occurrences and objects found in the empirical world at a certain time and location. The ordering of these levels reflects the logical priority of statements from the higher levels with respect to statements from the lower levels. It also reflects the progressive order of importance of statements from particular levels in terms of scientific practice. The MLA takes an empiricist approach with regard to the theory of meaning and the problem of the testability of statements. However, it endorses a deductive (rather than inductive) perspective on the justification of statements, i.e. inductivism about the origin of knowledge is rejected.

This model is useful to compare scientific statements with philosophical and religious statements. It helps to identify the role of philosophical statements in science as well as the role of scientific statements as a source of philosophical or metaphysical concepts. The MLA orders all descriptive statements in terms of their increasing empirical content and decreasing general character. It distinguishes two kinds of non-empirical, metaphysical statements (Levels 1–2), philosophical statements describing the ontology of nature used in specific empirical sciences (Level 3), statements expressing regularities found in the empirical world (Level 4), and statements that describe observations of particular occurrences in the empirical world (Level 5).

Table 1 presents a general description of the levels of analysis as defined within the MLA and Table 2 presents a general overview of traditional Christian theism within the MLA framework.

Level 1 – “the deepest” metaphysics	Metaphysical statements on being as such; most general statements on the ultimate basis of existence.
Level 2 – “shallower” metaphysics	Most general statements describing empirical reality, including statements of axiological character. These include statements on the rationality and cognizability of the empirical world, on its beauty, its meaningfulness or its teleological character, on monistic, dualistic or pluralistic ontology of the world as a whole, on the openness/closeness of nature to supernatural action.
Level 3 – ontology of nature	Ontological statements regarding particular domains of the natural world as adopted (usually tacitly) within given scientific theories, systems of theories or areas of science as well as in religious ideas on special divine action in nature.
Level 4 – regularity statements	General statements forming scientific laws and theories, including classification statements, or – in the case of religion – statements expressing the general rules governing the actions of the supernatural in the empirical world.
Level 5 – “observational” statements	Particular statements describing occurrences and properties of the natural world, or a state of affairs one observes in the so-called ‘empirical realm at a particular time and place.

Table 1. Summary of the MLA. ⁴

Level 1 – “the deepest” metaphysics	Statements describing God as a necessary being, the Creator, the ontological basis of the existence of the world, who constantly and simultaneously sustains the world (including nature) in its existence.
Level 2 – “shallow” metaphysics	Statements describing the world as rationally, axiologically and morally ordered, having its roots in God. Statements describing the world, life, humankind as effects of God’s intentional and general action. Statements describing nature as open to external interventions.

⁴ See *ibid.*

Level 3 – ontology of nature	Statements describing particular (physical, biological, psychological, sociological, etc.) domains of the empirical realm as open to special divine action. Statements describing certain types of events or properties of objects and processes as effects of a special action of God or other non-natural beings. Such action can be either hidden or open, (i.e. it can be recognized as such).
Level 4 – regularity statements	Statements describing rules and regularities of special divine action in the natural world: the role of prayer, the so-called holy pictures or sacred places, the etiology of demonic possessions, etc.
Level 5 – “observational” statements	Statements describing particular events interpreted as supernatural interventions. Such statements describe events and properties of the natural world observed in the so-called ‘empirical realm’ at a particular time and place.

Table 2. General overview of traditional Christian theism from the perspective of the MLA.⁵

According to Reaburne S. Heimbeck there are two kinds of statements describing God and God’s action in nature, which he labels G_1 and G_2 statements. Within the MLA framework, the latter kind of statements are considered metaphysical and non-empirical as they describe God himself and the general relations between God and the world.⁶ The former kind includes empirical statements found on the lowest level of analysis, as G_1 -statements have empirical entailments and incompatibles and have only empirical evidence as their primary and ultimate data. According to Heimbeck, a prime example of a G_1 -statement “is the statement made by ‘God raised Jesus of Nazareth from the dead near Jerusalem at t_2 ’. This G_1 -statement entails

⁵ See *ibid.*

⁶ See R.S. Heimbeck, *Theology and Meaning. A Critique of Metatheological Scepticism*, George Allen and Unwin London 1969, 166–172. See also P. Bylica, *Naturalistic theism on general divine action*, *op. cit.*

(*prima facie*) the statements made by ‘Jesus of Nazareth was dead near Jerusalem at t_1 ’ (when t_1 is a time just prior to t_2) and ‘Jesus of Nazareth was alive and in the vicinity of Jerusalem at t_3 ’ (where t_3 is a time just subsequent to t_2) (...). The statement expressed by ‘Jesus of Nazareth was not dead near Jerusalem at t_1 ’ and ‘Jesus of Nazareth was not alive in the vicinity of Jerusalem at t_3 ’ are (*prima facie*) incompatibles of the statement made by ‘God raised Jesus of Nazareth from the dead near Jerusalem at t_2 ’.⁷ The statement about the resurrection of Jesus puts God in contact with a historic, empirical event: “Since the person [Jesus – PB], time, place, and event belong to empirical order, the G_1 -statement has an empirical anchorage which provides possibility of empirical checkability.”⁸ From the point of view of the MLA the statement describing the resurrection of Jesus should be categorized as a Level 5 statement.

The statement describing the resurrection of Christ is one of the most important Level 5 statements in the traditional Christian system of beliefs. However, traditional theism contains a large number of Level 5 statements describing the effects of the special supernatural action.⁹ One can also find such statements in the official teachings of all the Christian churches. In what follows, two examples of such statements are presented. The doctrine of the Anglican Church, expressed in The Thirty-Nine Articles of Religion, describes Christ’s ascension as also having an empirical aspect that could be observed in the physical world: “Christ did truly rise again from death, and took again his body, with flesh, bones, and all things appertaining to the perfection of Man’s nature; wherewith he ascended into Heaven, and

7 R.S. Heimbeck, *Theology and Meaning. A Critique of Metatheological Scepticism*, George Allen and Unwin London 1969, 172. See also P. Bylica, *Naturalistic theism on general divine action*, op. cit.

8 R.S. Heimbeck, *Theology and Meaning*, op. cit., 173.

9 See P. Bylica, *Naturalistic theism on general divine action*, op. cit.

there sitteth, until he return to judge all Men at the last day.”¹⁰ An official dogmatic decree of the Roman Catholic Church describes an important role played by miracles, understood as events occurring in the empirical realm and crucial for confirming the validity of the Christian set of beliefs. In the Dogmatic Constitution on the Catholic Faith issued by the First Vatican Council one reads: “If any one shall say that miracles are impossible, and therefore that all the accounts regarding them, even those contained in Holy Scripture, are to be dismissed as fabulous or mythical; or that miracles can never be known with certainty, and that the divine origin of Christianity can not be proved by them: let him be anathema.”¹¹

It is important to notice that traditional Christian theism also describes non-natural beings other than God as acting in the empirical realm, some of whom in an evil way. Both the Old and the New Testament describe the important role of angels, who are presented as acting in the empirical world with their action as having empirically recognizable effects.

The acceptance of this kind of empirical statements distinguishes the theistic picture of the empirical realm from the materialistic or deistic ones. The acceptance of particular statements of this kind also distinguishes one religion from another. Mighty acts of God in the history of Israel are often evoked in the Hebrew Bible as evidence of a special relation between Yahweh and the chosen nation: “And when the Israelites saw the mighty hand of the Lord displayed against the Egyptians, the people feared the Lord and put their trust in him and in Moses his servant” (Ex: 14, 31 NIV). Similarly, the mission of Jesus was supposed to be confirmed by a number of empirically recognizable events, including his miracles. It is quite a common opinion in

10 *The 39 Articles of Religion*, <http://www.victorianweb.org/religion/39articles.html> [accessed 30 October 2015].

11 *Decrees of the First Vatican Council, Dogmatic Constitution on the Catholic Faith*, <http://www.papalencyclicals.net/Councils/ecum20.htm#3>. On faith [accessed 30 October 2015].

Christianity that, apart from the evidence that Jesus descended from king David, “[t]wo other factors qualified Jesus to be the Messiah: the voice of God in the Jordan, ‘you are my beloved Son’ (...), and his miracles. (...) His miracles provided confirmation that the long-awaited day of the Lord had come with the activities of the divinely commissioned Messiah.”¹² Other religions accept different empirical statements describing divine action that make them unique among the rest. Hence, the empirical character of certain statements (Level 5) describing God’s action in the empirical realm is an important element of traditional Christian theism.¹³

3. ASSUMPTIONS SHARED BY STRONG AND WEAK NATURALISTIC THEISM

Naturalistic theism attempts to reconcile Christian theism with the contemporary scientific worldview. In order to be consistent with contemporary science, naturalistic theism accepts the naturalistic assumptions behind scientific endeavors, which are consistent with the postulates of methodological naturalism. According to Michał Heller, “In science one is never allowed to resign from explaining »material phenomena« by reference to other »material phenomena«.”¹⁴ Heller openly expresses the need to reconcile the Christian doctrine with the naturalistic assumptions of science: “In what way theology ought to respond to the new philosophical assumption of science [i.e. naturalism – PB]. Surely, in many ways, but one of the most

12 P. Barnett, *Messiah: Jesus – the evidence of history*, Inter-Varsity, Nottingham 2009, 84, 92.

13 See K. Jodkowski, *NOMA, cudy i filtr eksplanacyjny*, *Roczniki Filozoficzne* 53(2005)2, 91; Idem, *Epistemiczne układy odniesienia i „warunek Jodkowskiego”*, in: *Filozoficzne i naukowo-przyrodnicze elementy obrazu świata 7*, eds. A. Łatawiec, G. Bugajak, Wydawnictwo Uniwersytetu Kardynała Stefana Wyszyńskiego, Warszawa 2008, 115. See also P. Bylica, *Naturalistic theism on general divine action*, op. cit.

14 M. Heller, *Sens życia i sens Wszechświata. Studia z teologii współczesnej*, Wydawnictwo Biblos, Tarnów 2002, 44–45.

important is the necessity of reinterpreting some religious truths, to make them consistent with the contemporary scientific picture of the world.”¹⁵ According to Nicholas Saunders, it is necessary “to ensure that contemporary understanding of God has relevance to modern thought, and our current scientific worldview (...). [T]heological doctrine must be evaluated against wider scientific considerations for the simple reason that we want to get our understanding of God and creation as correct and as true to reality as possible.”¹⁶ Hence, as a result of the assumption that it is science that provides a picture of the world “as correct and as true to reality as possible”, certain theological stipulations end up being influenced by science.

This state of affairs is an effect of accepting the assumption that science has a special epistemic authority over the natural (or empirical) realm. Naturalistic theism assumes that science is competent to explain all events occurring in it. This is expressed in Heller’s division between the epistemic authority of science and that of theology. He distinguishes between the spurious and the genuine gaps in the description of reality: “Spurious gaps are temporary holes in our knowledge usually referring to an incomplete scientific theory or hypothesis and to restricted domain of phenomena.”¹⁷ According to Heller, all gaps are spurious except for those that science – due to its very nature – is unable to fill in. From the perspective of the MLA, these gaps are filled in by the metaphysical Level 1 and Level 2 statements. According to naturalistic theism, only science can be a competent source of Level 4 and 5 empirical statements.

15 Ibid., 30.

16 N. Saunders, *Divine Action and Modern Science*, Cambridge University Press, New York 2002, xi.

17 M. Heller, *Chaos, Probability, and the Comprehensibility of the World*, in: *Chaos and Complexity. Scientific Perspectives on Divine Action*, eds. R.J. Russell, N.C. Murphy, A.R. Peacocke, Vatican Observatory Publications, Center for Theology and the Natural Sciences, Vatican City State – Berkeley 1995, 120. See also P. Bylica, *Mark Harris as a naturalistic theist*, op. cit., 15–16; P. Bylica, *Naturalistic theism on general divine action*, op. cit.

The anti-interventionist assumptions of science – described by Level 2 statements – are also accepted in naturalistic theism.

Since scientific explanations refer only to natural objects and processes, the effect of this way of reconciling religion with science is the rejection of the interventionist notion of divine action in nature and the interpretation of certain descriptions of God's action in the empirical realm as examples of the God-of-the-gaps strategy. This approach is presented by Howard Van Till in his idea of naturalistic theism, which in contrast to supernaturalistic theism rejects "coercive" supernatural intervention.¹⁸ Barbour combined interventionism and the God-of-the-gaps approach: "past history has taught the danger of bringing God in a stopgap where the scientific explanation is incomplete."¹⁹ John C. Polkinghorne expresses a popular idea that it is the advancement of scientific knowledge that demands abandoning all attempts at referring to God in explaining empirical problems that fall within the purview of science: "The one God who is well and truly dead is the *God of the gaps*. His job was to pop up as the explanation, so-called, of what otherwise could not be understood. The advance of scientific knowledge has given him a fading quality (...). Not that there are not many things which we do not understand. (...) However, it no longer seems plausible that there are scientific no-go areas, in which questions can be posed scientifically to which only a *God of the gaps* could provide an answer. Scientific questions demand scientific answers and they seem to get them."²⁰

Hence, the main assumptions of naturalistic theism are as follows: 1) the acceptance of the contemporary scientific worldview;

18 See H. Van Till, *Are Bacterial Flagella Intelligently Designed?*, op. cit., 121 See also P. Bylica, *Naturalistic theism on general divine action*, op. cit.

19 I.G. Barbour, *Science and Religion Today*, in: *Science and Religion. New Perspectives on the Dialogue*, ed. I.G. Barbour, Harper & Row, New York – Evanstone – London 1968, 5–6. See also P. Bylica, *Naturalistic theism on general divine action*, op. cit.

20 J.C. Polkinghorne, *One World. The Interaction of Science and Theology*, Templeton Foundation Press, Philadelphia – London 2007, 72.

- 2) the acceptance of the role of methodological naturalism in science;
- 3) a division of epistemic competence between science and theology according to which science (with its naturalistic assumptions) is the only proper source of knowledge about events occurring in the empirical realm (Levels 4–5) and theology is only competent to address issues of metaphysical character (Levels 1–2); and, consequently,
- 4) the rejection of *interventionism* and the God-of-the-gaps strategy.

4. SDA STATEMENTS AND NATURALISTIC THEISM

In order to avoid falling into deism or materialism and yet remain consistent with contemporary science, some naturalistic theists posit the existence of special action of God in nature that is consistent with the ontology of nature assumed in scientific theories and at the same time is not empirically recognizable (as all empirical assumptions pertain to science, and science is silent about God). Such naturalistic theists use specific notions, expressed by Level 3 statements, to explain how God can influence particular events in the world. The causal joint of God's action in the world is always related to a specific situation in which God can act without violating the laws of nature, although such actions are not recognized by scientific procedures. This strategy is not treated by naturalistic theists as an example of the *God of the gaps* strategy. According to Polkinghorne, "science had not established the causal closure of the world, as if what happens could be fully understood simply in physicalist terms. Thus there is no more reason to doubt the coherence of belief in divine providential agency (...). [A]ppeal to intrinsic unpredictability, of whatever form, is not the course to a 'God of the gaps' kind of argument of an unacceptable kind, but it is a recognition of the intrinsic incompleteness

of a scientific causal account that is based solely on the traditional physical idea of the exchange of energy between constituents.”²¹

William Pollard was one of the first to describe the idea that God providentially controls the world through quantum indeterminacies. According to this interpretation, no force would be required for God to actualize any of the possible alternative quantum states. Such divine action would not be scientifically detectable and would violate no natural laws. He posited that by collapsing the wave function, God is able to affect every natural process, including events in evolution and human history.²² According to Nancey Murphy, God determines every quantum event and is a participant in every macro-level event: “The theological goal is to find a *modus operandi* for God at the macro level (...)]. The ontological reductionist thesis seems undeniable – macroscopic objects are *composed of* entities of atomic and subatomic physics. (...) Therefore, God’s capacity to act at the macro-level must include the ability to act upon the most basic constituents. (...) Over the long history of the tradition, I believe, the majority view has been that God acts in all things at all times, not just on rare occasions. (...) So our theological intuitions urge upon us the view that, in *some way*, God must be participant in every (macro-level) event. (...) God’s participation in each event is *by means of* His governance of the quantum events that *constitute* the each macro-level event.”²³ According to Robert John Russell, God influences only certain quantum events. Unlike Murphy, Russell stresses the importance of an anti-reductionist account of reality. He exploits the concept of levels of organization. According to Russell, God also acts

21 J.C. Polkinghorne, *Science and Providence: God’s Interaction with the World*, Templeton Foundation Press, Philadelphia – London 2005, xii–xiii.

22 W. Pollard, *Chance and Providence. God’s Action in a World Governed by Scientific Laws*, Charles Scribner’s Sons, New York 1958. See also I.G. Barbour, *When science meets religion*, Harper San Francisco, San Francisco 2000, 86–87.

23 N.C. Murphy, *Divine action in the natural order: Buridan’s Ass and Schrödinger’s Cat*, in: *Chaos and Complexity*, op. cit., 342–343.

at higher levels. Like a top-down cause, God influences lower levels: the Universe, human societies, historical events and humans themselves.²⁴ A similar view has been adopted by George F. R. Ellis and Thomas F. Tracy. According to Tracy, “God might cause the existence of entities (or of the linked systems of indeterminate proto-entities that quantum mechanics suggests to us) but leave the successive states of the entity (or system) up to probabilistically structured chance, so that not even God determines the next state of affairs. God would both be the absolute ontological ground of every event and bring into being a world that includes within its structure an important place for indeterministic chance. God could then choose whether or not to determine these finite indeterminacies in light of their impact on the course of events in the world. In this way, God’s creative work would include a continuous involvement in history, and the open potentialities of nature would emerge and be elaborated within the ongoing providential care of God.”²⁵ Ellis distinguishes two “different acts of downward causation (...). Firstly, there is generic downward causation: this influences a whole range of events through alteration of operational conditions in a region (...). [There is also – PB] specific or directed downward causation, which influences very specific events as occurs, for example, in the human body or machinery and is essential to their functioning.”²⁶ According to Arthur R. Peacocke God only uses the *top-down causality* to communicate with humanity

24 See R.J. Russell, Special Providence and genetic mutation: A new defense of theistic evolution, in: *Molecular Biology: Scientific Perspectives on Divine Action*, eds. R.J. Russell, W.R. Stoeger, F. Ayala, Vatican Observatory and CTNS, Rome – Berkeley 1998, 191–223; Idem, *Divine Action and Quantum Mechanics*, in: *Quantum Mechanics: Scientific Perspectives on Divine Action*, eds. R.J. Russell, Ph. Clayton, K. Wegter-McNelly, J.C. Polkinghorne, Vatican Observatory and CTNS, Vatican City State – Berkeley 2001, 293–328.

25 T.F. Tracy, *Particular Providence and the God of the Gap*, in *Chaos and Complexity*, op. cit., 321–322.

26 G. Ellis, *Ordinary and Extraordinary Divine Action: The Nexus of Interaction*, in: *Chaos and Complexity*, op. cit., 387–388. See also I.G. Barbour, *When science meets religion*, op. cit., 171.

and the world-as-a-whole: “since God is properly regarded by most theists as in some sense “personal,” this “flow of information” may be more properly envisaged as a means of communication by God of divine purposes and intentions when it is directed towards that level in the hierarchy of complexity which is uniquely capable of perceiving it, namely, humanity.”²⁷ John Polkinghorne finds chaos theory to be a better candidate than quantum mechanics for the ‘causal joint’ of divine action and suggests an account of the way in which God inputs information into complex systems and nonlinear dynamic processes.²⁸ In terms of the MLA, all these propositions express statements that belong to Level 3.

It is important to notice that naturalistic theists are usually silent about the special actions in nature performed by supernatural beings other than God. Peacocke is an exception, as he discusses the issue of demonic possessions. However, in line with the assumptions presented in the previous section he dismisses a supernaturalistic interpretation of this phenomena in the name of science: “What scientists rightly object to, it seems to me, is that acceptance of the occult, demonological, »supernaturalist« mythology would imply not just a lack of understanding of a particular phenomenon, the mental-brain processes, but also the falsity of the entire scientific understanding of the world so painstakingly built up and so intellectually comprehensive and inspiring in its scope and depth.”²⁹ Traditional Christian ontology includes God’s creation understood as “all things

27 A.R. Peacocke, *God's Interaction with the World: The Implications of Deterministic “Chaos” and of Interconnected and Interdependent Complexity*, in: *Chaos and Complexity*, op. cit., 285; see also 279–287.

28 See J.C. Polkinghorne, *The metaphysics of divine action*, in: *Chaos and Complexity*, op. cit., 151–156; Idem, *Science and Creation: The Search for Understanding*, New Science Library, Shambala – Boston 1988, esp. chapt. 1–4. See also N. Saunders, *Divine Action and Modern Science*, op. cit., 186–201.

29 A.R. Peacocke, *Creation and the World of Science. The Bampton Lectures*, Clarendon Press, Oxford 1979, 123.

visible and invisible”. Hence, it is called a »supernaturalist« mythology since it includes spiritual beings like (fallen) angels

Polkinghorne stands out the most in this respect as he openly states the possibility of the existence of angels in what he calls a ‘noetic world’. Furthermore, he admits the possibility of a scientific (i.e. empirical) investigation of the actions of nonmaterial beings in the empirical realm: “There might be active intelligences in that noetic world, which traditionally we would call angels. There might be powerful symbols, the ‘thrones or dominions or principalities or authorities’ of Pauline thought (...). There might even, I suppose, be other entities which shared man’s ‘amphibious’ complementarity in the world of matter, and so were able to act within that world, but which operated, not within localized bodies, but within whatever flexibility there might be in overall process. (...) Certainly if such influences are at work with consequences in the material world, then they must be open at that level to appropriate scientific investigation.”³⁰ Such statements make Polkinghorne’s account an extreme example of weak naturalistic theism.

Importantly from the point of view of the MLA, what is common to various statements describing the divine action in nature within weak naturalistic theism is that they describe God’s action as taking place in regions of the natural world characterized by high levels of complexity or flexibility, thus making them extremely hard to fathom by means of empirical analysis. In this way, God’s action is ‘hidden’ in the gaps postulated in the ontology of nature (described by Level 3 statements), making it not recognizable by means of empirical inquiries. Therefore, despite describing special divine action such statements cannot be counted as belonging to the empirical levels of analysis. This is a way to characterize the rejection of *interventionism* and the *God of the gaps* strategy. In the following section, these two notions are analyzed more closely in order to evaluate the consistency

30 J.C. Polkinghorne, *Science and Creation*, op. cit., 76.

of the approach of weak naturalistic theism to SDA and to compare it with the approach presented within traditional Christian theism.

5. INTERVENTION AND THE GOD OF THE GAPS STRATEGY AS VIEWED WITHIN THE MLA

In the research literature, the term *intervention* is used to refer to various aspects of God's actions within the empirical world. Such aspects can be categorized into three classes: causal, theological, and epistemic. These ways of categorizing *intervention* are not mutually exclusive and many accounts in fact combine a number of aspects, so that separating the various meanings often requires a more in-depth analysis.

As for its causal dimension, an interventionist action is understood as an action of God that goes against the causal order of nature as described in the sciences, "making difference in the world (...) in a way contrary to those regularities and laws operating within the observed universe, which are explicated by the sciences."³¹ This includes the actions of God resembling natural causes that require matter or energy being added to natural processes. Violations of the laws of nature and God's actions conceived as natural causes (with the addition of matter or energy) are explicitly rejected by naturalistic theism.

Some authors view the notion of God's interventions as related to the theological problem of God's transcendence, immanence and deistic character of His relation to the world. According to these authors, interventionism is connected to a deistic (rather than theistic) understanding of God's relation to the world, as it seems to assume that God is transcendent rather than immanent in the world. From this perspective, the idea of interventions means that

31 A.R. Peacocke, *God's interaction with the world*, op. cit., 286. Here, I am quoting a passage from Peacocke in which he argues for the opposite hypothesis, namely for the noninterventionist notion of God's actions.

God occasionally acts from beyond the world but in general is not constantly present there. In this context, Mark Harris writes about a “deistic talk of »intervention«.”³² He summarizes N.T. Wright’s observation that the influence of deism on modern thought is witnessed by the popularity of the concept that the “world is conceived as self-sufficient system largely closed to divine influence; God is normally absent but might intervene occasionally, in radical discontinuity with the world order.”³³ According to Harris, this kind of understanding of intervention is especially evident in the context of evolution: “In any case, talk of progress or »purpose« in evolution raises theological difficulties of its own, because it implies divine »guidance« behind evolutionary processes, and raises the problems, which flow from deistic talk of divine »intervention«.”³⁴

The epistemic aspect encompasses the reference to the fact that God’s actions in the world are recognizable. Interventions are interpreted as events caused by God that can only be explained by invoking a special action of God. In most cases this means such extraordinary events that are, to recall the already-quoted passage from Peacocke, “contrary to those regularities and laws operating within the observed universe, which are explicated by the sciences”. As this concept assumes the incompleteness of scientific (and hence naturalistic) account of the natural world, it is rejected by naturalistic theism as an instance of the God-of-the-gaps theology. The central core of this theology is precisely the lack of knowledge regarding the laws and processes that lead to the occurrence of particular phenomena in the empirical world. This is also expressed by Polkinghorne in the above quotation on the God of the gaps, whose “job was to pop up as the explanation, so-called, of what otherwise could not be understood”.

32 See M. Harris, *The nature of creation. Examining the Bible and science*, Acumen, Durham 2013, 113, 191.

33 *Ibid.*, 171.

34 *Ibid.*, 151.

I propose to identify intervention with a *special expression of the supernatural in the empirical world*.³⁵ It can be defined as a kind of specific involvement of supernatural factors in nature such that that every competent follower of a particular religious system recognizes an observable event as an effect of the special supernatural factors, or as an effect that would not occur if the special conditions defined within one's religious system were not fulfilled.³⁶ The effects produced can either be consistent with the regular natural order or surprising and astonishing, such that nature itself is not able to produce or they are highly improbable to be produced. The recognition that the

35 See P. Bylica, *Levels of analysis in philosophy, religion, and science*, op. cit., 317.

36 Here, the recognition of an expression of the supernatural in the empirical realm is conditioned by the system of religious and non-religious beliefs accepted within a particular religious community. In some respects, one finds a relatively similar approach to the recognisability of miracles in A. Świeżyński, who proposes the concept of inculturation of miraculous event: "the miracle may be described as the aberration from the laws of natural science, caused by a side factor, which is the action of the supernatural personal cause (...). [T]he miraculous event may be treated as an extraordinary one, only in the relative sense, namely, its extraordinariness has its source not in the fact of violating the order of the objective material world, but in the limitation and imperfection of our knowledge", A. Świeżyński, *Epistemology of miracle. Scientific inexplicability, religious sense and system approach towards the epistemology of miracle*, Wyd. UKSW, Warszawa 2012; 81–82; Idem, *Filozofia cudu. W poszukiwaniu adekwatnej koncepcji zdarzenia cudownego*, Wyd. UKSW, Warszawa 2012, 160. Hence, according to Świeżyński God's action always takes into account the human knowledge and cognitive methodology available at a particular time: "The miracles, which take place within the material world, touch the supernatural reality, but they have to be verified with the use of »earthly methods«, applied by a man. (...) Within the sign and symbolic conception of miracle (...) we may (...) talk about the inculturation of the miraculous event. The agent of this inculturation is God, who gives the people a sign of His presence/a message concerning himself and His action in the event, which they regard as an extraordinary one and which turns out to be impossible to explain by scientific knowledge. (...) miracles (...) are always adjusted to the needs and capabilities of reading them within a given epoch", A. Świeżyński, *Epistemology of miracle*, op. cit., 151–153; Idem, *Filozofia cudu*, op. cit., 305–307. However, this account seems to assume the necessity of constant gaps in human knowledge about nature (as its premise is that God never breaks the laws of nature) for God's miraculous action to be recognizable. Hence, from the point of view of naturalistic theism it leads to the worst of all sorts of the God of the gaps theology.

observed phenomena are the effects of the intervention is always relative and depends on the assumed *system* of beliefs. Here, one finds a parallel between the interplay of observational, theoretical and philosophical statements in science as described by contemporary philosophy of science³⁷, and the interplay of the same kinds of statements in various religions, including Christian theism. The analysis of the role of philosophy (identified with the ontology of nature and located at Level 3) in science is of crucial importance here, as are the arguments showing the theory-ladenness of all observation. The use of the MLA allows one to easily observe that all scientific theories assume some statements about the ontology of nature and that the meaning of the so called observational statements depends on the *system* that contains both the previously accepted theories (Level 4) and the philosophical assumptions on the ontology of nature (Level 3). In religion we can also find such relations between particular kinds of statements. What plays a crucial role in the case of statements describing special divine action are the Level 3 statements concerning the ontology of nature and Level 2 statements describing the openness of nature in terms of the action of the non-natural factors. The religious regularity statements (Level 4) describing the rules of special divine action in nature are also very important to identify this kind of divine action.

It is important to notice that special divine action can be performed in either a hidden or open manner. The former shows no deviation from the ordinary course of nature, whereas the latter can be empirically recognized. It is empirical recognisability that is in our view essential for the notion of intervention. A given statement describing *intervention* understood as an *action* of a supernatural factor would

37 See K. Jodkowski, *NOMA, cudzy i filtr eksplanacyjny*, op. cit., 97–98; Idem, *Epistemiczne układy odniesienia i „warunek Jodkowskiego”*, op. cit., 246–247; Idem, *Nienaukowy fundament nauki*, in: *Granice nauki*, ed. Z. Pietrzak, *Lectiones & Acroases Philosophicae* VI(2013)1, 71–74, 87–92.

then be a statement containing certain empirical entailments and incompatibles. These empirical entailments, i.e. events observed in nature, would then be considered as *interventions* understood as *instances* of this supernatural action. One of the conditions for recognisability is met when it is assumed that the laws governing a particular natural domain are such that nature alone would have been unable to produce a certain effect, or that it is highly improbable for such an effect to occur solely as a result of natural causes. Hence, the laws of nature need not be broken in order for intervention to take place.

An additional condition for the recognisability of intervention is the presence of a religious context expressed by appropriate Level-4 statements that helps to sort highly improbable yet natural events from events in which a special action of a supernatural factor was involved. (This concept of intervention is consistent with the contemporary understanding of miracles as signs accepted by the Roman Catholic Church). Christian theism does include assumptions that can be described as regularity statements referring to a constant or semi-constant relation between the supernatural realm and particular events occurring in the empirical, natural world (beyond the existential dimension of human life). These are statements describing the role of prayer and the so-called holy pictures or sacred places, the intercession of the saints on behalf of men to secure the graces of God (e.g. the healing grace), the etiology of demonic possession, etc. Gospels are full of examples in which it is either tacitly assumed or explicitly stated that obtaining particular graces is an effect of having a prior appropriate relation with God, namely strong faith.³⁸ Apostle James also describes the connection between the effectiveness of prayer and faith and the righteousness of the praying individual: “And the prayer offered in faith will make the sick person well; the Lord will raise them up (...). The prayer of a righteous person is powerful and effective. Elijah was a human being, even as we are. He prayed

³⁸ See P. Bylica, *Naturalistic theism on general divine action*, op. cit.

earnestly that it would not rain, and it did not rain on the land for three and a half years. Again he prayed, and the heavens gave rain, and the earth produced its crops” (Jm: 5, 15–17).

Hence, not all explanations referring to supernatural intervention should be considered instances of the God-of-the-gaps strategy. Rather, only those explanations that lack regularity statements describing the divine action in the world in their *explanans*. One employs the God-of-the-gaps strategy in a religious context only when one uses philosophical statements (Level 1–3) but not empirical statements (Levels 4–5) to explain particular observable phenomena. This is because in such cases one deals with the lack of knowledge (religious beliefs) regarding particular rules governing the relations between the supernatural and natural realms. There are situations, however, where reference to God is in fact unavoidable. There exist a number of observable facts that can hardly be explained by religious regularity statements or by reference to a semi-regular relation between the supernatural and the natural worlds. One would be hard-pressed to point to a L-4 religious regularity statement that helps to explain the creation of the world, life or man, and the same applies to many other situations. On the L-4 empirical level, the answer “This is God’s will” is given when we deal with an unexpected or surprising event, such as suffering that is hard to accept and comprehend, or misfortunes of a good, God-fearing man in a given situation. In such cases the reference to God is very similar to the God-of-the-gaps strategy but, in fact, they do not necessarily deserve the moniker.

A similar situation occurs in the context of science. A normal situation in science is that at a particular time there are no regularity statements that can be included in the *explanans* for particular facts in the natural world. A strategy that can be described as *Nature-in-the-gaps* is used when it is posited – in the name of science – that although there are currently no regularity statements at hand allowing us to explain a certain phenomenon, there surely exists a purely naturalistic and exhaustive explanation of a particular problem or

such an explanation can surely be obtained in the future. Examples include the contemporary scientific approach to the problem of explaining the origins of the Universe, the origin of life on Earth, the emergence of human consciousness or the events considered by the Roman Catholic Church as miraculous healings. Similarly to the God-of-the-gaps strategy above, with no scientific L-4 statements at hand as explanations of such facts one uses statements that can be classified as belonging to the non-empirical levels of analysis. Usually, these are Level 2 statements describing the rational character of reality or expressing the assumption that nature is all that exists and nothing can interfere in it from the outside. These can also be L-3 statements describing the philosophical assumptions concerning physical objects of a given research area (e.g. about the random, indeterministic/deterministic, chaotic or extremely complex character of various processes). The use of such a strategy, resulting from the acceptance of particular philosophical assumptions, is commonplace in science and is not inappropriate: on the contrary, it is a valuable part of scientific inquiry. As a result, science can more effectively focus in dealing with specific empirical problems.³⁹

6. CONCLUSIONS

The MLA facilitates the recognition that reference to a particular causal joint connected with a certain aspect of nature is not essential for establishing the non-empirical character of the statements describing this action. The idea of intervention is not incompatible with descriptions of God's action on a quantum level, in nonlinear dynamic processes or with the notion of top-down causality, as explanations of the ways in which God influences particular events in the world. The idea of a supernatural intervention is consistent with all these concepts: God (or other supernatural factors) can openly

39 See also P. Bylica, *Levels of analysis in philosophy, religion, and science*, op. cit., 323–324.

act in the world using different aspects of the ontology 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 or not; rather, what matters is whether the effects of such an action are recognizable (in the sense mentioned above). The essence of intervention lies in its empirical character and not in the causal joint, where supernatural factors can interfere in nature.⁴⁰

Rejecting interventions in the above sense means rejecting a crucial element of Christian theism, which treats certain statements describing divine action as empirical. Traditional Christian theism accepts specific statements describing the ontology of nature and regularity statements concerning the relation between the natural and the supernatural. Such statements describing the ontology of nature are inconsistent with the naturalistic assumptions of contemporary science. Yet it is the acceptance of such assumptions by naturalistic theism that leads to view divine action as non-empirical. Naturalistic theism attempts to hide God's action in the *gaps of nature* or to place them beyond the limits of scientific discovery (in the realm of the indeterministically interpreted quantum processes, the nonlinear dynamic processes or highly complex systems like the human mind) in order to avoid the use of the notion of *intervention*. Such great efforts are made to preserve its consistency with the scientific, naturalistic picture of the world.

The MLA allows one to clearly see that not all references to a supernatural intervention in explaining particular empirical facts can be justifiably described as instances of the God-of-the-gaps strategy. This strategy should not be used to describe reference to supernatural factors when such descriptions involve the use of relevant religious regular statements on the constant or semi-constant interrelations between the natural and the supernatural. The term "God of the

40 See also *ibid*, 318.

gaps” can be more appropriately used to describe the strategy –utilized by weak naturalistic theism – of ‘hiding’ God’s action in the gaps postulated in the ontology of nature, which aims at rendering this action inaccessible to empirical investigation.

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PIOTR BYLICA

p.bylica@ifil.uz.zgora.pl

University of Zielona Góra, Institute of Philosophy

al. Wojska Polskiego 71A, 65–762 Zielona Góra, Poland

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