



# Does God Think the Same Way We Do? On the Logical Apophatism of Michał Heller

WOJCIECH P. GRYGIEL 

University of Opole, wojciech.grygiel@upjp2.edu.pl

**Abstract:** Apophatic theology is an approach in theology that emphasizes the limitation of human language and concepts in describing the nature of the Divine. Rooted in ancient religious traditions, apophatic theology has gained attention in contemporary discourse for its potential convergence with the scientific method. This paper expands on a novel application of this approach in which the formal methods of science such as logic and mathematics are engaged to inquire into how God thinks and to what degree the modes of human reasoning can be projected on the nature of the Divine mind. This application has been proposed by Michał Heller and is referred to as the *logical apophatism*. In the course of the analysis carried out in this paper more in-depth understanding of the logical apophatism has been obtained by contrasting it with classical approaches to negative theology such as the *Triplex Via* and supplementing with recent advances within the cognitive sciences. It is concluded that Heller's use of the apophatic approach is manifestly non-standard and its novelty consists in the shift of emphasis from the negative character of the language of theology to the logic of the Divine mind and the logic that underpins the workings of the Universe.

**Keywords:** apophatism, anthropomorphism, cognitive science, logic, category theory, theology

Even those who do not affirm the existence of transcendent realities oftentimes appreciate what is metaphorically called *the mind of God*.<sup>1</sup> While we as humans are very much accustomed to the way we think and the way we perceive reality, mightier powers of reasoning than ours are highly valued. In a broad sense, this can be taken as a manifestation of an apophatic approach already in which some of the purely human modes of reasoning are deemed insufficient in accessing the Divine thought. Interestingly enough, a distinct character of the rules of logic appears on the quantum level where generalized quantum logic applies suggesting that otherness of the Divine Mind makes itself known already in the realm of the created order. Michał Heller's fundamental thesis in his apophatic approach to theology states that "in the Judeo-Christian tradition God is the source of the Highest Rationality but this source does not have to be subjected to what we think is or is not rational."<sup>2</sup> This is what Heller calls the principle of the *logical apophatism*.

<sup>1</sup> E.g., Coles, *Hawking and the Mind of God*.

<sup>2</sup> Heller, *Ważniejsze niż Wszeczeńświat*, 52.

The main goal of this study is twofold: (1) to analyze Heller's argumentation in favor of this principle and (2) to demonstrate the non-standard and novel character of Heller's use of the apophatic method. This novelty results from a clear shift of emphasis in this method from the description of the Divine reality by negation to more positive statements on the nature of the Divine mind and the logic inherent in the structure of the Universe. The pursuit of the goal will consist of four steps. Firstly, Heller's discussion of the classical Aristotelian logic will be reviewed with particular emphasis on how this logic ties with ontology thereby giving rise to the *non-contradiction principle*. Secondly, the specificity of paraconsistent logics will be surveyed in order to show the roots of Heller's principle of logical apophatism. Thirdly, a short and informal account of the category theory will be offered in order to sketch the theoretical environment in which the relations between the different kinds of logic find their clear expression. Fourthly, a detailed conceptual analysis of the logical apophatism will be performed by contrasting it with one of the best known classical approaches to negative theology known as the *Triplex Via*. This contrast will reveal the new content that Heller's logical apophatism brings into the apophatic method in theology. On a more general level, this study contributes to the application of formal methods in theology. Such efforts date back to the Middle Ages to the works of Peter Damian and Nicholas of Cusa who fully approved of contradictions (antinomies) in this discourse. The applications of formal methods in the area of the negative theology continue until the present day.<sup>3</sup>

## 1. Aristotle and Non-contradiction

Although Heller introduces the concept of the *logical apophatism* in theology in one of his newer theological works entitled *Ważniejsze niż Wszechświat* (More Important than the Universe),<sup>4</sup> his predilection for apophatic thinking permeates many of his earlier works especially when the concept of mystery enters his discourse.<sup>5</sup> The explicit statement of apophatism is made by Heller in the context of his philosophical inquiry as he takes up the issue of the different logical systems integrated into a coherent whole by one of the most abstract contemporary mathematical theory: the *category theory*. Although brief, the statement quite clearly reveals Heller's unique attitude towards apophatism as indicated above:

<sup>3</sup> Meixner, "Negative Theology," 75–89; Brożek – Olszewski – Hohol, *Logic in Theology*; Urbańczyk, "The Logical Challenge," 149–174; Beall, *The Contradictory Christ*.

<sup>4</sup> Heller, *Ważniejsze niż Wszechświat*, 27–54. The English version of the chapter of this book on the logic of God has been published as: Heller, "The Logic of God," 227–244.

<sup>5</sup> E.g., Heller, *Usprawiedliwienie Wszechświata*, 91–93.

We said that the logic of our reasoning is classical. However, does this concern all possible domains? If some regions of the world (as the example of quantum mechanics teaches) are governed by logic different than classical, should it not be taken into consideration that some fundamental areas of philosophy (let us think about metaphysics or about the fundamental problems of ontology) at least in some of its aspects, reach beyond the possibilities of classical logic? Isn't it naive to maintain that our capabilities of making inferences retain their validity in areas cognitively distant from our experiences? ... In other words, one needs to take into account that in regards to some issues a certain kind of philosophical apophatism would be appropriate. Apophatism, but not resignation from knowledge. Philosophy has a chance of learning something from theology here. Since the beginning the theologians knew that they are helpless in respect to the "logic of God" but they never ceased to ponder what "reaches beyond."<sup>6</sup>

Interestingly enough, Heller places theologians as an example to follow for philosophers but, as it will shortly turn out, it is him who throws a challenge to theologians by proposing a considerable modification to the classical understanding of the apophatic method. Much of the preparatory work for this purpose, however, is accomplished in one of his chief earlier theological works bearing the title *Sens życia i sens Wszechświata* (The Sense of Life and the Sense of the Universe). Motivated by the medieval disputes on the relations between faith and reason, Heller engages into an inquiry in which he attempts to address general conditions under which the human mind can tolerate contradictory beliefs.<sup>7</sup> This task fits very well within his general philosophical pursuit of exploring the limits of rationality exemplified here by the question whether accepting contradictions implies a breach with rationality or there are richer models of rationality that can accommodate contradictions as natural.

In order to show that the second option is the way to go, Heller carries out the analysis of one of the key principles of the classical philosophy, *the principle of non-contradiction* (equivalently called the *principle of contradiction*). Since this principle has its roots in the works of Aristotle, Heller turns to a very detailed account of the Aristotelian thought in this regard presented by famous Polish philosopher and logician, Jan Łukasiewicz (1878–1956). Łukasiewicz singles out three formulations of the principle of non-contradiction given by Aristotle: *ontological*, *logical* and *psychological*. In the ontological formulation it is asserted that "no object can both have and not have the same attribute" and in the logical: "two propositions, one of which attributes to an object precisely the quality which the other denies it, cannot be true at the same time."<sup>8</sup> The psychological bears no significance for this study and will not

<sup>6</sup> Heller, "Teoria kategorii, logika i filozofia," 5–15. A preliminary survey of Heller's philosophical apophatism has been presented in: Grygiel, "Apofatyzm filozoficzny," 227–245.

<sup>7</sup> Heller, *Sens życia i sens Wszechświata*, 96–99.

<sup>8</sup> Łukasiewicz, *O zasadzie sprzeczności*, 149.

be discussed. Following Łukasiewicz's observation that "true judgments, affirmative and negative, correspond to objective facts, that is, to the relations of having and not having a property by an object."<sup>9</sup> Heller concludes that despite of their different contents, the first two formulations are equivalent because one can be always inferred from the other.<sup>10</sup>

In order to substantiate Heller's opinion that "there exists a cult of the principle of non-contradiction in our culture,"<sup>11</sup> it is worthwhile to reach out to an almost contemporary text in metaphysics written from a very classical point of view to which most of the pre-Vatican II ecclesiastical centers of higher education subscribed. In his commentary on this principle, the author of the text, John P. Noonan, asserts:

The principle of contradiction applies to all being, the material and the spiritual. It is the foundation of all being and of all knowledge, self-evident and not requiring proof. In fact, this principle is incapable of proof because it is immediately evident to the mind. It is the foundation of our rejection of the position of the skeptics. If the principle of contradiction were not admitted, it would be impossible to advance one step on the road to knowledge.<sup>12</sup>

A quick glance at this quote reveals that two important points in Noonan's insistence on the fundamental character of the principle of non-contradiction. First of all, he claims the self-evident character of this principle suggesting that it has to be accepted uncritically and does not require a proof. Every science that studies reality must presuppose this principle because its violation would mean an exclusion from existence. Heller calls such a situation the *ontological overflow*.<sup>13</sup> From the purely formal point of view of classical logic, accepting two contradictory statements falls under the regime of the Duns Scotus' law that from contradiction anything follows (*ex contradictione quodlibet*) thereby rendering a given set of beliefs irrational. The indispensability of the principle of non-contradiction manifests itself also in the thought of Gottfried Wilhelm Leibniz for whom the principle of contradiction was an *a priori* truth that can be reduced to identity. Heller indicates that the philosophers and theologians of the in the medieval period as well as Leibniz' successors maintained that in His deductions God uses the two-valued logic which was the only logic at their disposal. Also, Heller points out that for Leibniz this logic acquires a transcendent character for God himself is equated with logic.<sup>14</sup>

<sup>9</sup> Łukasiewicz, *O zasadzie sprzeczności*, 149.

<sup>10</sup> Heller, *Sens życia i sens Wszechświata*, 92.

<sup>11</sup> Heller, *Sens życia i sens Wszechświata*, 91.

<sup>12</sup> Noonan, *General Metaphysics*, 54–55.

<sup>13</sup> Heller, *Ważniejsze niż Wszechświat*, 30.

<sup>14</sup> Heller, *Ważniejsze niż Wszechświat*, 31–32.

Noonan's forceful explanation evidently does not take into account that what appears as self-evident might in fact be an arbitrary assumption as it is the case in the formulation of an axiomatic system. The seemingly self-evident relation of logical necessity between concepts and reality has been challenged by the development of the contemporary science. The outcome of this challenge is best visible in the onset of the hypothetico-deductive method of science in light of which abstract mathematical formalisms of physical theories must withstand the scrutiny of experiment in order to acquire their proper physical meaning. In other words, their correspondence with reality is not given *a priori* but is established in the process of arduous empirical testing. This, in turn, challenges Noonan's second claim that the principle of non-contradiction is "indispensable on the road to knowledge" because treating it in an aprioric manner may effectively obstruct insight into the nature of reality. Of course, one can accept the principle of non-contradiction as a working assumption which, like every other hypothesis, needs to be subjected to the procedure of verification and may be rejected.

## 2. From Contradiction to Paraconsistency

A relaxed attitude towards the principle of non-contradiction is also endorsed by Łukasiewicz because, in his view, this principle cannot be proven and it is valid only as an assumption.<sup>15</sup> Heller supplements this view by indicating that the *Gödel incompleteness* theorems reinforce the non-provability of this principle.<sup>16</sup> In a more general scheme, the logical indispensability of the principle of non-contradiction begun to lose its force with the development of formal logic beginning in the 19<sup>th</sup> century and, in particular, with the shift of how logic is understood: it is not an abstraction from reality but it is a set of axioms equipped with the appropriate inferential rules. In order to acquire a better grasp on the nature of this shift, it is worthwhile to pause at a somewhat similar but more illustrative example of the development in geometry. After all, logic has always been central to geometry as a key tool in proving the geometrical theorems.

Prior to the discovery of the non-Euclidean geometries and the formulation of the Erlangen program by German mathematician Felix Klein, the Euclidean geometry was understood ontologically as the only possible geometry of the Universe much the same way the principle of non-contradiction seemed to underpin the physical reality as a whole. As a result of the program, geometries began to be understood as theories of the invariants of the groups of transformations defined strictly by

<sup>15</sup> Łukasiewicz, *O zasadzie sprzeczności*, 152.

<sup>16</sup> Heller, *Sens życia sens Wszechświata*, 92–94.

the axioms.<sup>17</sup> In particular, the discovery of the non-Euclidean geometries revealed that the fifth postulate of Euclid is an arbitrary assumption and not a self-evident truth pertaining to the structure of the physical reality. Albert Einstein maintained expressly that geometry is an empirical science and this claim played a key role in the formulation of the theory of relativity, both special and general.<sup>18</sup>

The anthropomorphic origin of the principle of non-contradiction receives additional support by considering the evolutionary and developmental emergence of man's cognitive capacities. It points to the existence of a very specific type of an *intuitive ontology* called in the cognitive science the *folk ontology*.<sup>19</sup> This ontology is a set of cognitive biases or, in other words, non-reflective beliefs on the structure and behavior of reality at the level where the human species evolved. A more careful look at the components of the folk ontology reveals that the ontologically interpreted principle of non-contradiction corresponds very well with the category of *physicality* which is a basic mental tool for conceptualizing objects. This category entails that "solid objects do not do nor readily pass directly through each other or occupy the same place at the same time as each other."<sup>20</sup> Violation of this category would lead into a situation that is physically impossible and cannot become reality thereby implying a logical contradiction. In effect, the non-contradiction principle bears markedly anthropomorphic character that appears on both ontological and epistemological level. On the former it reflects the structure of reality that constitutes the habitat of the human species and, on the latter, it offers mental tools that correspond to this structure. Most importantly, however, the adaptive and developmental mechanisms are responsible for this correspondence not being a result of a mere chance. By invoking the famous *Boyd-Putnam no miracle argument* central to the claims of the *scientific realism* in the philosophy of science,<sup>21</sup> one can expect that without the adaptively and developmentally acquired folk ontology approximating the reality's structure at the level which human species inhabits, its survival would be a miracle.

In the strict sense the loss of the logical validity of the principle of non-contradiction constitutes for Heller the point of departure for the formulation of the logical apophatism. His path to this idea reaches back to the medieval period and, in particular, to the double truth theory which emerged in the 13<sup>th</sup> century in the thought of the Latin Averroists such as Siger of Brabant and Boethius of Dacia.<sup>22</sup> Heller indicates that this situation may occur in the development of science where two theories, that contradict themselves, coexist until proven otherwise.<sup>23</sup> Although in the classical

17 E.g., Birkhoff – Bennett, "Felix Klein," 145–176.

18 Einstein, "Geometria i doświadczenie," 84.

19 Barrett, *Cognitive Science*, 62.

20 Barrett, *Cognitive Science*, 62.

21 E.g., Ladyman, *Understanding Philosophy of Science*, 213, 216, 244–252.

22 Heller, *Sens życia i sens Wszechświata*, 86–89.

23 Heller, *Sens życia i sens Wszechświata*, 98.

idealized thinking such situation is hardly tolerable, there are formal tools which may alleviate the problem thereby showing rational ways how to handle contradictions. This is the major task of the *paraconsistent logics* which are designed for this very purpose.

As Heller relates, the systems of paraconsistent logic were pioneered by Nikolay Vasiliev but the first rigorous system of such logic was proposed by a member of the Lvov-Warsaw School of Logic, Stanisław Jaśkowski. He proposed a logical system named the *discursive logic* in which he achieved a unique effect of quenching the *overflow* of the system when from two contradictory statements anything follows. Consequently, logical systems that tolerate contradictions and do not lead to the overflow (explosion) bear the name of the *paraconsistent logics*. Contradictory statements should be referred to as inconsistent. Heller considers the existence of the paraconsistent logics as a sure sign that the classical logic equipped with the law of Duns Scotus does not exhaust the notion of rationality and that contradictions do not have to imply rationality. More importantly, however, this allows him to conclude that the Divine logic is not the logic in which “anything goes” and that the Divine mind does not tolerate overflows.<sup>24</sup> In order to support his claims, he refers to the works of Polish philosopher and cognitive scientist Robert Poczobut who writes as follows: “Thanks to the resignation from the law of non-contradiction it turned out that the human mind can function in a manner significantly departing from the classical standards of rationality. The emergence of such systems as [paraconsistent logic] does not mean that our mind should produce contradictions. The key point is that their appearance should not lead to destruction.”<sup>25</sup>

### 3. In the Realm of Categories

Inasmuch as the paraconsistent logics appear as a valuable point of departure in the study of the nature of the Divine rationality, Heller takes up a quest for a very general formal framework in which the relations between the different logical systems could find their proper expression. He has identified such a framework in his search for the most fundamental ontology consistent with the contemporary physical theories. This framework bears the name of the *category theory* and constitutes a highly abstract mathematical formalism regarded presently as the most accurate expression of the understanding of a structure and a candidate for the foundation of all mathematics due to its great unifying power. Any rigorous presentation of this

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<sup>24</sup> Heller, *Ważniejsze niż Wszechświat*, 52.

<sup>25</sup> Poczobut, *Spór o zasadę niesprzeczności*, 361.

theory reaches out beyond the scope of this study. Its brief conceptual outline will supply the necessary intuitions.<sup>26</sup>

In most general terms a *category* is a collection of objects connected with arrows called *morphisms* which need to obey a set of formal conditions thereby forming an algebra. And now comes the most important point for this study: this algebra carries information on the type of logic that governs a particular category. For instance, if the arrows of a given category obey the rules of the Boolean algebra, then the category has the classical logic as its proper. As one might rightly expect, there exists a category that is governed by the paraconsistent logic and it bears the name of *co-topos*. Heller sums it up as follows: “Each category is a world of its own, a world with internal logic and geometry which admit of different ontological interpretations. One can also speak of the family of all categories (‘the category of all categories’) and of its proper logic, strictly interacting with the internal logics of all categories.”<sup>27</sup>

Heller’s wish in resorting to the highly abstract category theory is that it may serve as a formal tool to approximate the *universal logic* which, in some sense, could be equated with the logic of the Divine mind. He indicates clearly, however, that the current studies on the category theory do not yet directly confirm the existence of the universal logic but they make such development possible and for the time being some form of logical pluralism needs to be maintained. One conclusion stands firm, though: “to assume in this conceptual context that the classical logic is the universal one looks at least as a suspicious doctrine.”<sup>28</sup>

There is no doubt that the purely formal considerations of logical systems located within the general framework of the category theory reveal that rationality is not limited to its human modes. Inferences on the Divine rationality drawn on that basis will considerably gain its strength, however, when references to the structure of the created order are made. Heller pursues this line of argumentation by showing that quantum mechanics may be considered as a single category called *topos* which is governed by its proper logic. This logic is a generalization of the classical two-valued logic and introduces a third logical value: *meaninglessness*.<sup>29</sup> This value is reflected in the Heisenberg’s uncertainty principle which stipulates that the simultaneous measurement of the values of the so called incompatible physical quantities (e.g., position and momentum) with infinite accuracy is impossible. This, in turn, justifies Heller’s fascination with the idea of logic as a *physical variable* in light of which the two-valued classical Aristotelian logic reflects the logical structure of reality proper to its region in which the human species has its habitat. Evidently, nature does not have

<sup>26</sup> Heller, *Ważniejsze niż Wszechświat*, 35–40.

<sup>27</sup> Heller, *Ważniejsze niż Wszechświat*, 39–40.

<sup>28</sup> Heller, *Ważniejsze niż Wszechświat*, 40.

<sup>29</sup> Griffiths, *Consistent Quantum Theory*, 60–64.

to operate according to the rules that reflect our thinking and richer logical systems may underpin its noumenal structure.

#### 4. In Light of the *Triplex Via*

The apophatic (negative) theology is a broad concept and it admits a variety of meanings that developed over its long history reaching back to the writings of the Old Testament.<sup>30</sup> The general framework of the negative theology in the Christian tradition rests largely on the doctrine of the *Triplex Via* that has its origins in the *De Divinis Nominibus* of Pseudo-Dionisius. One of the most renowned instances of the application of this doctrine is the negative theology of St. Thomas Aquinas developed in connection with his attempt to introduce the existential component into the Aristotelian essentialism.<sup>31</sup> In most general terms unrelated to any type of metaphysical assumptions, The *Triplex Via* involves three steps by which the human mind ascends to the knowledge of God.<sup>32</sup>

First comes the *Via Causalitatis* which affirms that any discourse on the Divine nature is possible because the concepts used for this purpose have their origin in the world created by God. For instance, God is good because things created by Him are good. The following excerpt from Heller's main work on the logical apophatism reveals that the *Via Causalitatis* clearly enters into his understanding of this mode of theological discourse. He writes: "When we speak about the Divine logic, we can understand this logic in two ways: as logic of our reasoning about God or as logic which God (possibly) uses in his own reasoning. It is a rather obvious thing – at least for the believers – that we can infer something on the logic in the second meaning based on how logic functions in the world created by Him."<sup>33</sup>

While this excerpt will turn out useful in the discussion of the two next steps of the *Triplex Via* as well, Heller expressly admits here that it is because the world created by God its underpinning logic constitutes the point of departure to know what logic may characterize the Divine mind. Also, Heller observes acutely that since God spoke to man through Revelation, the human natural language and the classical logic it obeys has the capacity of revealing something about God.

The next step, the *Via Negationis*, concerns the radical disproportion between the finite character of concepts as the means of cognition and the infinity of God as the object of cognition. As a result, one can only know certain truths about

<sup>30</sup> E.g., Hochstaffl, "Negative Theologie," 725–726; Napiórkowski, *Jak uprawiać teologię?*, 46–47.

<sup>31</sup> Wilhelmsen, *Being and Knowing*, 33.

<sup>32</sup> A concise introduction to the *Triplex Via* can be found in: O'Rourke, "The *Triplex Via* of Naming God," 519–554.

<sup>33</sup> Heller, *Ważniejsze niż Wszechświat*, 33.

the Divine nature and not its entirety. For instance, if one considers the Divine goodness based on the experience of good things in the world, God is good not in the manner the world manifests its goodness, but radically other. In other words, an apophatic thinking enters in when an element proper to human conceptual equipment is denied in order to unveil what pertains to the Divine reality. As Frederick D. Wilhelmsen points out, the *Via Negationis* constitutes the moment of *agnosticism* in theology which serves to guard the theological discourse against the danger of anthropomorphism.<sup>34</sup> The effect of the *Via Negationis* in Heller's logical apophatism is clearly transparent in the explicit denial of the principle of non-contradiction as one moves away from the classical logic proper to the human natural reasoning to the realm of abstract logical systems admitting of deeper dimensions of rationality. Although this example stands at the center of Heller's argumentation, numerous other instances of the need to abandon the human modes of reasoning and conceptualization in science can be given. The transition from the classical to the quantum regime results in the invalidation of one of the key components of the folk ontology, namely that of *locality*, in favor of *non-locality*. Much the same way taking into account the relativistic effects challenges the common sense related concepts of space and time and replaces them with the abstract Minkowski four dimensional space-time. This process has been captured by Hermann Minkowski in the following assertion: "From now onwards space by itself and time by itself will recede completely to become mere shadows and only a type of union of the two will still stand independently on its own."<sup>35</sup>

It is surprising that in the context of the logical apophatism Heller does not bring in what he elsewhere calls the *Kant effect*.<sup>36</sup> He has coined this concept out in the course of an in-depth treatment of one of his favorite topics in philosophy, namely, that of *rationality*. In particular, he takes up the issue of the relation of the rationality of the Universe and the rationality of the human mind. By invoking the evolutionary scenarios of the origin of the human mentality, Heller claims that although the human mind is part of the Universe and the its rationality is part of the rationality of the Universe, the emergence of consciousness and the ensuing richness and autonomy of the human rationality resulted in this rationality being different from the rationality of the Universe. Unfortunately, Heller does not provide any further justification of this standpoint which remains in need of further substantiation by reference to the pertaining cognitive studies. Heller admits that this is a weaker claim than Kant's *a priori* categories but, in his opinion, the autonomy of the human rationality lies at the root of the scientific method. In doing science the human mind

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<sup>34</sup> Wilhelmsen, *Being and Knowing*, 33.

<sup>35</sup> Minkowski, *Space and Time*, 75.

<sup>36</sup> Heller, "Czy świat jest racjonalny?," 45–47.

creates mental representations of reality which, as science develops, are progressively purified of the mental artefacts to produce more faithful pictures of reality.

Interestingly enough, Heller uses the Kant effect to support his famous distinction between mathematics “with the capital *M*” and “mathematics with the small *m*.”<sup>37</sup> The purpose of this distinction is to justify the Platonic position in the philosophy of mathematics in light of which in formulating mathematics that is found in textbooks the human mind creates representations of the objectively existing world of mathematical structures littered with artifacts of the human thought which cause the Kant effect. The journey towards objectivity involves the successive elimination of these effects. Also, there are studies which demonstrate that symmetry interpreted as a change of perspective becomes a valuable tool towards objectivity which discriminates between what is subjective and changes, and what is objective and remains permanent.<sup>38</sup> Apophatism thus conceived correlates very closely with the cognitive function of metaphors which in accessing the unknown assert both “the like” (objective) and “the unlike” (subjective), resulting in an irremovable tension between what is and what is not.<sup>39</sup>

The classical concern that arises with the application of the *Via Negationis* is that pushing it too far may lead to the denial of any epistemic access to the Divine reality thereby relegating theology into the domain of mythology. So the third step, the *Via Super-Eminentiae* or *Via Transcendentiae* is meant as a rescue from this pitfall.<sup>40</sup> This *Via* stipulates that the attributes of the Divine nature such as goodness, beauty, perfection and many others must infinitely transcend anything that can be acquired on these attributes through the knowledge of creation. In other words, through negation, the Divine attributes are purged of every finite connotation and, in a union of affirmation and negation, their content is amplified towards infinity. Except for a very specific understanding of this infinity in the Thomistic metaphysics as the plenitude of the Divine existence, that is His *esse*, it remains notoriously vague and is in need of further clarification. It is not hard to notice that the Heller’s logical apophatism leads to noticeable epistemic optimism in this regard because, instead of being a barrier to knowledge, it naturally opens up new dimensions of rationality. The reason for such an outcome lies in that by shifting to abstract formal structures transcendence is not achieved by obscure intensification of negatively deanthropomorphized concepts but through transgression of limitations imposed on rationality by intuitive categories proper to the folk ontology. Ultimately, the classical emphasis on the negativity of the language in the apophatic theology turns in Heller’s logical apophatism into more positive statements on what God and the Universe are.

<sup>37</sup> Heller, “Co to znaczy, że przyroda jest matematyczna?,” 15–18.

<sup>38</sup> E.g., Grygiel, *Jak scena stała się dramatem*, 267–282.

<sup>39</sup> Lakoff – Johnson, *Metaphors We Live By*; Soskice, *Metaphor and Religious Language*.

<sup>40</sup> Wilhelmsen, *Being and Knowing*, 35.

The novel character of Heller's logical apophatism becomes fully evident as he articulates the precise sense in which generalization achieved in quantum mechanics can be considered as transcendence.<sup>41</sup> The gist of this lengthy and quite sophisticated argument comes down to the assertion that generalization in the context of formalized physical theories related by the principle of correspondence can be understood as transcendence in the sense that a generalized theory establishes the limits of applicability of the preceding one. Putting things in short, a generalized theory yields sense to its precedent. Regarding transcendence as providing sense to realities that depend on it in its being is an accepted understanding of this concept in theology.<sup>42</sup> As a result, a conceptually consistent way of understanding transcendence within formalized physical theories becomes available and the *Via Transcendentiae* turns into the pursuit of sense.

As one follows Heller's extensive elaborations on the idea of the logical apophatism, one gets an impression that he quite freely proceeds in concluding on the nature of the Divine mind following the neutralization of the non-contradiction principle. It turns out the justification of the legitimacy of crossing over to the realm of transcendence can be found in Heller's theological reflections on creation in which he directly equates creation with the bestowal of sense.<sup>43</sup> Although creation is an act of the free Divine will and there is no route of logical necessity from God to creation, Heller's claim clearly opens up a channel in which the pursuit of sense within the immanent order finds its natural extension into the Divine transcendence. This, in turn, squares with one of the principle tenets of Heller's thinking that rationality is not limited to the rationality of the immanent order: "At the very foundations of our efforts to explain the Universe in terms of the Universe itself there is something unexplained that points out beyond the Universe."<sup>44</sup>

## Concluding Remarks

With the course of this study drawing to its close, it is not hard to become impressed with the originality and sophistication of Heller's idea of the logical apophatism. The full articulation of this idea required the survey of many of Heller's works because his thinking in this regard forms a kind of a *nexus mysterioirum* which needs to be reconstructed from a variety of threads scattered in seemingly unrelated sources. The logical apophatism presents itself as a coherent standpoint: while

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41 Heller, "Generalizations: From Quantum Mechanics to God," 191–210.

42 E.g., Lehmann, "Transcendence," 1734–1742.

43 Heller, *Sens życia i sens Wszechświata*, 202–204.

44 Heller, *Science and Faith in Interaction*, 160.

retaining the key elements of the classical *Triplex Via*, *via causalitatis* and *via negationis*, it instills considerable epistemic optimism into *via eminentiae* whereby the classical emphasis on negation in the theological language shifts towards ontologically driven quest for the ultimate sense of all that exists.

However, careful insight into Heller's argumentation raises a certain concern which has clearly come up as a response to the attempts of applying the formal tools to the non-formal language of theology. In particular, this regards Józef Życiński's implementation of the *Skolem-Löwenheim Theorem* to support the concept of the *lexical openness of theology*<sup>45</sup> boldly countered with the polemical voice of Anna Lemańska.<sup>46</sup> It turns out that Życiński and Heller are both aware that their formal arguments may not get up to the full speed for the reason best expressed in the following assertion made by Heller: "The view on the world as well as the view on the religious world is not a formal system but logic has this unique ability of transferring certain logical rules from formal systems to non-formalized reasoning. The latter always profit from this."<sup>47</sup>

There is no doubt that logic cannot be taken to carry the full weight of the apophatic approach in theology. However, since the formal aspects of the theological language appear to follow strikingly similar laws in this approach as compared to its semantic layer, these aspects should be regarded as a significant factor in the ascent of the human mind to the knowledge of the Divine nature.

Another interesting outcome of this study is the clarification of the relation between the concept of anthropomorphism and apophatism. Inasmuch as considerations of the evolutionary epistemology suggest that anthropomorphism points specifically towards to the conditions of the human condition, apophatism does not have to be bound to a cognitive effort exercised by the human mind exclusively. Rather, it arises as a consequence of the disproportion between the finite cognitive capacities of any mind that could have potentially evolved in the Universe and had the infinite God as the object of cognition. For instance, if a hypothetical mind capable of acquiring knowledge of God emerged at the quantum level, its conceptual furnishing would be non-anthropomorphic with such categories as non-locality at its disposal. A fitting term for that would be "quantomorphic." Consequently, apophatism does not have to presuppose anthropomorphism and not only quantum but any finite conceptual framework can serve as a point of departure in the apophatic ascent to the knowledge of God.

Last but not least, Heller is fully aware that each abstract system of logic including that based on the category theory is but a mere construct of the human mind and

<sup>45</sup> Życiński, "Wielość interpretacji," 21–41; Życiński, *Teizm i filozofia analityczna*, 11–46.

<sup>46</sup> Lemańska, "Twierdzenie Skolema-Löwenheima," 99–108.

<sup>47</sup> Heller, *Sens życia i sens Wszechświata*, 89.

it can serve at best “as a good exercise in the “theological logic” and noting more.”<sup>48</sup> He continues: “The statement that in his thought God is compelled to use one of our systems of logic would be just another instance of anthropomorphism. In the Judeo-Christian tradition God has always been considered as the Highest Rationality, infinitely exceeding the human patterns of thought.”<sup>49</sup>

There is no doubt that Heller’s idea of the logical apophatism accentuates an important dimension of overcoming anthropomorphisms through which our modes of reasoning are enforced on how God thinks. Heller’s approach is unique in the sense that instead of studying the limitations of natural language with its corresponding classical logic in theology, it reaches out to the realm of abstractness and tries to establish these limitations from a generalized perspective. The upshot of Heller’s philosophical reflection is that it is one of the greatest anthropomorphisms to think that God thinks as we do. God thinks infinitely more.

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<sup>48</sup> Heller, *Ważniejsze niż Wszechświat*, 51.

<sup>49</sup> Heller, *Ważniejsze niż Wszechświat*, 51.

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