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IS PROBABILISTIC THEISM A TENABLE IDEA?
CRITICAL REMARKS ON *OPATRZNOŚĆ BOŻA, WOLNOŚĆ, PRZYPADEK* BY DARIUSZ ŁUKASIEWICZ

In my paper, I will limit myself to a critical presentation of the last part of Dariusz Łukasiewicz's book *Opatrzność Boża, wolność, przypadek* (*Divine Providence, Freedom, Chance*)[1] and refer to the chapter on probabilistic theism. As Łukasiewicz admits, the term *probabilistic theism* is not in common use. It has been coined by the Author to refer to certain content and theses. It is therefore the Author's task to validate the aptness of the name invented in order to convince the reader that the name is not empty or misleading. Has he succeeded?

Somewhat contrary to the title of the chapter, the focus of attention is not probability but the category of chance.[2] What it designates, along with some derivative concepts such as chaos, randomness and indeterminism, made an amazing career in the 20th-century physics. The indeterminism of the so-called deterministic chaos and indeterminism of quantum mechanics are the issues that boast weighty and widely discussed interpretations, which have crossed the domain of physics itself and have become the subject of philosophical and theological speculations.

The cognitive status of these concepts has evolved. They started as properties of a particular class of dynamic systems, within an interpretation of physical theory offered by quantum mechanics, to develop towards generalized statements about the ontology of the inanimate natural world. Deterministic chaos became a false-maker of Laplace's determinism, whereas Bell's inequality and Alain Aspect's

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[1] Dariusz ŁUKASIEWICZ. *Opatrzność Boża, wolność, przypadek: Studium z analitycznej filozofii religii*. Poznań: W drodze, 2014.

[2] Possible meanings of the term *chance* are clarified in the book's appendix titled "Semantics of Chance."

experiments undermined the hidden variables theories based on local realism and made us think seriously of quantum probabilism as an ontological indeterminism rather than an epistemic one.

In the nineteenth century, a conceptual and quantitative probabilistic description was successfully developed to explain the thermal movement of particles (J. C. Maxwell). The laws of chance began to be discovered and used in the emerging mathematical statistics (A. Quètelet) and in the analysis of measurement errors (F. C. Gauss). The emphasis was clearly on regularity, i.e., statistical laws, not on the very fact of the randomness of natural processes. Statistical mechanics, when describing the thermal movements of large assemblies of particles, treated the occurring probabilities as a result of our ignorance concerning the system being studied—in accordance with the ideas of J. W. Gibbs, one of the proponents of statistical mechanics. That typical tendency to interpret probability in epistemic terms was broken by the description of the second principle of thermodynamics given by L. Boltzmann. He managed to associate the concept of entropy with the concept of probability. An increase in entropy means moving from less to more probable combinations of particles. For a settled number, there are far more probable combinations than improbable ones. Entropy becomes an objective measure of physical disorder. The issue of subjective knowledge or ignorance of the observer moves to the background.

However, it was only the emergence of quantum mechanics at the beginning of the twentieth century, and its turbulent development over the last century, that slowly but relentlessly brought about the ontological, not merely epistemic, understanding of indeterminism. The interpretation of quantum mechanics as a probabilistic theory of individual molecules and atoms became the key issue. Vitally important was a series of experiments on individual quantum objects conducted in recent decades of the last century. Chance and randomness in the quantum area appear to be ineradicable, and indeterminism is no longer of epistemic nature, but it becomes an ontological indeterminism.

This is how the situation of probabilistic understanding of significant problems in modern natural sciences might be outlined. It becomes the basis for further theological reflections by the Author. He often refers to Michał Heller and David Bartholomew, who share the view of the objectivity of chance, its ontological rather than epistemic nature, and consider chance to be the fundamental element of the ontological structure of reality. Chance, in their view, is not any pseudo-randomness that comes from our ignorance, but it becomes an ontological category. Like the aforesaid authors, Łukasiewicz refers to science, in which randomness has become

a significant and recurrent theme.[3] Also, he follows those who, emboldened by such a situation in science, begin to treat randomness as a fact of more general, that is, metaphysical, nature. Thus, chance is drawn into theological consideration.

I think that the domain of philosophical reflection on randomness is left too quickly by the Author and the theological threads are set definitely prematurely. He abandons the philosophical reflection on chance in favor of the theology of chance equipped with essentially only two theorems. Firstly, randomness is an ontological fact. Secondly, in the natural world, chaos is constantly intertwined with regularity. Order arises from chaos, and at the bottom of the world lies randomness. That is not enough.

Łukasiewicz does not analyze the concept of probability, which in the scientific sense is an overriding categorial concept that binds two others: quantity and randomness. To my mind, the Author should remain in the domain of philosophical reflection and indicate which interpretation of probability he adopts.[4] He is content to provide an enigmatic, one-sentence long statement: "probability is the measure of randomness and uncertainty of chance-like events" (p. 342). Let us note that Michał Heller, similarly to others,[5] defines chance by the concept of probability.

I will try to show how the philosophical thread could be expanded to benefit from it in a theological reflection. To this end, first, the concept of chance in its most radical sense will be considered, next, the algorithmically random strings, and finally, the combination of chance and infinity.

THE CONCEPT OF CHANCE REVISITED

To start with, let us consider the last of the possible meanings of the term *chance* analysed in the book's appendix ("Semantics of Chance"): "[chance] has no cause, it is not subject to any laws, it is pointless and irreducibly unpredictable" (p. 393). It seems that neither the Author nor the p roponents of probabilistic theism, who are said to use this concept, do not understand the full scale of the radicalism of such conceptualization of chance. Łukasiewicz writes that "from the great number of random and pointless lower-level events, there arises a certain order of events and systems behaviour at higher levels" (p. 342). However, the problem is that if, according to his definition, chance is not subject to *any* laws, then it is not subject

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[3] Łukasiewicz, *Opatrzność Boża*, 279.
[4] Donald Gillies, *Philosophical Theories of Probability* (London: Routledge, 2010).
[5] Toby Handfield, *A Philosophical Guide to Chance* (Cambridge: Cambridge University Press, 2012).

to the law of chance either! Then, the great number of random events will not produce the regularity to which the Author refers. He does not distinguish between absolutely random events and random probabilistic events, which is a necessary distinction in this context.[6] The former have no regularities, while the latter are subject to statistical regularity.

It is worth noting that the world in which there is a chance mathematically describable and the world in which chance cannot be mathematically described are two completely different worlds, and it is only a pity that the Author does not pay attention to this problem. On the one hand, we have a mathematical chance, describable in numbers: measured and tamed, as Hacking says, defined on a set theory structure. On the other hand, we face what is incalculable, without any regularity, even statistical one—non-measurable sets of events.[7]

Let us use imagination and think of a possible world of true chaos, compared with which our world is the peak of order, full of regularities. Ours is an intelligible chaos as it is expressible in terms of a mathematical theory of probability; however, in the radical version, we have an impenetrable metaphysical chaos, inexplicable and ungraspable by any quantitative relationships. D. J. Bartholomew rejects such a concept, arguing that total unpredictability at all levels is impossible;[8] but that is chance viewed from the perspective of our world, not the imaginary one.

The concept of an absolutely random event, which is indispensable when discussing absolute metaphysical indeterminism (W. Załuski), is a fully legitimate concept to be considered within the philosophy of chance. It should be taken into account even more in natural theology, when God is construed as the Lord of chance, who by His omniscience does not turn every randomness into pseudo-randomness, making chance an illusion from His perspective.

It is worth tracing the path of thought which starts with simple images of our probabilistic experience, which is mathematically describable, and then negates such mathematical intelligibility, thus receiving an ontological concept. This is how an absolutely random event emerges—a border concept. It is based on a denial of the phenomenon of stability of relative frequencies which is fundamental for the probability theory and its connection with the physical world. Statistical

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[6] See in Wojciech Załuski, *Skłonnościowa interpretacja prawdopodobieństwa* (Tarnów: Biblos, 2008), 113.

[7] The mathematical model consists of events which cannot be accounted for by probability theory. Event space is uncountable, and, among its subsets, there are non-measurable subsets; they cannot be characterized by probability measure.

[8] David J. Bartholomew, *God, Change and Purpose* (Cambridge: Cambridge University Press, 2008), 221.

laws and the laws of big numbers are denied, and thus an ontological concept is constructed: a radical and extreme concept.[9]

Let us illustrate in yet another example the method of obtaining ontological concepts when the starting point is a mathematical idea; we shall begin with the concept of algorithmic randomness.

Let us start by presenting a set of projected results of tossing a perfect coin, when the appearance of heads is marked with one and tails with zero. A binary string thus obtained is called a random string if the principle of equal probability of results is secured. The results of tossing the coin do not depend on each other; the current result does not depend on the previous ones, and a number of tosses does not allow you to predict the result of the next toss. This simple example, where the conditions of tossing are idealized so that the principle of equal probability is secured with independence of particular events, serves as the starting point for the common understanding of the idea of chance: randomness means unpredictability.[10]

The algorithmic information theory employs the concept of regularity present in random strings. Let us take three random toss sequences:

- 01010101010101
- 01101010000010
- 11011110011101

According to the probability theory, all three results have the same probability equal to $1/2^{14}$ because the above sequences have fourteen elements each. However, the last two sequences seem random, but the first does not; everyone can see a simple regularity in it. Is it possible to provide a more subtle and fine-grained definition of a random sequence that would exclude such cases and eliminate any regularity, periodicity and recognizable patterns?

Within the algorithmic theory of information three ideas have been developed, coming from P. Martin-Löf, A. N. Kolmogorov, and C. P. Schnorr, respectively. Let us take a closer look at the second one, which, in addition to Kolmogorov, was also dealt with by G. Chaitin and R. Solomonoff. The concept of algorithmic complexity is vital here.

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[9] Events which cannot be accounted for by any probabilistic theory, broadly speaking: non-measurable sets, whose existence is closely related with the necessity of the axiom of choice, become a toy model for the truly ontological idea of absolutely random events.

[10] A player tossed a coin five times and obtained the following random string: 00110. What is the probability of getting such a result? The tosses are independent of each other; in each toss, the probability of heads or tails is 1/2, respectively. Therefore, the probability of receiving that string equals $1/2^5$.

The algorithmic complexity of a binary string S (i.e., a string composed of zeros and ones) is the length of the shortest program which can also be written as a binary string and can reproduce the string S with the use of a computing device. We can say that a string is algorithmically random if it has maximum algorithmic complexity; in other words, its algorithmic complexity is comparable in length to the string.[11]

In other words, let us assume we have a program that generates a given string. If we write this program as a binary string, which is possible, and we find that its length is comparable to the length of the output string, then the output string is algorithmically random.

A string consisting of the pair 01 repeated one million times has little algorithmic complexity. The program ("copy 01 one million times") generating such a string, when you write it in a binary system, will be much shorter than the output string. Similarly, the rule for writing a binary expansion of $\sqrt{2}$ will be much shorter than a sufficiently accurate expansion of this number. However, there are also binary strings that cannot be compressed in any way, and the program generating such strings will be of comparable length.

The algorithmic approach to the idea of randomness is more subtle (i.e., randomness is no longer conceived of as mere unpredictability) and allows patterns and regularities to be eliminated from sets of random strings. Here, one can see a simple mathematical model that illustrates the understanding of chance as lack of any rules or patterns, even those that might appear in the order of tosses that are independent of each other.

At the same time, we have a transition from randomness to complexity. What is random in the algorithmic sense is also complex in the sense that it cannot be simplified or presented in the form of an algorithmic abbreviation, a computer program shortening the output string.

One may ask whether it is possible to point to a binary string that is algorithmically random or to prove its existence in accordance with the high standards of mathematical proofs. This, let us remember, should be a string for which there is no generating program shorter than the string itself.

There is such a string; it is called Chaitin's constant. It is a very special irrational number from the segment (0,1) that is written in the binary system as a random string. Its definition is precise and subsequent digits in a binary expansion are strictly defined. In the algorithmic sense, it is random to the extreme. There is no compression formula for it; it is a mathematical fact that cannot be obtained

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[11] Edward BELTRAMI, *What is Random? Chance and Order in Mathematics and Life* (New York: Copernicus, 1999), 91–94.

from any simpler formula. In addition, it has one more astonishing property; it is uncomputable. Its value cannot be calculated with any computer program. There is no concise algorithm that would describe it in a finite way.

Undeniably, Chaitin's constant has an impact on imagination. It astonishes and encourages philosophizing, as evidenced in the books written by its discoverer.[12] Algorithmic randomness somewhat unexpectedly combines the concepts of chance and complexity. It encourages ontological speculations about a possible but very unfamiliar world, whose mere herald would be Chaitin's constant.

It would be a world with maximum disorder, consisting of what is without any pattern, law or rule. A world not for us; it would be incomprehensible for our rationality, which seeks algorithmic simplifications, simple laws describing complex situations. It would be a world built on chance as its foundation from which complexity grows; complexity which cannot be simplified because it is simple! It cannot be inferred from anything, nor can it be reduced to anything simpler! It would be a world without any types, species, or classifications, a world of mathematical statements without any reasons or justification, a world with no perspective for a general theory of everything.[13] There would be no idea of similarity in that world because everything would be unique, without exceptions. It would be a world for beings cognitively more powerful than we are: the super-minds capable of immediately knowing Chaitin's and other uncomputable numbers holistically, without any recursive rules or analytic representations, because they simply do not exist there. It would be a world for the minds able to directly grasp infinite complex mathematical objects.

We are faced with an ontological concept, the content of which needs to be thought about thoroughly and might be used in the philosophy of chance, in the metaphysical reflection on complexity and simplicity. I think it may also be interesting for the philosophy of God, when it speculates on the issue of God's creating not only our world, us and our natural environment, but also beings with much greater epistemic capacities than ours.

RANDOMNESS AND INFINITY

Chaos is the negative of what is intelligible, just as nothingness is the negative of existence, infinity—the negative of finiteness, and impossibility—the negative

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[12] Gregory CHAITIN, *Meta Math! The Quest for Omega* (New York: Pantheon Books, 2005).

[13] Gregory CHAITIN, "Granice matematyki [The limits of mathematics]," *Świat Nauki*, no. 4 (2004): 38–43.

of what is possible. Chaos is a total irrationality, which cannot be conceptualized, grasped in any way, or even quantified.

If we have such negatives as infinity, impossibility, or unintelligibility, why limit ourselves in our ontological reflection to randomness and speak only about "God of chance"? Why not speculate, in natural theology, about "God of infinity," "God of impossibility," or "God of the non-existent"? By not setting his discussion of chance within a wider context, the Author unnecessarily narrows down the subject. Additionally, there emerges a risk of certain misconceptions which might be eliminated if analogous analyses were applied.

I would not dare to provide a description of God in terms of negatives, but I can demonstrate, in the context of philosophical reflection, how certain ideas might be combined. Let us consider the merger of probability and infinity.

Here we have two ideas—randomness and infinity—as well as their mathematical representation as used in the probability calculus when the set of events becomes infinite. In this context, we need to note the following significant property of an infinite string consisting of identical and random events (e.g., an infinite string of randomly selected letters of the alphabet): from such an infinite string any finite substring can be selected with probability almost equal to one.[14]

We need not keep reserve or feel intimidated by the above claim, which may appear abstract and incomprehensible. It is easy to represent it in a simple form: a monkey pressing randomly elements of a laptop keyboard for an infinitely long time will almost certainly write all of Shakespeare's works. In this image, the monkey is a generator producing an infinite random string of letters, punctuation characters and spaces; and Shakespeare's works are simply an example of a long finite substring obtained in a random way.

There is a large number of such finite random substrings which can be selected from the output string with probability equal to one. This observation has a beautiful literary expression in an excerpt from *The Total Library* by J. L. Borges:

> Everything would be in its blind volumes. Everything: the detailed history of the future, Aeschylus' *The Egyptians*, the exact number of times that the waters of the Ganges have reflected the flight of a falcon, the secret and true nature of Rome, the encyclopedia Novalis would have constructed, my dreams and half-dreams at dawn on August 14, 1934, the proof of Pierre Fermat's theorem, the unwritten chapters of *Edwin Drood*, those same chapters translated into the language spoken by the Garamantes, the paradoxes Berkeley invented concerning Time but didn't publish, Urizen's books

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[14] See the idea of the proof on: http://en.wikipedia.org/wiki/Infinite_monkey_theorem; the proof itself can be found in Emmanuel LESIGNE, *Heads or Tails: An Introduction to Limit Theorems in Probability* (Providence, RI: AMS, 2005), 81.

of iron, the premature epiphanies of Stephen Dedalus, which would be meaningless before a cycle of a thousand years, the Gnostic Gospel of Basilides, the song the sirens sang, the complete catalog of the Library, the proof of the inaccuracy of that catalog. Everything: but for every sensible line or accurate fact there would be millions of meaningless cacophonies, verbal farragoes, and babblings. Everything: but all the generations of mankind could pass before the dizzying shelves—shelves that obliterate the day and on which chaos lies—ever reward them with a tolerable page.[15]

We have a picture of all human knowledge that can be conceptualized, written down and reconstructed not in the order of its discovery and categorizing, but in order of its obtaining from an infinite random string of letters selected in an identical and perfectly random manner. It suffices to *randomly* and *infinitely long* throw a coin, a dice, or press the computer keys in a perfectly random way to face all sorts of finite meanings—provided they can be conceptualized, i.e., transformed into a string of symbols.

The above is an interesting fact encountered when one deals with the probability calculus applications; though exciting, it is nothing more than a simple task for a math student. That is the epistemic status of the above-quoted calculations. But we can change it and start using the "monkey theorem" in the order of ontological reflection. Then, we receive a model demonstrating a positive effect resulting from the interplay of two negatives: pure chance and infinity. As a result, we have an infinite collection of different meanings.

This image allows us to think about the concept of chance in an entirely new manner; not a hopeless disorder without any structure, a total anarchy and lawlessness, but a vast richness of meanings hidden in innumerable and chaotic alphabet permutations. When we give up the idea of infinity, then the theorem about the monkey pressing the computer keyboard ceases to be true. There is no "almost certainly" then; we are dealing, at most, with an extremely high probability, but it does not guarantee achieving any meaningful result.

The aforesaid mathematical fact, which we treated as a metaphysical model, makes it possible to express certain ontological intuitions; it indicates the direction of their development, clarification and refinement, or—if necessary—their rejection. It is well known that both Cantor's infinity theory and the theory of probability abound in paradoxes and statements that contradict our commonsensical intuitions. The latter must be dispensed with; but one can follow the statements about infinity and probability offered by mathematics and treat them as the basis for ontological intuitions, where the ideas of chance and infinity come into play.

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[15] BORGES, Jorge L., *The Total Library: Non-Fiction 1922–1986*, trans. Eliot Weinberger (London: Penguin, 1999).

One can go even further and treat the above-discussed idea as a tacit ontological assumption. The foregoing "toy-model" can serve as a starting point for reflections on the metaphysics of our world.

Is it not justified to claim that the ontological foundation of this world is chance and infinity? As in the words of M. Henry: "all that is finite is woven from infinity, mixed with it, inseparable, taking over from infinity all that it was and will be." Is it not the case that infinite randomness, which requires infinite patience (i.e., eternity), conceals all conceivable meanings?

FROM PHILOSOPHY TO THEOLOGY OF CHANCE

Dariusz Łukasiewicz enters the realm of theological consideration equipped with the category of chance as an indispensable element of the ontology of our world. In the book, we can read that chance is part of God's plan and God uses chance to achieve His aims. These "revelations" are combined with select theses of Christian theology; the Author even uses the term *Christian probabilism*. What does he get?

The combination of theological theses with metaphysical claims about the key role of chance in the created world triggers an obvious question: Do the Christian truths discussed in the subchapters "Incarnation" and "The Emergent Nature of the Spirit" gain anything from that combination? I am afraid they do not. The text is persuasive, built on semantic invention; but, in the Author's presentation, I cannot see any relationship between the postulated randomness of reality and the redemptive event of Incarnation. Instead, we get a number of formulations about "probabilistic theology," "chance theodicy," "probabilistic model of divine providence," "probabilistic theology of chance," or the aforesaid "Christian probabilism." Is it not an overuse of some attractive terms behind which one cannot find much content? To show that my objections are not unfounded, I will consider some examples.

We can read: "… from the viewpoint of probabilistic theology, pain and suffering can have different causes" (p. 334). The statement "pain and suffering have different causes" remains true from a thousand viewpoints, and the recognition of the metaphysical thesis of the randomness of the world has no impact on its truthfulness. "There is no reason to believe that the fall, or sin, has been the first cause of suffering and death, that is, of evil" (p. 334). The truth value of the rejected thesis—sin is the first cause of suffering and death—has nothing to do with the ontologically understood chance. The Author's statements are provided without proper justification. He continues: "Foremost, there is no reason to hold

that, before the fall, there had been a sinless state" (p. 334). I do not want to discuss the soundness of that claim, but I want to point out that it remains in force no matter whether chance is or is not a pervasive element of the ontology of the reality we live in.

Regarding the incarnation of the Son of God, we read at first: "The incarnation took place in a world full of risk and uncertainty ... In other words, Jesus, because of his human nature, was exposed to the same dangers as all other people at the time. He was uncertain about his fate and destiny, he had doubts and anticipated events, he estimated probability and experienced strong emotions" (p. 338). Further, we can read that he could have caught a disease like pneumonia and could have died prematurely.[16] At this point, the Author withdraws from this argumentation, because we read: "Indeed, Jesus lived in the same world where everyone else lived, in the world of risk, danger, tragic random events and great disasters, but he was not of this world ..." (p. 339).

The problem is not the breakdown of argumentation, because the question concerning the mystery of the fully divine and fully human nature of Jesus, the Son of God, has on many occasions caused even more spectacular confusion. The point is that applying the metaphysics of chance to Christian theology adds nothing interesting to our interpreting of the mystery of the Chalcedonian dogma. The merger of the philosophy of chance with the History of Salvation does not appear rewarding—it is misconceived.

The Author's theological consideration is concentrated on God's omniscience in the world in which chance is ineradicable; Łukasiewicz writes: "The theistic position which assigns an important role to chance in the ontology of the world must propose a firm and tenable doctrine of God's omniscience" (p. 313). Here, we have a real problem, not an apparent one. If we do not adopt the metaphysical thesis about the ineradicable presence of chance, the truth about God's omniscience will not raise problems.[17]

In Łukasiewicz's narrative, we often find a contradictory term: *God's limited omniscience*,[18] which can be treated either as a misleading term or, more kindly, as a paradoxical expression of the aporia that theological reflection encounters. The aporia is thus formulated: "chance—in one of its basic meanings—is an

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[16] Here we come across the above-criticized stylistic device: multiplication of chance-related concepts which are not really connected with the thesis about the ontological status of chance. Humans have always experienced uncertainty about their fate, but this fact is unrelated to the thesis about randomness or pseudo-randomness of the world.

[17] But then, there will arise the problem of human freedom.

[18] Omniscience is by definition unlimited; otherwise, it ceases to be omniscience.

unpredictable event, sometimes objectively and irreducibly unpredictable. Thus, even an epistemically omnipotent agent cannot know what will happen" (p. 314). Or, in a slightly different formulation: "Probabilistic theism, which assumes God's limited omniscience and the existence of chance events in the world, seems to be, at first glance, the only possible variant of the theology of chance. If chance is an objectively unpredictable event, no subject can (infallibly) know that it will happen, no one can foresee it" (p. 318).

Dariusz Łukasiewicz presents various options and attempts to eliminate the above aporia: an omniscient being ceases to be omniscient when faced with absolutely random events, the results of which cannot be predicted. I write "an omniscient being" because I simply cannot use the word *God* in that context. The context is constituted by a series of speculations on the idea of an omnipotent epistemic subject, who can either exist in time or be timeless. That omnipotent epistemic subject can, according to the Author, know the world of chance by knowing the distribution of probabilities, or that epistemic subject can know the world by knowing the deterministic rules that govern the world. The epistemic subject discussed by the Author is not God; it is merely a conceptualized being who knows everything.

The aporia depends on how that being—who knows everything and who is called God— comes to know everything. Is it not the case that the cognitive skills of that all-knowing epistemic subject are described here in accordance with our own inabilities? Is it not an anthropomorphic description? Is that all-knowing epistemic subject not presented here as someone who knows what I cannot know?

The Author writes: "God's knowledge of the future is based either on causal determination of events at different levels of the world, or on probabilistic calculations based on complete data about the past and present of the universe and of all beings existing therein. The data can be drawn from God's own experience as He is omnipresent" (p. 313). We can read further: "God can see all events, including all future events, which can be considered chance events. Thus, chance lies within the epistemic omnipotence of God" (p. 344). In that image of an incredibly efficient epistemic subject, our fragmented knowledge of deterministic regularities and probabilistic events—which seems to be ignorance rather than knowledge—is replaced with perfect knowledge.

The effectiveness of our cognitive apparatus and, at the same time, its huge insufficiency causes non-conscious projections of God's omniscience, to which also Dariusz Łukasiewicz succumbs. He takes them over, uncritically, from the philosophical tradition. However, it is necessary to be acutely aware of the risk

of anthropomorphization, which creates, on the basis of our epistemic condition, a particular image of the omniscient being.

I think that the relation between God and the world of absolutely random events can be presented, within the philosophy of God, in a manner avoiding the risk of anthropomorphization. But it is necessary to appeal to other divine attributes and to recognize that our spontaneous understanding of omniscience may be sufficient to formulate the aporia but insufficient to solve it. How to deal with that relation?

Let me start by noting that the Author's concept of God is very one-sided, and that one-sidedness is close to caricature. The God of his reflections is acting as the omnipotent and omniscient Providence. However, in my view, the concept of God, when related to a metaphysical thesis about the structure of reality (whatever that thesis might be), must be confronted with the image of God the Creator—which is a radical image.

The idea of creation appears in the book, but it does not contribute anything essential to the main line of argumentation. It is a pity that Dariusz Łukasiewicz does not follow D. Bartholomew's reflection on God's creation of chance. However, I do not mean Bartholomew's statistics-oriented speculations on how chance may have been created, but an independent development and generalization of the thesis concerning the creation of chance, leading in effect to acknowledging that God is the creator of everything: being and its negatives. God creates heaven and earth, but He also creates the disorder and wasteland, darkness and the mirror of waters; he creates the world of chance that mathematics, physics and cosmology of the twenty-first century must encounter. Chance, even the absolute chance, is a created reality.

The Creator is transcendent; He is above and independent of all creation. It is not the created reality that transcends Him, but He transcends the created reality. The created reality is not any problem for Him, nor any limitation, because He is the Creator, The Lord of existence. He is the Being who transcends everything, including chance. As pictured in the evocative phrase by an ancient thinker: "… the Spirit of God hovered over the face of the waters." God transcends not only chance, but also the regularities which, to many, appear to be the proper manifestation of God's wisdom in creation. But He does surpass both regularity and chance, as well as the opposition itself: regularity versus chance. It is necessary to stop anthropomorphizing and presenting God in a naïve way as someone who knows regularities and the laws of nature by grasping them essentially as we do—only incomparably better, and who does not know chance events as we cannot know them.

Dariusz Łukasiewicz and the authors quoted by him do not recognize that God transcends all created oppositions: freedom–necessity, possibility–impossibility,

regularity–randomness, reality–irreality, finiteness–infinity, nothingness–existence. And they do not notice one more important thing.

God reveals Himself through all that has been created: not only through the positives of being, but also through the negatives, such as nothingness or chance. This has been aptly expressed by Bernhard Welte; his description of nothingness ends with the following conclusion: "Infinite nothingness, whose power cannot be escaped, is not an empty nothingness, but a concealment, or a hidden presence of infinite and unconditional power that gives meaning to all and guards all sense. *The hidden* presence: voiceless, shapeless, perhaps terrifying, but after all, the presence ... the monstrousness and unconditionality of nothingness is a sign and trace of enormous and unconditional—though moving away and concealing—reality that guards all sense."[19]

After all these comments, how can the initial question from the title of this paper be answered? In the negative, I think. What we get is rather an outline of the idea, not a complete project. If the Author really wanted to investigate the category of chance—I do not mean the category of chance built on our commonsensical experience of randomness, but the contemporary concept of chance grounded in mathematics, physics and statistics—and develop it, he would face a fascinating project to realize within the indicated tripartite framework: mathematical and physical concepts as the starting point, giving them an ontological status within the philosophy of chance, and applying them to metaphysical speculations. Only on this basis can the final aim be pursued, which is developing the philosophy of God, but not so much the philosophy of God-the-Savior, but above all, the philosophy of God-the-Creator.

My last remark on that kind of theological reflection concerns what is called in the literature "the model of quantum providence" and is thus referred to by the Author: "God, acting on the quantum level, determines and controls the course of the entire history of both inanimate and animate nature" (p. 275). God's action is understood literally by the authors whom Dariusz Łukasiewicz mentions. Alas, they are like those who literally interpret the metaphor of God making the first humans and preparing leather clothes for them! Presented that way, God acts as one of the created beings among other beings; He is placed on the same level as other things of this world. The Author writes: "Plantinga calls this model of special action in the world *Divine collapse causation* (abbreviated as DCC). Therefore, DCC is simply a model of God's quantum providence, according to which, God

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[19] Translated from the Polish edition of *Religionsphilosophie*: Bernhard WELTE, *Filozofia religii* (Kraków: Znak, 1996), 74.

performs ten million extraordinary actions per second in relation to each quantum object (elementary particle)" (p. 157).

Such speculations violate God's transcendence; certain elements of the world cease to be dependent on God, and it is God who appears to be forced to acknowledge chance and act in the world through the mechanisms of this world. It does not matter that these mechanisms are as sophisticated as the collapse of the wave function.

That resembles the old dispute between Leibniz and Newton about the nature of space. Space is something created that God radically transcends—as is the reduction of the state vector in the GRW interpretation, referred to by Plantinga. Newton, however, believed that absolute space was the organ of God's omnipresence. Leibniz protested: "Mr. Newton says that space is an organ that God uses to experience things. But if He needs something to experience things, they are by no means entirely dependent on Him, and they are by no means His creation."[20]

I consider this protest to be justified, because Leibniz's God is transcendent, whereas the God of Newton is, to a certain extent, one of the things of our created world. A similar tension exists between the above-mentioned image of God causing a collapse of the wave function millions of times per second and the understanding of God by those who do not accept that image. I am one of the latter group.

Here we have different approaches to the opposition: God's transcendence–God's immanence; they strongly depend on what I would call the awareness, or sense, of God's majesty, on the one hand, and the mystery of His immanence, on the other. It is the tension between what is meant by "… who art in heaven" and what "… hallowed be Thy name" means.

Human recognition of God's immanence—the manifestation of the name of God—is done in an act of sanctification, admiration of His glory, which is a very personal and individual act. Our experience of God's transcendence and majesty, in turn, awakens the feelings of reverence and fear. The images of God function in the elevating context of such experiences; what is significant, they also derive their content from these experiences. The images of God do depend on the content of religious experience.

Reflections within the philosophy of God should respect that situation. Philosophical discourse about God's action in the created world is co-determined by a configuration of worship and admiration on the part of the participants, as well as their sense of God's majesty and divinity. This configuration is most often un-

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[20] Quoted after Michał HELLER, *Fizyka ruchu i czasoprzestrzeni* (Warsaw: PWN, 1993), 103.

recognized by consciousness, but it is influential when we assess the truth value of theses concerning the nature and manner of God's action.

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IS PROBABILISTIC THEISM A TENABLE IDEA?
CRITICAL REMARKS ON *OPATRZNOŚĆ BOŻA, WOLNOŚĆ, PRZYPADEK*
BY DARIUSZ ŁUKASIEWICZ

S u m m a r y

The article contains an evaluation of a fragment from the book *Opatrzność Boża, wolność, przypadek*, written by Dariusz Łukasiewicz.

Keywords: probability; chance; randomness; infinity; probabilistic theology; divine providence.

CZY MOŻNA OBRONIĆ TEIZM PROBABILISTYCZNY?
KRYTYCZNE UWAGI DO KSIĄŻKI DARIUSZA ŁUKASIEWICZA
OPATRZNOŚĆ BOŻA, WOLNOŚĆ, PRZYPADEK

S t r e s z c z e n i e

Artykuł zawiera krytyczną analizę fragmentu książki Dariusza Łukasiewicza pt. *Opatrzność Boża, wolność, przypadek.*

Słowa kluczowe: prawdopodobieństwo; przypadek; losowość; nieskończoność; teologia probabilistyczna; Opatrzność Boża.