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PREMISES FOR TRANSCENDENCE FROM NATURAL SCIENCES

Abstract: This article collects and analyzes the most fundamental assumptions present in the natural sciences that can be philosophically interpreted as suggesting the existence of Transcendence. These assumptions are implicit, operating independently of whether Transcendence exists or not, but they raise questions whose answers may indicate that the existence of Transcendence is much more probable than it seems. These assumptions are therefore premises for philosophical interpretations, not parts of strictly logical reasoning.

Keywords: Transcendence, natural sciences, methodological naturalism, pancomputationalism, Gödel's theorem, consciousness.

The natural sciences deal with death in many aspects. However, they do not deal with life after death and certainly not with eternal life as a domain of theology and religion. This does not mean, however, that these sciences do not use assumptions that lead to conclusions about the possibility of Transcendence. Before I move on to the premises for the existence of Transcendence, I must make a few methodological remarks. First, the natural sciences should be methodologically “indifferent” to the problem of Transcendence and we should not treat the results of scientific research as a premise in itself “for” or “against” the existence of life after death. Second, the premises result indirectly from the exact sciences, i.e. they arise at the interface of their research problems and methodological limitations, which are inherent and – as it seems – will never disappear. Third, these premises are therefore not an interpretation of the exact sciences, but an attempt to demonstrate the

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impossibility of answering some of the research questions, which scientists often overcome by implicit assumptions. Their presentation constitutes a “premise” towards an alternative answer to the questions posed.

1. PREMISE NUMBER 1: METHODOLOGICAL NATURALISM

Methodological naturalism itself can be a premise for the existence of Transcendence if we take into account the sources of its origin. The idea was basically to show the possibility of success of the exact sciences without appealing to supernatural forces¹. Methodological naturalism could therefore be presented as „the view that religious commitments have no relevance within science”². The strength of the premise of methodological naturalism is not obvious but it reveals a deeply embedded assumption: religious faith must be true, because only then can it be separated from natural science. Appealing to something that makes no sense should not affect the results of natural science. However, if there is a need for methodological demarcation, it is not a separation of something that is content-wise correct (natural science) from something that is devoid of content (religion). The demarcation takes place between two spheres that really exist and for this very reason can influence each other.

Of course, this may be a demarcation between ways of thinking, not between realities, so Transcendence would not have to exist and the premise would be baseless. This would mean, however, that the same human reason would be able to reach the truth in two ways at the same time, one of which would result from psychological needs³ (religion). Assuming that nothing exists after death, insisting that it does exist would be a matter of personal human needs rather than an

¹ P. DRAPER, *God, science, and naturalism* [in:] W. Wainwright, *The Oxford Philosophy of Religion*, Oxford University Press 2005, p. 272-303; cf. D. SAGAN, *Naturalizm metodologiczny – konieczny warunek naukowości?*, „Roczniki Filozoficzne” 61:2013, p. 74.

² D. PAPINEAU, *Naturalism*. *The Stanford Encyclopedia of Philosophy* (Fall 2023 Edition), eds. E.N. Zalta & U. Nodelman, URL = <<https://plato.stanford.edu/archives/fall2023/entries/naturalism/>>.

³ There are some interesting approaches to religion. Let us mention one study that refers to the types of thinking. Daniel Kahneman distinguished two systems of thinking: System I is fast, more intuitive and emotional, System II is slow, analytical – D. KAHNEMAN, *Thinking, Fast and Slow*, New York, 2013, p. 22-23. These two systems of thinking can also be applied to religious belief. The so-called Intuitive Belief Hypothesis refers to System I and states that if a person believes in God, they are probably using System I and abandoning much of the analytical thinking associated with System II – M. FARIAS [et al.], *Supernatural Belief Is Not Modulated by Intuitive Thinking Style or Cognitive Inhibition*, “Scientific Reports” 2017, n. 7/15100, p. 2. It turns out, however, that belief in the supernatural does not diminish System II, so believers use analytical thinking in the same way as non-believers – *ibidem*, p. 3. If intuitive and analytical thinking coexist, then science does not diminish the value of religion, and religion is not a substitute for science. These two realities complement rather than exclude each other, and therefore should be equally real.

objective pursuit of truth. Methodological naturalism would therefore separate the natural way of knowing the world from the natural need of a person to experience higher values and come to terms with death. It would not be “naturalism” because it would not recognize anything unnatural that should be separated from what is truly natural. If methodological naturalism is to be naturalism, then its identity is constituted in the context of transcendence, just as a good deed is constituted in the context of evil and hunger is constituted in the context of satiety. Following the principles of methodological naturalism is correct and at the same time it assumes the existence of a transcendent reality that is not taken into account.

2. PREMISE NUMBER 2: PANCOMPUTATIONALISM

In the natural sciences and other specific sciences, pancomputationalism is a practical assumption that is often disregarded for philosophical reasons. However, if it were to be adhered to and always taken into account, it would also indirectly indicate the existence of a spiritual sphere and life after death in a transcendent reality. Pancomputationalism means that everything in the universe is computational. It has two versions: unlimited and limited, with the difference that the limited version says that not all calculations are performed by every entity⁴, but every entity performs calculations. Is this really the case? It is possible to indicate the research practice of specific sciences that always use mathematics. But that’s not all. Pancomputationalism is a view about the nature of the universe. The foundation of natural sciences is the assumption that mathematics can be applied to everything in nature. This means that issues like religion and spirituality are also computational in the sense that they should be reducible to the natural sciences and mathematics. Such reductionism is effective in the light of methodological naturalism, but is it sufficient to understand these phenomena?

Time is a significant factor in making the response difficult. Reduction to mathematics seems insufficient, but perhaps only for now. Is there any certainty that, in a sufficiently long time, science will not be able to answer fundamental questions – e.g., about the meaning of life, the existence of life after death, spirituality, etc. – using mathematics? The “time” argument allows reductionism to be justified by the need to wait. The future is crucial, because it will prove that reducing things to mathematics, and everything to matter in general, made sense, even if it wasn’t understandable at the time. In order to justify the irreducibility of spirituality to matter and mathematics against the “time” argument, it would be necessary to demonstrate now that there is an irreducible sphere and that the distant future will not allow us to understand this supposed “irreducibility” of

⁴ M. SCHEUTZ, *When Physical Systems Realize Functions...*, “Minds and Machine” 1999, n. 9 (2), s. 191.

today. An additional difficulty is to show such a sphere without rejecting pancomputationalism. This isn't about returning to the "God of the gaps" argument, but about truly demonstrating the irreducibility of spirituality to matter and mathematics, drawing lines of demarcation between theology and the natural sciences, and showing what the natural sciences actually do when it comes to "spirituality" or rather, from a theological perspective, merely the correlates of spirituality. In the case of the human person, it's easy to confuse the correlates of spirituality with true spirituality due to the complexity of the human being, with soul and body forming a single substance. This substantial unity is fundamental, but if viewed from the perspective of the natural sciences, it's easy to confuse source with manifestation, action with existence.

Therefore, waiting for new discoveries in the future that will shed light on what is currently unknown can only make sense if the natural sciences are given theological authority. Pancomputationalism seems to be the correct approach to describing the universe, as research practice in the natural sciences also demonstrates. Pancomputationalism, as a philosophical assumption, is also confirmed by evidence in mathematics. I will analyze this in the next part.

3. PREMISE NUMBER 3: GÖDEL'S INCOMPLETENESS THEOREM

Gödel's incompleteness theorem, proven in 1931, has consequences that reach beyond mathematics into philosophy and theology. In general terms, it demonstrates that any system grounded in arithmetic (such as Peano's axioms) and internally consistent cannot be complete: there will always exist true propositions that cannot be derived within the system itself, requiring the introduction of a broader framework in which those propositions are included, and this process continues indefinitely.⁵ Proving the incompleteness theorem indirectly confirms pancomputationalism. If systems can always be mathematically improved, and if natural science has no better tool than mathematics, then the universe seems naturally mathematical. The incompleteness theorem is sometimes used to "prove" the existence of the soul, Transcendence, etc., indirectly. Science seems "insufficient" and doesn't explain everything. Hence, the desire to "close" the system, and Gödel's theorem seemingly justifies such closure and invokes God for help. Meanwhile, this theorem expands the scope of natural sciences, showing that the entire universe is subject to their interest until the end of its existence. Sometimes, however, the division into substance and accidents plays a special role, and one of these ontic compositions should not be treated interchangeably. Accidents are usually part of the universe, but substances do not necessarily belong to the natural order. To

⁵ K. GÖDEL, *Über formal unentscheidbare Sätze der Principia Mathematica und verwandter Systeme I*, "Monatshefte für Mathematik und Physik" 1931, n. 38, p. 187.

illustrate this idea, let's move on to the next part of the paper, where I discuss the problem of consciousness.

4. PREMISE NUMBER 4: THE NATURE OF CONSCIOUSNESS

The nature of consciousness is still unknown to the natural sciences. However, it may provide a premise for the irreducibility of spirituality to matter or of accidents to substance. Roger Penrose believes that consciousness has a non-computational nature but it is still part of the physical universe⁶. While I agree with this approach, the combination of non-computational nature and the physical nature of consciousness seems incompatible. The incompleteness theorem clearly indicates that the process of improving the theory will never end. If the material is the computable, then no incomputable realm in the physical universe exists. There is a path to proving an incomputable and still physical realm in the universe. It would be necessary to explain that the incompleteness theorem is time-limited. Thus, we say: As long as Gödel's theorem holds, the universe appears computable, but there will come a future moment when we discover all possible mathematics and use it to understand nature, and something will still remain that defies this description. This "something" must therefore be incomputable. Since we already believe such a moment will occur, we can already say that such an incomputable realm in the universe exists, and consciousness is an example of it. However, there is no theorem about Gödel's theorem showing that at some point in the future it (i.e., the incompleteness theorem) would be worthless, and therefore, within the exact sciences, it is impossible to prove the universe's incomputability while simultaneously declaring it physical. The absence of such a meta-theorem leads us to assume that incomputability is a step beyond the physical. This reasoning is the same as the "argument from time" presented above, with the difference that by applying the incompleteness theorem we reach the opposite conclusions. In this way – through studying the nature of consciousness – one can easily come to the belief that there is a sphere beyond the material and physical, an incalculable spiritual sphere.

5. IS NON-PHYSICALITY THE SAME AS SPIRITUALITY AND TRANSCENDENCE?

To defend Penrose's view, one can divide material reality into various "sub-realms". For example, distinguishing materiality from physicality, or physicality from energy, etc., allows us not to jump immediately to Transcendence. We could say

⁶ R. PENROSE, D.C. DENNETT, *Consciousness involves noncomputable ingredients* [in:] *The Third Culture: Beyond the Scientific Revolution*, ed. J. Brockman, New York 1995, p. 57-96.

that there are various subtle levels of reality, subsystems. Moreover, they somehow interconnect and yield new properties, perhaps expressed as consciousness. If we wait long enough, we will eventually discover these connections and understand consciousness as well. What kind of understanding will this be? If it is to be natural, it will probably be in the language of mathematics. Therefore, there's no need to talk about matter, physicality, or energy. The concepts of "mathematicality" or "computability" are sufficient to apply the same reasoning as with the incompleteness theorem and the "time" argument. If everything computational is not part of the Transcendent Reality, then if consciousness is not computational, then it must be spiritual. There is no equal sign between non-physicality and spirituality or Transcendence, but there is an equal sign between computation and matter understood as non-Transcendence, and between non-computation and spirituality and Transcendence.

DISCUSSION

Transcendence and eternal life are non-mathematical realms. They cannot be demonstrated "directly" from the natural sciences, but it is possible to show that representatives of these sciences make assumptions that are valid in themselves but do not follow directly from the natural sciences. Instead of claiming that consciousness is non-computational and physical, one could claim that consciousness is computational and physical, using the "time" argument: we may one day be able to understand consciousness mathematically, or perhaps never, but the mathematical structure describing consciousness already exists. However, Penrose already believes that consciousness is non-computational and physical. While I agree with the non-computational nature of consciousness, attributing it a physical origin simultaneously seems to reflect Penrose's personal views, as it is inconsistent with the incompleteness theorem.

It should not be said that the existence of Transcendence, eternal life, and so on, follows from natural science. However, natural science, with its research tools, especially mathematics as the basis for describing the universe, is not complete in describing phenomena that are correlates of what theologians call Transcendence. These correlates are particularly evident in humans. This is due to the substantial unity of the human person. A human person consists of a soul and a body, but has only one substantial form, i.e. a human being is one substance⁷. This means that the human person, in action, simultaneously expresses spirituality and corporeality, transcendence and physicality. When interpreting human action, one can easily

⁷ THOMAS AQUINAS, *Summa Theologiae*, I, q. 75, a. 4, <<https://www.corpusthomicum.org/iopera.html>> (available: 31.07.2025); cf. CONCILIUM VIENNENSIS, *Decretum I* [in:] *Decrees of the ecumenical councils*, ed. N.P. Tanner [et al.], London – Washington 1990.

attribute the entire action to one of the parts that constitute the entire substance. For example, looking at the brain's activity, one might see "consciousness", when in fact it is the result of the activity of the entire spiritual-corporeal substance, and the brain itself reveals the existence of consciousness. It is analogous to the leaves on a tree and the roots. The leaves are merely the result of the activity of the entire tree, and the source of the tree's existence are the roots, which are invisible to the naked eye. Penrose distinguished the "corporeal" and "spiritual" in consciousness but reduced the whole to physical states. This is reminiscent of property dualism: there is one substance with dual properties⁸. However, in the context of the incompleteness theorem, a single physical substance cannot possess both computational and noncomputational properties simultaneously.

We could say that where property dualism appears in the natural sciences, there is a sign of the need to extend science to include Transcendence, but methodological naturalism does not allow this, so a dual property of a physical substance is "created": on the one hand, this substance is still physical, and on the other, it has "properties" that transcend its physicality. This is a clever ploy to adhere to methodological naturalism while simultaneously taking advantage of the extension of science to include "Transcendence". It's like "god of the gaps" written with a lowercase letter – it comes out the same as referring to God, but this time the "god" is "dual properties". However, according to the incompleteness theorem, what property dualism considers to be this second, as if non-computational or spiritual, property is not such a property at all. The interpretation should move towards recognizing that this additional property is described by statements that are not yet part of a mathematically based theory within which they would be described by mathematics. Property dualism is fundamentally flawed from the point of view of the incompleteness theorem and will remain so until Gödel's theorem holds.

The natural sciences themselves lead to appeals to theological concepts. While avoiding the "God of the gaps" argument seems valid, at least from a historical perspective, eschewing it in the case of humans is only partially justified. The human person is a natural being, but even prominent representatives of the natural sciences employ quasi-theological arguments to explain, for example, the essence of consciousness. Appealing to non-computability or a non-algorithmic realm to explain the nature of phenomenal consciousness is inconsistent with the

⁸ Cf. J. SEARLE, *Why I am not a property dualist*, "Journal of Consciousness Studies" 2002, n. 9/12, p. 57-64. John Searle rejects property dualism because he believes consciousness is a function of the brain, not some new property. Searle's position is consistent with the incompleteness theorem because he consistently points to the brain as a physical organ that processes information (computation) and produces consciousness, thus using mathematics. This biological approach somewhat precludes the possibility of fully understanding consciousness, but it does not go beyond the physical side of nature. Cf. IDEM, *Theory of mind and Darwin's legacy*, "PNAS" 2013, n. 110, p. 10345, <<https://doi.org/10.1073/pnas.1301214110>>.

incompleteness theorem and indirectly indicates the need for a theological justification of the essence and existence of the human being, alongside explanations derived from the specific sciences. If theological arguments are to make sense, they must do so only because Transcendence exists.

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PRZESŁANKI Z NAUK PRZYRODNICZYCH ZA ISTNIENIEM ŻYCIA WIECZNEGO

Streszczenie: Artykuł zbiera i analizuje najbardziej podstawowe założenia obecne w naukach przyrodniczych, które można filozoficznie zinterpretować w kierunku istnienia Transcendencji. Chodzi o założenia tkwiące tam *implicite*, które działają niezależnie od tego, czy istnieje Transcendencja, czy nie, ale prowokują pytania, na które odpowiedzi mogą wskazywać, że istnienie Transcendencji jest o wiele bardziej prawdopodobne, niż się wydaje. Założenia te są zatem przesłankami do filozoficznych interpretacji, a nie częścią rozumowania stricte logicznego.

Słowa kluczowe: Transcendencja, nauki przyrodnicze, naturalizm metodologiczny, pan-komputacjonalizm, twierdzenie Gödla, świadomość.

