

Sławomir Zatwardnicki

Pontifical Faculty of Theology in Wrocław
zatwardnicki@gmail.com
ORCID: 0000-0001-7597-6604

Review: J.C. Lennox *Czy nauka pogrzebała Boga? Zderzenie światopoglądów (God's Undertaker: Has Science Buried God?)* translated by A. Gomola and G. Gomola, W drodze, Poznań 2018, pp. 448

I had known John C. Lennox earlier from conferences and debates available on YouTube. Thus, I accepted two positions of the mathematician and the philosopher of science published by the publishing house W drodze¹ with great joy. The practically untranslatable English title (*God's Undertaker. Has Science Buried God?*)² had to be changed in the Polish edition – the subtitle became the title and the subtitle indicated the basic idea of the book, very aptly identified by the Poznań publisher: *Czy nauka pogrzebała Boga? Zderzenie światopoglądów*. Indeed, the University of Oxford professor, both in the analysed publication and in his speeches, emphasizes that the real conflict exists not between science and religion, but “between two radically different world views: naturalism and theism. The inevitable collision occurs between them” (p. 53). He devotes a large part of the book to the justification of this key thesis. However, he does not stop at this observation, but asks: “Which worldview does science support: naturalism or theism?” (p. 56).

In the introduction Lennox raises problems in a slightly journalistic way, for example, when he recalls that the great figures of modern science (Bacon, Galileo, Kepler, Newton and Maxwell) believed in the rational Creator, and

¹ In addition to the item reviewed – see: *Bóg i Stephen Hawking. Czyj to w końcu projekt? (God and Stephen Hawking: Whose Design is it Anyway?)*, transl. A. Gomola, G. Gomola, Poznań 2017, p. 132.

² The publication in English was published already in 2009.

today laymen are told that science “pushed God to the corner, killed him and then buried, as it can explain everything to us nowadays” (p. 9). He immediately places the problem on the appropriate level, asking whether the naturalistic interpretation of reality dominant today is a philosophical belief arising from science or introduced to it on the principle of “faith similar to religious faith” (p. 11). Instead of answering the question of which position – theistic or atheistic – can be considered scientific, the author recommends checking “which worldview best corresponds to the results of scientific research” (p. 22).

In the first chapter, titled *Wojna światopoglądów* (War of worldviews), the reader receives a sort of evolving introduction with its basic thesis. The very attitude of believers towards non-believers among scientists contradicts the thesis that God would die and be buried by science. Even today, both are found among scientific figures, including Nobel prize winners. Naturalists argue that science has eliminated God, while theists say that it confirms their faith. The philosopher of science enters between both and recalls that “claims of scientists are not necessarily claims of science” (p. 32). Lennox offers a closer look at the forgotten roots of science based on faith in the rational Creator of the world, and then the alleged conflict between science and faith. He discusses the latter using two paradigmatic events: the case of Galileo and the debate between Thomas Huxley and Samuel Wilberforce (concerning the book titled *On the Origin of Species* by Charles Darwin). They have become a breeding ground for the still lingering myth of war between science and religion, which “has been heated up and shamelessly used as a weapon in another battle – the real one, between naturalism and theism” (p. 52).

The second chapter is an attempt to explain the not so easy, as it turns out, issue contained in the title: *Zakres i granice nauki* (Scope and limits of science). Science cannot be strictly defined, and its results do not have the degree of certainty that some people still expect from it. The ideal of an impartial, unconditioned and “Enlightened” scientist should be put to rest. If “for many people science is practically inextricably linked to the advancement of agnosticism or atheism on the basis of metaphysics,” “it is at best a symptom of a very serious prejudice, and at worst a categorical error” (pp. 65–66). In the case of numerous scientists, it turns out that the adopted a priori philosophical stance determines the essence of what they consider to be science. If “for extensive areas of science, philosophical positions of researchers have no meaning,” then it does not encompass “all science – and therein lies the problem” (p. 76). Granting science the exclusive right to truth is not “a scientific theorem, but a theorem about science, and therefore a meta-scientific assertion” (p. 85).

The third chapter titled *Redukcja, redukcja, redukcja...* (Reduction, reduction, reduction...) could be described as a warning against reductionism. The methodological reductionism adopted in science consists in seeking an explanation based on the process of reduction to simpler elements. However, finding the “theory of everything” – the final mathematical compression linking the basic influences of nature – proves impossible. The Austrian mathematician Kurt Gödel has proven that the desire to close the whole of mathematics in several theorems (the so-called Hilbert’s programme) is doomed to failure, and the inconsistency of mathematics cannot be proven without recourse to axioms of a higher order. At the same time, it shows the limits of epistemological reductionism – the whole will always be something larger than the sum of analysed parts, and thus phenomena of a higher level cannot be explained by descriptions of processes taking place at a lower level (and vice versa: laws of a higher order cannot be derived from a lower one). Unfortunately, scientists often make ontological reductions: by accepting a lower-order explanation, they limit the whole reality to this measure.

The answer to the question posed in the title of Chapter Four is very interesting: *Wszechświat zaprojektowany?* (Designed universe?) First of all, the very conviction about the intelligibility of the universe that can be read by human reason draws attention. It has “such a key significance for all our thinking that we are not able to question its validity without simultaneously assuming it,” and only theism, says Lennox, “can justify this faith in a coherent and rational manner, while naturalism is not capable of doing so” (p. 118). The Christian apologist argues here with Stephen Hawking, according to whom the law of nature could have brought the universe into existence. The law, as a way of acting, assumes the existence of a causal entity that acts in accordance with the order of law. In the history of thought, there have appeared conflicting concepts of the eternal world on the one hand and of creation with time on the other, but today science itself suggests some kind of beginning of the universe (the so-called standard model of the Big Bang). The reluctance towards the idea of the beginning turns out to be again a result of the adopted worldview. “The more we know about our Universe, the more credible” – the author argues – “becomes the hypothesis that there exists a creator deity who has designed the Universe for some purpose” (p. 139). Above all, the complex tuning of the fundamental interactions in the universe, without which it would be impossible to sustain life (the so-called anthropic principle), is astonishing. Richard Dawkins’ view that the anthropic principle and God are two competitive solutions to the mystery of the universe is of no use; on the contrary, this principle, Lennox retorts, “is not an explanation of the origin of life, but merely the result of

observations from which the need for such an explanation arises” (p. 149). Even the “multiverse” hypothesis, which Lennox describes as an “extreme violation of Occam’s razor,” does not seem rationally justified, and the existence of the multiverse would also not exclude God the Creator.

Lennox then moves on to the field of biology in the next chapter titled *Zaprojektowana biosfera?* (Designed biosphere?), which, according to many influential thinkers, would present the biggest number of arguments in favour of science burying God. The author advises to abandon the word “project” associated with Newton’s mechanistic universe: “In order to avoid potential misleading associations, it is better to talk about arguments indicating an intelligent origin of life than to discuss arguments suggesting a project” (pp. 176–177). As a result of the “either God or evolution” assumption, there is “a common feeling that the theory of evolution has wiped out God as something unnecessary and irrelevant, or even embarrassing” (p. 179). For this proposal to be true, two assumptions would have to be made at the same time: “the biological evolution cannot be linked with the existence of a Creator” and “the biological evolution explains the existence of the entire complexity of life” (p. 182). God and evolution, however, do not belong to the same category of explanations, and evolutionary algorithms are hardly thought to work without a plan. “Darwin’s Dangerous Idea” (Daniel Dennett’s term) can be reconciled with theism, given that biological evolution requires a tuned universe in order to occur at all. The most uncomfortable question turns out to be: “Can the mechanism of evolution carry all the burden imposed on it?” in other words: “Is Dawkins’ claim that natural selection explains not only all forms of life, but also its existence true?” (p. 195). Again, the philosopher of science points to the connection between the theory of evolution and a priori assumptions: “It is so closely related to naturalistic philosophy that it can be deduced from it directly and without the need to refer to other evidence” (p. 203).

Therefore, it is necessary to distinguish evolution from evolutionism, as Clive Staples Lewis, quoted by the author, has already pointed out. A look at the nature and scope of evolution is the content of Chapter Six titled *Natura i zakres ewolucji* (Nature and scope of evolution). Lennox first differentiates between disparate meanings of the term “evolution”: from common or used to describe artificial breeding selection through microevolution (modifications within species) to large-scale macro-evolutionary changes (formation of new species) or Neo-Darwinian molecular evolution (including the formation of a living cell from non-living material). The key problem posed by the scientist is the question of the boundaries of evolution. Extrapolation of microevolution observation results to macroevolution is risky. Mathematicians have added their

valuable contributions here: some calculations show that possible accumulations of micro-mutations, which would supposedly result in macro-evolutionary changes, would require longer time than evolutionary processes could have had at their disposal. Similarly, the fossil record, which was expected to be a crucial proof of evolution, turns out to be, according to the palaeontologist David Raup – “surprisingly uneven and intermittent, and ironically, we have even fewer examples of evolutionary changes today than we did in Darwin’s day” (p. 237). Molecular biology reveals the world of living organisms with their unimaginable complexity and regulatory abilities that bear the marks of a deliberately acting intelligence.

In the seventh chapter titled *Pochodzenie życia* (Origin of life), Lennox emphasizes the very existence of life, without which one would not be able to question evolution at all. The author considers biogenesis to be an even more dangerous challenge for naturalism than the question of evolution raised earlier. Before a researcher of the micro-world of cells, a miniature molecular factory is revealed, characterized by the so-called irreducible complexity, i.e. such a degree of cooperation of individual elements of the system that a deduction of any of them would prevent the functioning of the whole. The “machinery” constructed in this way could not, as it seems, be created in an evolutionary way; to some, it is a direct proof of planning by some intelligence. Lennox then refers to various theories about the origin of life, showing their improbability in the light of the latest research. The first of them traces the “bricks of life” in amino acids, which make up proteins that are the building blocks of molecular machines. If the very formation of amino acids suggests a certain “tuning” of the conditions allowing their creation, the formation of the protein structure characterized by a high degree of specialization seems even more problematic – its construction “requires the intelligence of an architect and the skill of a builder” (p. 269). Here again, mathematical calculations make it impossible to accept an accidental origin on the basis of random probability alone. “Blind luck is not enough, and there is a fairly common conviction among scientists, whether they are naturalists or not” (p. 271).

Kod genetyczny i jego pochodzenie (Genetic code and its origin) is the title of Chapter Eight. In search of solving the mystery of life, Lennox leads the reader to an even deeper level – to a DNA molecule in the nucleus, which stores the instructions necessary to build proteins: “Just like a computer hard drive, DNA contains a database of information and a program to create a specific product. Each of the 10 to 100 trillion cells of the human body contains a database larger than *Encyclopaedia Britannica*” (p. 282). The cell itself is a kind of information processing machine. The author gives quite a complicated account of what

“deoxyribonucleic acid” is and how DNA gives rise to proteins, which would not be possible if a series of proteins had not existed before; this means that DNA and protein cannot be confused with the first representatives of life – rather, DNA is dependent on already existing life. The mystery again escapes comprehension (what was first: an egg or a hen?). Then comes the time to deal with a few myths: one claiming that everything is written in genes, and another which draws conclusions about human nature from the resemblance of human and chimpanzee genes. It turns out that “a small difference in the number of genes may be responsible for very large disparities in phenotype (a set of observable traits) of an organism” (p. 294). Perhaps what strikes evolution the hardest is the discovery that cells protect themselves against accidental genetic change through certain systems of checking and repairing, and that the genetic code itself has not changed in the last two billion years; the same “genetic dictionary” exists from bacteria to humans.

Attempts to reduce the puzzle to Darwin’s solution do not seem convincing, also from the point of view of mathematics. The author devotes his attention to this issue in Chapter Nine titled *Materia informacji* (Matter of information). According to the algorithmic information theory, compression of a sequence of symbols to a shorter form of the algorithm generating such a sequence is possible, but not in the situation of random sequences, inevitably complex; in turn, we deal with such a sequence in the case of information contained in the human genome. As it turns out, neither coincidence nor necessity as a result of known laws of nature cause the genome. Thus, Lennox asks “if there is any other possibility,” and answers: “It is provision of information” (p. 327). He assumes here that if a mathematician is unable to prove that something is possible, he or she may try the opposite way – proving that something is impossible. For example: it can be proven that the construction of *perpetuum mobile* is not feasible when one begins from the principle of energy conservation. Analogously, in regard to the origin of genetic information, it should be demonstrated that “all explanations of biogenesis that do not take into account the supply of information from some external and intelligent source are unfounded” (p. 331). To formulate the problem in a slightly different way: it would be necessary to prove a kind of “right of information preservation.” If information, similarly to energy, has to be preserved, then “in order to start a life, it is necessary to introduce information from the outside” (p. 338).

From this perspective, in the chapter called *Matpia maszyna* (Monkey machine) Lennox analyses one of the attempts to simulate the genesis of oriented DNA complexity, allegedly obtained only through untargeted processes of nature. This concerns the famous analogy quoted less and less frequently:

If monkeys hit the typing keys completely accidentally and did it long enough, equipped with unlimited amount of paper and never got tired, they would eventually type on the machine, only by chance, one of Shakespeare's sonnets, or maybe even one of his dramas as a whole (p. 340).

From the point of view of mathematics, it is obvious that even the age of the universe itself accepted today (not to mention the space needed to accommodate monkeys, typewriters or rubbish bins!) would be too short for such an undertaking. Therefore, the majority of researchers is convinced that "processes based only on chance cannot explain the origin of complex information-filled systems" (p. 342). Even for the leading evolutionary scholar Dawkins, it became clear that Darwinism could not work as a chance theory. Therefore, the author of *The Blind Watchmaker* proposed something similar to the law of nature: only effects corresponding to the expected outcome would pass to the next stage of the evolutionary process. Returning to the monkeys: a randomly hit letter would be compared (by whom?!) with the target sentence and kept if it corresponded to the target phrase.

Dawkins tells us that evolution is unreasonable. So how should we then understand his introduction of two mechanisms, each of which is a clear proof of the influence of some rational mind: a mechanism comparing every attempt with the target sentence and a mechanism preserving a successful attempt? (pp. 348–349).

There is a vicious circle here: the information that evolutionary mechanisms were to produce would have already needed to be hidden in the body in order to stimulate the process. It turns out that all simulations of evolution prove it difficult to recognize any progress in evolution without "embedding" the expected solution in it.

In the penultimate chapter titled *Pochodzenie informacji* (Origin of information), considering that DNA has characteristics which indicate man-made texts or computer languages, the author postulates to take "into account the fundamental role of information and intelligence in the existence of the Universe and life – they are not the end products of unguided natural processes initiated by energy and matter, but have been present in these processes from the very beginning" (p. 369). The apologist argues with Dawkins' argument that God himself, capable of designing a complex world, would need to be even more complex, and therefore would also have to be explained (in other words: he does not explain the world, as he is even more improbable than what he would

need to explain). At the root of this view is the assumption that the only kind of explanation goes along the line from simple to more complex. This is contradictory to common sense (the author of *The God Delusion* is more complex than the book which he wrote) and science, the theories of which are usually more complicated than events explained by it; what had been thought to be simple (e.g. atoms) turned out to be extremely complicated. A theory characterized not so much by simplicity as by explanatory power would be legitimate.

If we claim that God created the universe, we must ask who created God – this is a variation of Dawkins' earlier argument. It does not prevent the retired professor from accepting the eternal existence of matter and energy, as the Greeks did. The Hebrew tradition, older than the Ionian philosophy of nature, shows the beginning of the universe created by the eternal God. If the ultimate fact for an atheist is the world, for a theist it would then be God. However, the philosopher of science does not allow us to stop at such a statement; following Socrates' advice, he orders us to follow the evidence: "In which direction does science point? Towards the existence of matter before mind or Mind before matter?" (p. 389). It is not about resorting to "God of the gaps" patching the holes in knowledge, because this gap results precisely from the scientific knowledge! The knowledge about the nature of biological information

combined with the knowledge that the only recognized sources of information are those characterized by intelligence, as well as the fact that chance and necessity are not capable of generating this kind of complex and oriented information with which we deal in biology. All these taken together indicate the project as the best explanation for the existence of information-rich DNA (pp. 394–395).

The need for information and creative power corresponds with the Christian faith in the Logos: "in the beginning was the Word" and "through him all things were made" (J 1, 1:3).

Czy cuda są pogwałceniem praw przyrody? Dziedzictwo Hume'a (Are miracles a violation of the laws of nature? Hume's legacy) is the title of the last of the twelve chapters of the book. Lennox focuses on David Hume's famous accusation that possible miracles would be a violation of the laws of nature. If, in Hume's opinion, the very uniformity of the laws of nature and human experience speak against miraculous events, then the Scottish philosopher's stance can be seen as intrinsically contradictory. On the one hand, it contradicts the possibility of proving the uniformity of the laws of nature and the existence of the necessary causality; on the other, it invokes the invariability of nature in order to reject miracles. On the one hand, he recognizes that a miracle is something we have never experienced

before (otherwise it would not be a miracle), on the other hand, he does not have access to all experiences in order to state it: “The uniformity of experience is one thing, the absolute uniformity is something completely different” (p. 409). He also perceives all reports of miracles as false because he assumed in advance that “no testimony is sufficient to prove the authenticity of a miracle unless it is of the kind whose falsity would be a greater miracle than the fact to be proven on its basis” (p. 423). Since for him the proof of what is regularly repeated weighs more than the evidence of what is unique, “he has already delivered a verdict as a judge against miracles and has not even begun the trial!” (p. 424). The philosopher “simply assumes what he desires to prove, namely that nature is homogenous and that no miracles have ever taken place. There is a vicious circle in his reasoning” (p. 422).

In fact, belief in miracles and in the laws of nature are not mutually exclusive possibilities, as “new atheists” would like. Modern scientists easily reject the miracles of the New Testament, treating them as an expression of faith inherent in primitive pre-scientific culture. However, also for inspired authors, to recognize something as a miraculous event, it was necessary to know the common regularity, from which the miracle was an exception. For instance, Zachariah, although not an atheist, “politely but firmly expressed his doubt” in the angelic news because “the birth of a descendant in their time would contradict everything they knew about the laws of nature” (p. 416). Furthermore, the first voices of opposition to the Resurrection news did not come from non-believers, but from high priests. The second argument raised by the scientific community is the conviction that learning about the laws of nature makes it impossible to believe in miracles. In turn, a theist, recognizing the natural laws, allows for supernatural interventions of God that do not break these laws at all. As a matter of fact, “there are no scientific, fundamental objections against the existence of miracles” (p. 429). Here, Lennox invokes Lewis’ position:

If God annihilates, creates or alters a fragment of matter, he shapes a new situation. All nature immediately embraces this new situation, accepts it and adapts all other events to it. The situation adapts to all laws. If God miraculously creates a sperm in a virgin’s body, he does not destroy any laws as a consequence! They start working at once. Nature is ready – pregnancy with all its natural consequences follows and nine months later a child is born (pp. 419–420).

Finally, we return to the worldview: the real problem with miracles “is that they threaten the foundations of the naturalistic view of the world.” Nature is everything, and this “axiom is a conviction, not a consequence of scientific research” (p. 428).

The professor concludes in the epilogue: “Science has not buried God at all; on the contrary, the results of scientific research not only point to God, but also science itself is possible and credible only through His existence” (pp. 436–437). One has to choose: “Either human intelligence ultimately owes its origin to mindless matter, or there is a Creator” (p. 437). Although science directs towards a Mind through which it can be cultivated, it does not respond to the purpose of human existence. “Real science does not feel at all embarrassed by the impossibility of defining this goal and simply admits that it goes beyond its competence,” and therefore “it would be a serious methodological error to look only at the components of the Universe – matter, structures and processes – in order to establish its objective and answer the question why we are here” (pp. 432–433). The final answer must come from outside the universe. The theological explanation of the world’s intelligence points to the Divine Logos underlying it. Christians believe that He is a Person, and thus can communicate with man not only scientifically but directly. This opens up a new space “beyond the boundaries of science, but not beyond the boundaries of reason” (epilogue title).

* * *

At the end, the reader receives a rich index of names. These eight two-column pages written in a small font reflect the style of Lennox, whose publication is full of quotes and references. The majority of chapters start from a juxtaposition of two-three mottos presenting a “clash of worldviews.” Then, a surname follows a surname, an authority stands against another authority, and Nobel Prize winners are divided into theists and atheists. At the same time, the Christian apologist is extremely honest in quoting and tries to invoke longer fragments rather than treat polemicists selectively. The book gains a lot from all of this, although its volume dangerously expands. It seems that it was originally intended to be a much shorter position. This opinion is prompted by relatively numerous popularization interludes and illustrations intended to make it easier for a less proficient reader to get an idea of the subject. Anecdotes about the Ford manufacturer (cf. e.g. pp. 88, 94, 101) or aunt Matilda’s baked goods (cf. e.g. pp. 80–81, 84, 86, 128) get lost somewhere in the expanding content. It looks as if the author could not slow down and had to report literally everything he had read himself. He did not, however, manage to avoid certain repetitions.

To sum up Lennox’s style, one would need to label this book as popular science. There are fragments that diverge into the scientific nomenclature, so that they become incomprehensible without prior knowledge. However, he includes many “real life” illustrations or metaphors “for mortals” (cf. e.g. pp. 130–131,

142, 249–250, 270), journalistic insertions and colloquialisms (cf. e.g. pp. 23, 128, 161, 196), apologetic “trips,” and even military nomenclature (cf. e.g. p. 167). The whole is complemented by elegant malice, characteristic of debates between religious critics and defenders of faith (cf. e.g. pp. 24, 122, 382), and a pinch of humour, which the reader would not expect from a mathematician (cf. pp. 198, 258, 338). Questions that author had to ask himself also arise: how to pass elite knowledge to the group of “uninitiated” and avoid its trivialization? How to practice apologia in the era of ping-pong debates?

The most serious shortcomings of the publication include the lack of bibliography. This sin of negligence committed by the publisher will be hard to forgive! It is a pity because Lennox’s book can replace a scientific query – only that the recipient will now have to browse the footnotes in search of a good starting point for further in-depth research.

It is not an exaggeration to state that both the reader who is just beginning his or her adventure in the subject of the science-faith relationship and the more oriented one will benefit from this position. The popularizing style did not come at the expense of content. For fundamental theologians and everyone interested in the philosophy or theology of science, Lennox’s work becomes mandatory reading.