HUNGARIAN PHILOSOPHICAL REVIEW

VOL. 67. (2023/2)

The Journal of the Philosophical Committee of the Hungarian Academy of Sciences

Teleology: Old Wine in New Skins

Edited by László Bernáth — Dániel Kodaj

Contents

Teleology: Old Wine in New Skins (László Bernáth – Dániel Kodaj)	5
FOCUS	
MICHAEL RUSE: Darwin and Design	7
GERGELY KERTÉSZ: On the Status of Teleological Discourse.	
A Confusing Fiction or a Description of Reality?	43
Erik Åkerlund: Models of Finality: Aristotle, Buridan, and Averroes	67
GYULA KLIMA: Teleology, Intentionality, Naturalism	86
Dániel Kodaj: The Metaphysics of Spooky Teleology	100
Mohsen Moghri: An Axiological Ultimate Explanation for Existence	118
László Bernáth: The Aporia of Categorical Obligations and	
an Augustinian Teleological Way Out of It	139
FERENC HUORANSZKI: Intentional Actions and Final Causes	152
VARIA	
AYUMU TAMURA: The Role of Experience in Descartes' Metaphysics. Analyzing the Difference Between <i>Intuitus</i> , <i>Intelligentia</i> , and <i>Experientia</i>	179
ATTILA HANGAI: What is Rational Reconstruction in the History	
of Philosophy? A Reply to Live Reconstructivists	196
Contributors	211
Summaries	213

An Axiological Ultimate Explanation for Existence*

Why is there anything concrete at all, instead of there being nothing concrete? Leibniz (1714/1989) devised this puzzle (hereafter "the Why question") as a way to uncover what constitutes the nature of our concrete world.¹ Leibniz's own suggestion, after elaborating on the Why question, was that our concrete world is the best possible world and its Goodness is the reason it exists. Following Leibniz, Kuhn (2007) illuminates how an explanation for all concrete existence helps one discover the fundamental feature of our universe, and Holt (2012) adds that only by asking why there is a concrete world can one know why the universe behaves in a certain way. Further, Nozick (1981) intensifies the latter point by maintaining that without an answer to the Why question, one might not be able to answer any other question at all.

One might attempt to solve Leibniz's puzzle using one's suggested answer to similar fundamental questions. But many such responses fail to solve the *ultimate* Why question. Consider for example the question of why there is this universe – a universe devoid of seemingly simple laws that lead to the existence of living beings like us – rather than another universe. The benevolent omnipotent God of Theism or the fundamental Laws of Nature might answer the question of why our universe is fine-tuned for life, but the question still remains as to why the fine-tuner of our universe itself or himself exists. In this respect, Leibniz emphasized that a proper answer to the Why question must have a stopping point; it must be ultimate. He sought "a sufficient reason that has no need of any further reason – a 'Because' that doesn't throw up a further 'Why?'..." (Leibniz 1714/1989). Note that while an explanation for the existence of all concrete things might be complete by leaving no concrete thing unexplained, it might fail to be ultimate: The question may still remain unanswered of why the explana-

^{*} Thanks to the anonymous referees of this journal, the audience at a February 2021 online seminar at the Center for Religious Studies at the CEU, and helpful comments from Daniel Kodaj on the earlier drafts of this article. This work was supported by the UKRI-Horizon Europe Guarantee [grant reference: EP/X022633/1].

¹ I take concreteness, here, in terms of capability to involve in an efficient causal relation.

tion for the existence of every concrete thing or for the whole of them obtains. When an explanation for something is both complete and ultimate, everything is explained concerning that thing and no brute fact remains. Swinburne (2004) calls such an explanation an "Absolute Explanation" and suggests that there cannot be one such explanation for the existence of our world. Swinburne argues that God created the whole world. However, he accepts God not as the ultimate explanation, but as "the ultimate brute fact."

But isn't there a way to escape all existence from being ultimately brute? The existence of our world seems far away from being logically necessary; neither does it seem to be ultimately explainable using logically necessary truths (cf. Rowe 1970, van Inwagen 1983). An alternative is, nevertheless, to explain concrete existence through beings or facts that are metaphysically necessary; they bear their explanation within the essences involved. Accordingly, many scholars suggest that the existence of God or obtaining of the Laws of Nature are metaphysically necessary and ultimately explain all concrete existence (cf. Hawking & Mlodinow 2010, Loewer 2012, Lange 2014, O'Connor, 2008, Pruss, 2006). In disagreement, however, some contend that metaphysically necessary facts, even some logical or mathematical truths, may further be explained (Van Cleve 2018, Vintidals 2018). It seems that we are still entitled to ask why some metaphysically necessary facts obtain and not others. If metaphysical necessities are apt for further explanation, many ambitions, in theology and philosophy of science, to reach an ultimate explanation for the existing world are not fulfilled.

As an explanation that could block the chain of further explanations, one might suggest that some fact literally explains itself by being an instance of itself. For example, Nozick (1981) argues that the Principle of Fecundity, the principle that states "All possibilities obtain," is an instance of itself; the principle of Fecundity subsumes itself because the obtaining of that principle itself is a possibility. While the latter kind of self-explanation is generally regarded as dubious, I develop an alternative self-explanatory account that may succeed in providing an ultimate explanation for existence. Section 1 shows that a viable explanation for all concrete existence should proceed not causally but teleologically, and appealing to abstract facts of value provides a suitable candidate. In Section 2, I elaborate on the conditions that require an ultimate explanation and on what might constitute such an explanation. In section 3, a variant of self-explanation, namely self-subsumption – obtaining of a fact literally in virtue of itself – is introduced with an exploration of the main objections to it. Finally, in chapter 4, I construct a self-subsuming ultimate explanation that avoids the latter objections.

² Although other terms are used for the necessity of Laws of Nature, such as Nomological or Natural necessity, this kind of necessity can be regarded as a metaphysical necessity. For, Laws, on this view, are certain generalizations among concrete entities whose necessity follows from the natures of those entities (Bird 2007).

120 Focus

I. EXPLAINING CONCRETE EXISTENCE BY ABSTRACT FACTS OF VALUE

There seems to be no logical contradiction in supposing that concrete things in the world vanish altogether. In other words, it seems that the non-existence of the whole world is logically possible. For one thing, even the advocates of the Ontological Argument have retreated from insisting that a *logically* necessary being exists. Besides, arguments for the logical necessity of existence have not been very convincing. Therefore, one may sensibly follow Leibniz in asking: Why is there something concrete, instead of there being nothing at all?

Despite this, many scholars have argued that Leibniz's question is meaningless or without an answer. Most of them object that every concrete thing has a causal explanation inside the world, and there cannot possibly be something that causes the whole world to exist. Every possible explanation for the existence of concrete things, they say, would be part of the whole world; that explanation thus needs another explanation that would itself be part of the whole world again, *ad infinitum*. Following Hume, most critics conclude that the existence of our world does not need any explanation whatsoever.

But isn't it mysterious that the world behaves in such an orderly way? Further, why isn't there a different order of concrete things in the world? More importantly, there might have been no order, or worse, nothing instead. If it is rational to ask why some or other concrete thing exists, why not demand an explanation for the whole of existence? To be sure, it is logically possible that the world's existence is a brute fact, having no explanation. However, as long as no evidence is provided that the world's existence has no explanation, one should suppose there is an explanation. For, it is widely argued among philosophers that everything must have an explanation unless some evidence shows why there cannot be an explanation.

Yet, it is a mistake to restrict all explanations to causal effects. This restriction stems from the traditional idea that a cause must be homogeneous with its effect. However, just as matter can turn into energy and living organisms can originate from inorganic components, so too might concrete realities originate from non-concrete ones. We seem to have not enough reason in claiming: All explanations of concrete things need earlier concrete things as their causes. The source of the whole existing world might fall outside the category of concrete existence. An abstract fact might explain why our world exists.

The latter kind of explanation can be interpreted teleologically, as well. If our world has a special feature, such as extreme simplicity or abundance, it is rational to believe that the world is actual because it has such a unique feature. It is extremely unlikely that a special feature in our world arises as a matter of happenstance. Yet, that feature does not need to be instantiated in a previously existing thing; neither does it need a preceding agent to make it actual. Instead, as Platonists maintain, having some abstract feature (a Form) might have led

something possible into being actual. Leibniz asserts, in this respect: "[F]rom the very fact that there exists something rather than nothing, it follows that in possible things, or in possibility or essence itself, there is a certain need of existence..." (Leibniz 1898. 340). Here, the abstract feature in possibility or essence is not the efficient cause, but the final cause of existence: Because of having some special features, certain possibilities seek to be actual.

It may still seem very odd that abstract facts explain concrete existence, but that kind of explanation is in fact what many theists and scientists use as well, most of them without even knowing it. Stephen Hawking (2010), for example, takes the highest degree of symmetry involved in the fundamental laws of quantum as an indication that those laws must have governed the world. Here, the reason why our world exists is supposed to be the abstract fact that its fundamental laws are super-symmetric. As an example among theists, William Lane Craig (2008) argues that God's explanation resides in his own nature. He considers God as self-caused but not in the sense that he is the efficient cause of himself. Instead, the essence of God is, according to him, so perfect that God requires no efficient cause to exist. That is God's essence that requires him to exist. But is this non-efficient cause, this perfection in God's essence, not an abstract factor that explains why God exists? Here, as well as in many forms of the Ontological Argument, what really explains God's concrete existence is an abstract fact: That the essence of God is maximally great, good, or valuable. Both Hawking and Craig use the same force that they exclude from abstract things in order to explain concrete existence.

The term, Axiological explanation, is what John Leslie (1979) and Nicholas Rescher (1984) use when the value of something explains its existence. They both insist that the Axiological explanation does not require the mediatory act of an agent, such as God. If value alone can be said to explain why God exists, why not use value instead to explain the whole concrete world without entering God? Leslie and Rescher follow Plato's footsteps in viewing the Form of the Good as what gives existence to the world. Leslie goes so far as to use the term, God, for the creative force of value. Some contemporary theists also explicitly express a similar approach. Paul Tillich (1951), for example, maintains: God "is not a being" but is instead "the power of being", "the creative ground of existence." While there is some power inside all valuable possible worlds to exist, a world with the most value exceeds others in its power and becomes actual.

The teleology involved here may well be termed naturalistic: a goal-directedness without an agent's purpose. While a purpose must be somebody's purpose, a value can be totally impersonal. Here is some evidence: First, the real, inherent value of something can be underestimated or overestimated. Second, just as a lawful world ripe for the existence of free intelligent beings is really better than there being nothing, nothingness would be really better than a world full of chaos and agony. In the case of nothingness, there would be no agent to

determine a value according to some purpose. So, the value of a world may, in itself and without being the value for someone or something, be the sufficient reason for that world's existence. Rescher describes this naturalistic teleology as follows: "Reality is inherently disvalue-phobic – or value-tropic if you prefer. But this transpires only as a matter of a strictly natural process: preference and purpose have nothing to do with it. The "aversion" of reality to disvalue is as natural as the "aversion" of one magnetic pole to another of the same polarity" (Rescher 2010. 72).³

It is worth mentioning here that there is no agreement on the features that make a world intrinsically valuable. Leslie's focal point is on Ethical value, though he uses that term in a much wider sense than just the moral actions of agents; it includes even the world's lawfulness. Rescher, in contrast, focuses on Cosmic values of order, simplicity, and variety. Nevertheless, he argues that the combination of Cosmic values is optimized only if there is an evolutionary process leading to the emergence and welfare of intelligent beings. In spite of these differences, neither Leslie nor Rescher appeals to an agent's purpose to explain why valuable things are actual.

Even so, the Axiological explanation has been subject to many criticisms. If value rules over the world, shouldn't we expect that the world would be full of prosperity and happiness? Why then is instead evil everywhere? One might appeal here to a theistic response to the Problem of Evil: Valuable things are often in contrast with each other; it is impossible to have all good things in the world. In that case, we should at least expect that our world would be the most valuable one, the best of all possible worlds. On the contrary, however, the claim that our world is the best possible world has not convinced many philosophers (Mackie 1982, Parfit 1998), not even some theists (Plantinga 2011). Besides, there are some difficulties in determining the best possible world. As mentioned above, the overall value of a world is achieved through a combination of several features, such as simplicity and variety. In that scenario, more than one combination may lead to the most valuable outcome. Some difficulties as well arise about supposing that there is one highest level of value for a world. The overall value of a world may simply be multiplied.

Moreover, what evidence do we have that value governs the world? The world's lawfulness, having a good combination of simplicity and complexity, and

³ An anonymous referee of this article argues that attributing a creative force to an ontological realm of value, devoid of any intention or conscious purpose, is still highly implausible. However, the idea has a strong historical precedence, especially in Platonic and Neoplatonic traditions. Additionally, there has been a recent revival of Aristotelian Metaphysics in analytic philosophy to explore the nature and principles of non-causal explanations, using constitutive parts or features of existing things, among which their values might be included. The latter kind of explanation is the subject of grounding theories, and the author is currently working on developing the Axiological explanation in conjunction with those theories.

fine-tuning for intelligent life may provide some evidence that value rules over our world. However, these are claimed to provide the same amount of evidence for other hypotheses as well. For example, a Multiverse might exist in which each world is governed by a different natural law. This makes the existence of every universe the least arbitrary (Unger 1984). In the latter hypothesis, it is not very surprising that one among those universes has the fundamental law of our universe and leads to intelligent life.

Despite these difficulties, one feature of the Axiological explanation may provide a decisive advantage over other alternative explanations. Both Leslie and Rescher argue that only value can provide an ultimate explanation for existence, an explanation that does not provoke a further why question. If one invokes God's creative act to explain why the world exists, another may further explain why God exists. Similarly, the fundamental laws of the universe (or the Multiverse) may further be explained. On the other hand, facts of value are self-explanatory, in the sense that it lies in the nature of good things that they are valuable. To ask why something has value is like asking why redness is nearer to being purple than to being blue. Not even Omnipotence could "give" intrinsic worth to anything, so Leslie (2014) points out. Facts of value are synthetically, metaphysically necessary. Therefore, no further explanation is needed, according to the advocates of the Axiological explanation, for why value obtains. They claim that, in explaining existence, only facts of value can escape the explanatory regress. Thus, the higher explanatory power of the Axiological explanation indicates, for them, that it is more likely to be true.

Nevertheless, here comes a bigger problem: Many scholars argue that God or the Laws of Nature, too, are metaphysically necessary. They claim that it lies in the nature of concrete objects that they behave lawfully, or in the nature of God that He exists. Considering that, there seems to be no privilege in explaining existence through facts of value. For, no extra amount of explanatory power has been provided through the Axiological explanation. Even more, we saw in the case of a metaphysically necessary God that it makes sense to ask: Why is God metaphysically necessary? Why does the essence of God explain His existence? In effect, there are attempts to place the necessity of God in facts of value. Similarly, some advocates of the metaphysical necessity of natural laws demand an explanation for why those necessities obtain (cf. Lowever 2012) If the metaphysical necessity of God or the Laws of Nature needs to be explained by some or other fact, one might still wonder why that which has maximal value necessarily exists. Some attempts to place the necessity of facts of value in God further confirms the latter point (cf. Craig 2008, Murphy 2011).

In contrast to all of these attempts, many deny that metaphysical necessities could have further explanations. John Heil (2018), for example, asserts: There might be logically possible things that are not really possible; it is the nature of reality that determines what is really possible. Metaphysical necessities, ac-

124 Focus

cording to him, could not be otherwise because other alternatives are not really possible; therefore, they are not apt for an explanation, and neither could one coherently consider them as brute facts.

For sure, some fact's being metaphysically necessary means that no alternative fact is really possible. Yet, it does not entail that no other fact forces the first fact to obtain. Physical objects have no alternative other than to attract each other, but there are still some facts, the fundamental Laws of Nature, that explain why objects attract each other. As another example, some theists argue, created things exist with a metaphysical necessity. Still, it is a metaphysically necessary creator that explains why created things necessarily exist. In an explanation, in fact, we are not trying to show only why something is not otherwise, but also why it is as it is (cf. Murphy 2011) Therefore, metaphysical necessities, such as facts of value, might have obtained by virtue of an explanation.⁴

II. NECESSITY AS AN ULTIMATE EXPLANATION

To elucidate what counts as an ultimate explanation for all concrete existence, Leibniz further maintained that the only viable answer to the Why question is one that involves something self-explanatory "carrying the reason for its existence within itself" (Leibniz 1714/1989). He suggested a necessary being for that purpose. However, it is generally accepted now, even by some proponents of the Ontological Argument (for example, Plantinga 1977), that it is not clear at all that a necessary being is really possible. Following Hume, many contemporary thinkers accept that it is *logically* possible that nothing existed. Moreover, some philosophers argue that explaining the existence of our world through a logically necessary being results in necessitarianism, which contradicts the conviction that the world is contingent (Rowe 1970, van Inwagen 1983). As a new challenge to ultimately explaining all concrete existence through logical or mathematical necessities, Van Cleve (2018) and Vintidals (2018) argue that the obtaining of necessities may further be explained. Their main purpose is to show that it is possible to accept some necessities as brute facts and leave them unexplained. By arguing that necessities may be apt for further explanation, their argument,

⁴ Not only metaphysical necessities but also some mathematical necessities are viewed as apt for further explanation. There is a distinction, among Mathematicians, between proofs that only prove and proofs that explain (cf. Mancosu 2001), and Lange (2014) argues that such a distinction is not a mere subjective distinction; it denotes something real. When mathematicians use Peano axioms to prove 2+2=4, they consider those axioms as some reality in the world that explains why such a necessary fact obtains. To see that the relationship here is not a mere entailment, but an explanation, one should note that the reverse does not work: 2+2=4 cannot prove Peano axioms. A necessary fact is therefore explained by another necessary fact.

at the same time, cast further doubt on there being an ultimate explanation for all concrete existence in the domain of logical necessities.⁵

What about explaining concrete existence through metaphysical necessities? Can those alternative necessities provide ultimate explanations? Fine (2012) defines metaphysical necessity as the obtaining of something in virtue of its own essence or nature. One can accordingly interpret metaphysical necessity in terms of ontological independence: A metaphysically necessary being, for example, would rely for its existence not on any other being, but on its own nature. Furthermore, Loewer (2012) defines metaphysical explanation of something in terms of its being grounded by more fundamental facts, whereas scientific explanations are generally considered in terms of prior events or facts. In these senses, if one explains the behaviour of concrete objects by natural laws but maintains that those laws are explained by virtue of the objects' essence, one must consider natural laws as metaphysically necessary.⁶ God is also considered traditionally as a metaphysically necessary being. Craig (2008) explicates that when theists speak about a self-caused God, they mean not that God would exist prior to himself to cause himself, but that his essence (being perfectly good) is why he exists. Among these accounts of metaphysical necessity, one may regard a being, a law, or a fact as that which could block the chain of explanation by explaining itself. This sort of self-explanation must, so Van Cleve (2018) argues, be considered as an intrinsic, non-relational explanation, not as the case that some fact would literally explain its own obtaining.

Nonetheless, one should note, first of all, that the existence of things may primarily or ultimately be a brute fact. As Parfit (1998) contends, it is not impossible at all that our world exists as a matter of happenstance and, even if our world has an explanation for its existence, that explanation might have obtained without any further explanation. A world must, as a matter of logic, obtain somehow with or without concrete existing things, and it is possible that it contains concrete existence without any explanation. While many followers of Russell (1948) consider the existence of our world to be a brute fact, Swinburne (2004) and Carroll (2018) posit that the ultimate fact that explains all concrete existence is inexplicable. Meanwhile, Swinburne accepts God as the ultimate brute fact that is himself the explanation for all concrete existence. Similarly, Carroll argues that the highest-level scientific law or principle that explains other lower-level natural laws is without any further explanation, though he accepts that all concrete existence can be explained by natural laws.

⁵ There is a distinction between epistemic and ontological brute facts (Barnes 1994). We are concerned here with the metaphysical and ontological aspects of explanation, not merely the ability of our cognitive faculties to *find* or to *know* an explanation.

⁶ Lange (2014) calls natural laws "physically", "naturally", or "nomologically" necessary. He uses the term "metaphysical necessity" differently in terms of non-contingency and considers it in a group with logical and mathematical necessity.

Second, contrary to what Heil (2018) argues, one might consider even the obtaining of metaphysical necessities as subject to further explanation. Heil maintains that there might be logically possible things that are not really possible. According to him, the nature of reality determines what is really possible. Heil denies therefore that metaphysical necessities need further explanation. Since he regards metaphysical necessities as not apt for an explanation, he also denies that one could coherently consider metaphysical necessities as brute facts. In contrast, I attempt to defend Rescher (2013) in thinking that Nature might allow for many real possibilities. Craig (2008) and Murphy (2011) argue that necessary facts and truths, especially moral necessities, may further be explained. Furthermore, in an extensive debate over an argument for the possibility of a world devoid of concrete objects,8 many argue that an empty world was really possible (Efird & Stoneham 2005, Rodriquez-Pereyra 1997). If the latter arguments are successful, the possibility of an empty world is an instance of real possibilities that certainly have not been realized. So, there might be real possibilities that are not metaphysically necessary.

Rescher (2013) then argues that one must, as a methodological rule, prefer a real possibility that has an explanation rather than a brute real possibility. He maintains, in this respect, that to regard some fact as brute and inexplicable is our last resort. Many contemporary philosophers adhere to a weak version of the Principle of Sufficient Reason, which maintains that one must seek an explanation unless one finds a reason that there cannot be an explanation (Della Rocca 2010, O'Connor 2008). As a result, while there is no requirement for an explanation of all existence to be ultimate (nor is it required that it would have any explanation at all), to find an ultimate explanation is, as O'Connor (2008) argues, only a matter of adhering to a hypothesis with more explanatory power.⁹ It is generally accepted, as a methodological rule in analytic philosophy, that a hypothesis involving more theoretical virtues (explanatory power and scope as well as simplicity among them) is more likely to be true.

Nor is it needed that an explanation of the existing world be contrastive at all. While some fact may explain the obtaining of A, that fact may not be able to explain why A obtains rather than B. For instance, the reason I chose tea to drink may be insufficient to explain why I chose tea over coffee to drink. Pruss (2006)

⁷ Some philosophers maintain that metaphysical necessities are explained in terms of their own necessity. Rosen (2010), for example, claims that "whenever it is essential to x that p, p holds *because* it is essential to x that p." However, Van Cleve (2018) argues that this kind of essentialist explanation results in implausible explanatory regress because, in that case, every metaphysical necessity must be explained through a higher-level metaphysical necessity: For example, it holds that it is essential to x that p because it is essential that it is essential that p. Essentialist explanation is therefore, at least, as implausible as explanatory regress.

⁸ The Subtraction Argument was firstly proposed by Baldwin (1996).

⁹ Similarly, Swinburne (1997) accepts the hypothesis that God created the whole concrete existence in virtue of its utter simplicity.

and O'Connor (2008) argue that God, as a metaphysically necessary being, is the only ultimate explanation for the existence of all concrete things; though they concede that such an explanation cannot, and need not, explain why there is not nothingness instead. Thus, Goldschmidt (2011) speaks of a new Cosmological Argument for the existence of God based on the ability of the latter hypothesis to provide an ultimate explanation for all concrete existence. However, it is again a matter of explanatory power that one prefers an ultimate contrastive explanation of the existing world to a non-contrastive one. Therefore, if one finds an ultimate explanation that can explain why there is something concrete rather than nothing, it is rational to prefer the latter to all non-contrastive explanations of the existing world in virtue of its more theoretical virtues. Moreover, the theistic explanation of Pruss and O'Connor might not be enumerated among the ultimate explanations at all. For, as indicated before, even the metaphysical necessity of God may further be explained. In that case, the question is still unanswered as to why, among all real possibilities, it is the essence of God that makes him actual. Why did not another real possibility, for example, an empty world, obtained? Although the latter God-hypothesis may seem a complete explanation for the existence of all concrete things, it cannot therefore be ultimate in itself.¹⁰ It seems that the prevalent theistic explanations must follow Swinburne's suggestion in accepting the existence of God as an ultimate brute fact.

On the other hand, as a kind of scientific self-explanation, accounts of a self-contained universe are what many have claimed to be the source of an ultimate explanation. The most prevalent account is the beginningless universe of Hume and some contemporary physicists. To strengthen this point, Quentin Smith (1988) argues that an infinite causal regress provides an account of a self-caused universe: Every concrete thing has its own cause within the universe. Alternatively, some theoretical physicists suggest a universe that literally causes itself in a circular process (Gott & Li 1998). One finds more recent suggestions for a self-contained universe in hypotheses such as the quantum gravity of Hawking (2010), quantum tunnelling of Vilenkin (2007), and quantum fluctuations of Krauss (2012), many of which result in considering a kind of Multiverse hypothesis (cf. Greene 2011).

How powerful are the latter suggestions in explaining existence? While most of those suggestions do not provide complete explanations for the existing world and leave the totality of all concrete existence (the existence of a whole Multiverse) unexplained, the beginningless universe involving infinite causes might be considered as explanatorily complete. For, every single event in that regress has its own explanation. For the same reason, Vintiadis (2018) argues that a regress of infinite explanations does not lead to a brute fact. Nevertheless, one

¹⁰ One may still add some explanatory feature to a God-hypothesis in order to turn it into an ultimate explanation.

might argue that a causal or an explanatory regress result in unacceptable *circular* explanations (cf. Pruss 2006). A further problem reveals itself in the way of scientific ultimate explanations. Heller (2009) rejects various Multiverse hypotheses because he contends that they cannot be falsifiable. He argues then that one needs to add philosophical or theological explanations to provide an ultimate explanation for all concrete existence. Although I align myself with Greene (2011) in thinking that some of the previous scientific accounts are falsifiable, I attempt to argue that those scientific suggestions cannot solve Leibniz's puzzle. For, there still remains the question of why the supposed explanation of the existing world obtains. If one further explains why there is a self-contained universe, more explanatory power is provided than when a hypothesis considers the existence of a whole universe or Multiverse without any explanation.

To turn a Multiverse hypothesis into a complete explanation for concrete existence, natural laws must be regarded as metaphysical facts that require concrete things to exist (cf. Lange 2013). There are many critics, for example, Armstrong (1983) and Maudlin (2007), who argue that if natural laws have no metaphysical footing and are nothing more than Humean regularities in the behaviour of concrete objects, those facts cannot explain anything. Therefore, natural laws must be considered as *abstract* entities that non-causally explain why there is something concrete (cf. Brenner 2020, Moghri 2021). If one considers natural laws as concrete things that causally force other concrete things to exist or behave in a certain way,¹¹ the explanation of all concrete existence by natural laws cannot be complete until the existence of those laws is further explained.

Even though an explanation of all concrete existence using abstract natural laws might be complete, such an explanation does not still seem to be ultimate. Why do those fundamental natural laws obtain? In response, Loewer (2012) argues that the obtaining of natural laws can be grounded in what constitutes the essence of those laws – the very nature of concrete objects in behaving law-like. However, this seems to be a circular explanation to postulate that natural laws explain why there are concrete objects while the existence of those objects grounds the obtaining of natural laws. To remedy the apparent circularity in explanation, Loewer contends that explaining natural laws by concrete objects is a kind of metaphysical explanation while the reverse is a scientific explanation – explaining the existence of concrete objects by the force of prior laws. Thus, he attempts to escape the objection of circularity.

Nevertheless, Loewer's suggestion is still considered by Lange (2018) as an unacceptable self-explanation because of the transitivity between the two kinds of explanation. Lange might be correct in thinking that metaphysical and scientific explanations are linked by a transitivity principle. However, Loewer's argument

¹¹ Kuhn (2007), for example, considers natural laws as concrete things that must be explained in order to provide a complete explanation of all concrete existence.

should be rejected because both explanatory paths between concrete objects and natural laws seem to be metaphysical explanations. As indicated before, to provide a complete explanation of all concrete existence by natural laws, those laws must be considered as causally inert, abstract entities. So, one cannot account for the existence of all concrete things in terms of the causal force of prior laws; that explanation cannot be scientific. If that is true, then only the explanation of concrete objects by abstract natural laws can proceed successfully, but not the other way around. In the end, the obtaining of natural laws still remains unexplained, and the claims for scientific self-explanation are not justified.

III. SELF-SUBSUMPTION

Now, is it possible at all to provide an ultimate self-explanatory account of existence? In criticizing Loewer's suggested ultimate explanation, Lange (2013) speaks of a "general prohibition against self-explanation." He uses self-explanation not in the loose sense that something's essence explains its existence, but in the strict sense that some fact literally explains itself. To think that at least nothing contingent can explain itself is presupposed by many others (Brenner 2020, Holt 2012, O'Connor 2008, Parfit 1998, Pruss 2006, Swinburne 2004, Vintiadis 2018). While Hempel and Oppenheim (1965) argue that scientific explanations cannot be circular or self-explanatory, nevertheless, the presupposition that *no kind* of logically contingent fact can explain itself has, as far as I know, never been backed up by reason.

On the contrary, Nozick (1981) mentions a way that some law or principle may explain itself by being an instance of itself. He calls such a way of explaining "self-subsumption" and explicates it as follows: A principle that asserts "All principles of a certain kind are true" subsumes itself if it is a principle of that kind. Self-subsumption operates in the same way that the sentence "Every sentence of exactly eight words is true" is an instance of itself, except that the latter is obviously false. Nozick's suggestion for a valid self-subsuming principle is, instead, "All possible worlds obtain." Since the obtaining of all possible worlds is itself a possibility, that principle can be said to subsume itself. Nozick concedes, however, that self-subsumption cannot operate as proof or justification for truth. His claim is, rather, that *if* the self-subsuming principle is true, its obtaining can be explained in terms of itself. Although Nozick does not rule out the possibility that a self-subsuming principle itself is explained further, he offers self-subsumption as one possible way that one might be able to ultimately solve the Why question.

According to Wedin (1985), four phases are involved in Nozick's suggestion to answer the Why question by self-subsumption. First, Nozick attacks the presupposition that nothingness is a natural state and would need no explanation if

130 Focus

it obtained. Thus, he favours *Egalitarian* hypotheses, in which no state of affairs is arbitrarily considered as without a need to be explained. To avoid considering nothingness or any other state as natural, all of those states of affairs must obtain. The second phase is therefore *Fecundity* – the hypothesis that all possible worlds obtain. Third, Nozick attempts to explain the Fecundity hypothesis through self-subsumption. Finally, he upgrades the Fecundity hypothesis in order to avoid some difficulties. Most responses to Nozick's suggested ultimate explanation are critical. Many of them blame him for the obscurity of his suggestion. I attempt, however, to make clear what Nozick really intends and to defend his proposal of an ultimate explanation for all (concrete) existence.

Among the first critics, Wedin (1985) objects that Nozick uses "possibility" and "possible world" interchangeably when he maintains, as a self-subsuming case, that the obtaining of all possible worlds is itself a possibility. Wedin makes clear that possible worlds are not the same as possibilities because possibilities might be contradictory and unable to obtain all in the same realm. For this reason, one must regard Fecundity as different from the principle of Plentitude, according to which the maximal sum of non-contradictory possibilities obtains (cf. Lovejoy 1936/1964). In light of Wedin's criticism, one should consider the obtaining of all possible worlds in independent, non-interacting realms. Nozick himself emphasizes that his suggestion resembles Lewis's Modal Realism, in which all possible worlds concretely and independently exist (Lewis 1986). Still, Witherall (2017) objects that Fecundity leads to a contradiction: The possibility must also obtain that *not all possibilities are realized*, and the latter contradicts Fecundity itself.

In response, however, one should notice that a Fecundity hypothesis may surpass Modal Realism by maintaining realities constituted by worlds: In possible worlds, possibilities are realized, and, in possible realities, worlds exist. So, the possibility that *all possibilities are realized* can obtain in a reality that is independent of a reality in which *not all possible worlds are realized*. All possible worlds therefore can obtain, and no contradiction seems to occur. A reality is regarded here as a logical space or a set containing various combinations of possible worlds. At a concrete level, we have the existence of every possible world, as Modal Realism suggests. However, at a more fundamental level, there exists every possible set of those worlds, including one that is a set devoid of any possible world – an empty set. Consequently, the objection cannot be revived by asserting that some possible realities do not exist.¹²

More serious criticisms attack the explanatory role of Fecundity. Wedin (1985), Kusch (1990), and Lacey (2014) object that Fecundity only mentions possible ways that a situation might have turned out and claims that those ways obtain as well. However, that suggestion is, so they criticize, not enough to reduce the mystery of why that situation and those alternative ways are realized.

¹² Thanks to Daniel Kodaj for bringing this potential objection to my attention.

Consider, for example, the question: Why did you go to the gym rather than not? Fecundity seems to say only that I went to the gym in this possible world but not in another, which is a funny answer to a why question but not obviously an explanation. Nevertheless, I argue that the Fecundity hypothesis can preserve its explanatory role by reducing the arbitrariness of concrete existence. Less arbitrariness for a hypothesis is another theoretical virtue, which makes that hypothesis to be regarded, methodologically, as more likely to be true. While Unger (1984) explicitly maintains that all possible worlds must obtain because of minimizing arbitrariness, many use the same way of reasoning in theological and scientific contexts. To reduce arbitrariness, Swinburne (1996) holds that a being with an abundance of personal virtues must be actual, and Krauss (2012) argues for a plurality of physical universes with different natural laws (a kind of Multiverse). As a result, it seems rational, as Parfit (1998) argues, to accept that if Fecundity is realized, the explaining factor is its abstract feature of being less arbitrary. This fact averts another objection that claims: Fecundity may only be a universal generalization that happens to be the case, and if that is true, Fecundity cannot rule over itself as a law (Joseph Smith 1988). If Fecundity rules over all concrete existence, having that special feature is extremely likely to be the result of a fundamental law or principle that is metaphysically necessary, rather than simply happening to obtain. As another related objection, Greene (2011) considers Nozick's Fecundity hypothesis to be ad-hoc and unfalsifiable. I argue, however, that we have good reasons to regard the principle of Fecundity as a law with explanatory force. In the subsumption of the principle of Fecundity by itself, the subsuming principle, which obtains in a reality including worlds, can be deeper than the subsumed principle in a possible world. The Fecundity principle, therefore, satisfies the characteristics of a valid explanation both for concrete existence and for itself.

Nonetheless, Fecundity shares certain difficulties with Modal Realism. All of us have the fundamental conviction that the future resembles, at least to some extent, the past. Although it is logically possible that we turn, in a second, into a cabbage or to disappear, neither Fecundity nor Modal Realism can explain why one should expect nature to follow some regularities. Leslie (2014) argues that accepting the Fecundity hypothesis ruins our inductive inferences. Against Hume's objection to Induction, there is a general agreement that our world obeys, or at least behaves in a way that appears to obey, relatively simple laws, and the ultimate explanation of existence must explain why this is the case. Nozick (1981) himself concedes that we seem to be living in a world that appears more unified than what is required for us to originate and continue to exist in it. Fecundity therefore requires upgrading.¹³

¹³ As an anonymous referee of this journal mentions, the Fecundity of all possible worlds and its self-subsumption resembles a theistic hypothesis developed by Aranyosi (2013) and

Nozick's proposal becomes very obscure and complex when it reaches the fourth stage. Wedin (1985) thinks that Nozick attempts to upgrade the principle of Fecundity by appealing to mystical experience, and that is his main criticism against Nozick. To ground the structure of all possibilities, Nozick argues that a third category must be real that involve both existence and non-existence. He adds then that only by personal mystical experience can one justify the reality of things that "nonexist". However, I argue that none of these complications is required if one considers the question "Why is there something rather than nothing?" in a limited sense to ask why there is anything *concrete*. Instead of considering things that nonexist (rather than things that simply do not exist), one can consider the category of non-concrete things simply as abstract realities. In the same way that non-spatial things cannot be coloured or uncoloured because the category of having colour does not apply to them, abstract realities do not exist, nor do they nonexist. The category of concrete existence does not apply to abstract realities.

IV. AN AXIOLOGICAL SELF-SUBSUMPTION

All these complications aside, I agree with Lacey (2014) in thinking that, to upgrade Fecundity, Nozick seeks a limited version of Fecundity that not only subsumes itself, but also accompanies us in our conviction of inductive reasoning. However, Nozick does not suggest what feature a limited Fecundity must have in order to satisfy the latter conditions. Besides, he mentions a further complication in case one finds such a limited Fecundity: The question still remains unanswered of why that limited Fecundity with its special feature obtains rather than another limited Fecundity. Lacey (2014) objects here to the extreme obscurity of Nozick in suggesting a limited Fecundity that outweighs others. But it seems that Nozick is disappointed after finding an ultimate explanation for all existence that prompts no further why questions. If there is an ultimate explanation, the question still remains unanswered, according to Nozick, of why everything is explained. It might seem without explanation, a brute fact, that everything has an explanation.

independently by Nagasawa (2016) to view God as the totality of all possible worlds. They reformulate the Ontological Argument for the existence of God to argue that a reality consisting of all possible worlds is that than which nothing greater can be conceived. However, the mere fact that the Ontological Argument can be employed in various ways to argue for the existence of different beings provides enough support that none of them can be used as proof. Other evidence needs to support a valid form of the Ontological Argument, and the evidence from the uniformity of nature and the reliability of our inductive inferences show that our world is more unique to be considered as one possibility that exists among all possible worlds that exist.

Nevertheless, it is better to postpone the difficulty of selecting one among several limited principles of Fecundity for when one finds some such principles. No such principle has yet been proposed, even by Nozick himself. I propose here a self-subsuming limited principle of Fecundity. I base such an account on the Axiological explanation of existence, the principle that says the existing world is required to exist because of its Goodness. I borrow a limited principle of Fecundity from Leslie's Spinozistic view, which claims that all Good possible worlds are required to exist (Leslie 1979). The self-subsumption is then borrowed from Rescher's justification for the Axiological explanation, the claim that the best possible world must obtain because it itself is for the best (Rescher 1984). Finally, I construct a self-subsuming limited principle of Fecundity by arguing that all Good possible worlds are required to exist. A possibility according to which all Good possible worlds exist is itself a Good possibility (as a reality), and, in turn, is required to exist. The irony is that Leslie himself does not agree with Rescher's self-subsumption, and Rescher does not accept Fecundity. In contrast, my suggestion for an Axiological ultimate explanation has both the elements of Fecundity and self-subsumption. As long as there are no other suggestions for a self-subsuming limited principle of Fecundity, one might find it reasonable to favour this proposal, if one finds it valid, in terms of its explanatory power. And if one day there will be another such suggestion, then the simpler hypothesis will be preferable.

Can there be a self-subsuming principle devoid of the latter defect? I suggest there is one. Consider the principle: All valuable possible worlds exist. It subsumes itself because the existence of all valuable possible worlds is itself a valuable possibility; the latter must therefore be actual according to the same principle. This suggestion conforms, in a way, to the Axiological explanation. Suppose we have enough reason for accepting that facts of value might explain existence, there may be a force in the nature of good things to exist. Why then shouldn't we accept that all good things might exist in separate worlds? The existence of many Good worlds seems to outweigh in value the state of there being only one Good world. If one accepts the existence of realities including co-existing worlds, one may rather deem the existence of all Good worlds as the best of all realities. If value rules over existence, then all valuable worlds are separately actual in a reality, a Meta-world.

One main objection to the idea of co-existing worlds is about the unifying factor that brings them together. However, there is no need here for a unifying factor other than value; all good worlds can exist through Axiological requiredness. Although these worlds are distinct, they are still unified by their value, which is the underlying reality that holds them together. This is similar to how different universes can coexist under the same laws of quantum physics, even though they may have their own separate spaces. While universes and good worlds are different, the Laws of Nature and Axiological requiredness are aware of both and responsible for their existence.

The latter helps us to avoid another objection: Should one not expect all good realities to exist as well? This leads to an explanatory regress, which is not satisfactory. But the objection can be avoided because the abstract facts of value can only bring about a unified reality with maximum value. And what maximizes the overall value of reality is the existence of all good worlds. So, if value rules over existence, no valuable world can be missed in reality. The axiologically unified combination of all good worlds constitutes the best reality.

A self-subsuming Axiological explanation can win over other explanations of existence that end in brute facts or explanatory regress. It has other advantages as well. If all valuable possible worlds exist, there is no need to point only to one best possible world. All candidates for the most valuable possible world can exist separately. Besides, without any further difficulty, one can accept that we live not in the best of all possible worlds, but in one among many Good possible worlds. Thus, the problem of evils in our world is simply resolved. In addition, since some level of orderliness is required for all valuable possible worlds, we can rely on our inductive inferences without finding afterwards that our world behaves differently from the past. The Axiological explanation can therefore be compatible with our conviction that the future resembles the past.

While Leslie is strongly against self-subsumption, his Axiological explanation results in something very close to the proposed Multi-worlds:

...no possible existent would seem better than a mind worth calling "divine", a mind contemplating everything worth contemplating – this including, we might well think, every detail of possible universes in infinite number and endless variety... If the realm of existing things owes its reality to its creative ethical requiredness, then it must contain not just one infinite mind but infinitely many. Each contemplates absolutely everything worth contemplating (Leslie 2014).

If God is considered as "the power of being" or "the creative ground of existence," all the Multi-worlds, all valuable things, can be viewed as the creation of God. This makes a case for a Platonic theistic account of the world.

Yet, if one finally accepts a hypothesis as the ultimate explanation of all existence, some questions seem to remain unanswered: Why should one suppose that everything is explainable (unless one finds a reason that shows otherwise)? Why does one suppose that a hypothesis with more theoretical virtues is more likely to be true? Let's just accept for now that those are the presuppositions of reasoning without which one might not be able to know the world. It might not be even coherent at all to demand an explanation for the world's explicability. For, one who asks a why question already concedes that it is rational to demand explanations.

V. CONCLUSION

I argued in this article for an Axiological teleology, the claim that the world exists because it is intrinsically valuable. This hypothesis has the merit of answering a question that is not suitably answered by others. And that question is one of the most fundamental questions: Why is there anything concrete at all? To be sure, the world might simply have happened to exist. But if some fact explains why the whole world exists, that explanation must reside in the realm of abstract facts. No regress of concrete things whatsoever can explain why the whole concrete world exists. One main candidate for an abstract explanatory feature is the world's value. Only through the world's value can one provide an ultimate explanation for existence. However, value facts should not be regarded as necessary and not apt for further explanations. Just as many necessary facts have explanations, so too might facts of value be further explained. Facts of value, on the other hand, can be self-explanatory. The fact that valuable things exist is itself valuable. So, if our world exists because of its value, all other valuable worlds must exist separately. The Axiological explanation, so interpreted, does not fall into explanatory regress. By virtue of its explanatory power, therefore, one might prefer the Axiological explanation to other explanations of existence.

While scholars have generally doubted that self-subsuming principles can successfully provide explanations, I defended one such principle to ultimately explain all existence. After first outlining objections to the explanatory role of Fecundity, I clarified the extent to which it explains all concrete existence and also itself. First, I argued that the obtaining of all possible worlds can carry an explanatory role for concrete existence because it does not make the existence of a world arbitrary. Fecundity then was shown to subsume itself if one takes for granted realities including existing worlds. However, a destructive objection to Fecundity was that it cannot comply with the fundamental conviction that our world behaves in accordance with simple laws. An alternative self-subsuming principle is required, therefore, to explain why we live in a unified world of regularities. As a result, I further constructed a self-subsuming limited principle of Fecundity based both on Leslie's and Rescher's Axiological explanations for existence. My proposed ultimate explanation for all concrete existence is the principle that all intrinsically valuable possible worlds are required to exist. While that principle subsumes itself because it obtains in a valuable reality constituted by co-existing valuable worlds, it does not fail us in our conviction of inductive inferences. For, all valuable possible worlds behave lawfully and are unified. Still, some accepted features of our world remain unexplained; for example, the fact that the existence of every concrete thing is explained and that true hypotheses are simpler and have more explanatory power. One might accept these presuppositions in the end as the methodological rules of our reasoning. Or one

136 Focus

may maintain that it would be too late for demanding an explanation for the rationality of everything. For, one first concedes to the intelligibility of the world when one asks: *Why* is the existing world intelligible?

REFERENCES

- Aranyosi, István 2013. God, Mind and Logical Space: A Revisionary Approach to Divinity. New York, Springer. https://doi.org/10.1057/9781137280329
- Bird, Alexander 2007. Nature's Metaphysics: Laws and Properties. Oxford, Oxford University Press. https://doi.org/10.1093/acprof:oso/9780199227013.001.0001
- Baldwin, Thomas 1996. There Might Be Nothing. *Analysis*. 56. 231–238. https://doi.org/10.1093/analys/56.4.231
- Barnes, Eric 1994. Explaining Brute Facts. PSA: Proceedings of the Philosophy of Science Association. 1. 61–8. https://doi.org/10.1086/psaprocbienmeetp.1994.1.193011
- Brenner, Andrew 2020. Explaining Why There Is Something Rather Than Nothing. *Erkennt-nis*. 87. 1–17. https://doi.org/10.1007/s10670-020-00277-6
- Cameron, Ross P. 2008a. Truthmakers and Ontological Commitment: Or How to Deal with Complex Objects and Mathematical Ontology without Getting into Trouble. *Philosophical Studies*. 140. 1–18. https://doi.org/10.1007/s11098-008-9223-3
- Carroll, Sean M. 2018. Why Is There Something, Rather Than Nothing? https://arxiv.org/abs/1802.02231
- Craig, William L. 2008. *Reasonable Faith: Christian Truth and Apologetics*. Wheaton, Crossway. Della Rocca, Michael 2010. *PSR*. Ann Arbor/MI, Michigan Publishing.
- Efird, David Tom Stoneham 2005. The Subtraction Argument for Metaphysical Nihilism. The Journal of Philosophy. 102. 269–280. https://doi.org/10.5840/jphil2005102614
- Fine, Kit 2012. Guide to Ground. In Fabrice Correia Benjamin Schneider (Ed.) Metaphysical Grounding: Understanding the Structure of Reality. New York, Cambridge University Press. 37–80. https://doi.org/10.1017/cbo9781139149136.002
- Goldschmidt, Tyron 2011. The New Cosmological Argument: O'Connor on Ultimate Explanation. *Philosophia*. 39, 267–288. https://doi.org/10.1007/s11406-010-9282-5
- Gott III, J. Richard Li-Xin Li 1998. Can the Universe Create Itself? *Physical Review D*. 58. https://doi.org/10.1103/physrevd.58.023501
- Greene, Brian 2011. The Hidden Reality: Parallel Universes and the Deep Laws of the Cosmos. New York, Vintage.
- Hawking, Stephen Leonard Mlodinow 2010. *The Grand Design*. New York, Random House Digital.
- Heil, John 2018. Must There Be Brute Facts? In Elly Vintiadis Constantinos Mekios (Ed.) Brute Facts. Oxford, Oxford University Press. 19–27. https://doi.org/10.1093/oso/9780198758600.001.0001
- Heller, Michael 2009. *Ultimate Explanations of the Universe*. New York, Springer Science & Business Media. https://doi.org/10.1007/978-3-642-02103-9
- Hempel, Carl Oppenheim, Paul 1965. The Logic of Scientific Explanation. In Carl Hempel. Aspects of Scientific Explanation. New York, The Free Press. 297–330. https://doi. org/10.2307/2272422
- Holt, Jim 2012. Why Does the World Exist? An Existential Detective Story. New York, Liveright Publishing Corporation.
- Krauss, Lawrence M. 2012. A Universe from Nothing: Why There is Something Rather than Nothing. London, Simon and Schuster.

- Kuhn, Robert L. 2007. Why This Universe? Toward a Taxonomy of Possible Explanations. *Skeptic.* 13, 28–40.
- Kusch, Martin 1990. On "Why Is There Something Rather Than Nothing?" American Philosophical Quarterly. 27. 253–257.
- Lacey, Alan 2014. Robert Nozick. London, Routledge. https://doi.org/10.4324/9781315710785
 Lange, Marc 2013. Grounding, Scientific Explanation, and Humean Laws. Philosophical Studies. 164. 255–261. https://doi.org/10.1007/s11098-012-0001-x
- Lange, Marc 2014. Are Some Things Naturally Necessary? In Tyron Goldschmidt (Ed.) The Puzzle of Existence: Why is there Something Rather than Nothing? New York, Routledge. 235– 251. https://doi.org/10.4324/9780203104323-18
- Lange, Marc 2018. Transitivity, Self-Explanation, and the Explanatory Circularity Argument against Humean Accounts of Natural Law. Synthese. 195. 1337–1353. https://doi.org/10.1007/s11229-016-1274-y
- Leibniz, Gottfried W. 1714/1989. Principles of Nature and Grace. In his *Philosophical Papers and Letters* (ed. Leroy E. Loemker). Amsterdam, Kluwer. 636–642. https://doi.org/10.1007/978-94-010-1426-7_67
- Leslie, John 1979. Value and Existence. Oxford, Basil Blackwell.
- Leslie, John 2014. A Proof of God's Reality. In his *The Puzzle of Existence*. London, Routledge. 136–151. https://doi.org/10.4324/9780203104323-12
- Lewis, David 1986. On the Plurality of Worlds. Oxford, Basil Blackwell.
- Loewer, Barry 2012. Two Accounts of Laws and Time. *Philosophical Studies*. 160. 115–137. https://doi.org/10.1007/s11098-012-9911-x
- Lovejoy, Arthur O. 1936/1964. The Great Chain of Being. Cambridge/MA, Harvard University Press.
- Mackie, John L. 1982. The Miracle of Theism: Arguments for and against the Existence of God. Oxford, Clarendon Press.
- Mancosu, Paolo 2001. Mathematical Explanation: Problems and Prospects. *Topoi*. 20. 97–117. https://doi.org/10.1023/A:1010621314372
- Maudlin, Tim 2007. The Metaphysics within Physics. New York, Oxford University Press. https://doi.org/10.1093/acprof:oso/9780199218219.001.0001
- McDaniel, Kris 2007. Extended Simples. *Philosophical Studies*. 133. 131–141. https://doi.org/10.1007/s11098-006-9010-y
- Moghri, Mohsen 2021. Deriving Actuality from Possibility. *Philosophia*. 49. 393–402. https://doi.org/10.1007/s11406-020-00246-x
- Murphy, Mark 2011. God and Moral Law. Oxford, Oxford University Press.
- Nagasawa, Yujin Andrei Buckareff 2016. Modal Panentheism. In their *Alternative Concepts of God: Essays on the Metaphysics of the Divine*. Oxford, Oxford University Press. 91–105. https://doi.org/10.1093/acprof:oso/9780198722250.003.0006
- Nozick, Robert 1981. Philosophical Explanations. Cambridge/MA, Harvard University Press.
- O'Connor, Timothy 2008. *Theism and Ultimate Explanation: The Necessary Shape of Contingency*. Oxford, Blackwell. https://doi.org/10.1002/9781444345490
- Parfit, Derek 1998. Why Anything? Why This? The London Review of Books. 20. 24–27.
- Plantinga, Alvin 1977. God, Freedom, and Evil. Grand Rapids, William B. Eerdmans Publishing.
- Plantinga, Alvin 2011. Where the Conflict Really Lies: Science, Religion, and Naturalism. New York, Oxford University Press. https://doi.org/10.1093/acprof:oso/9780199812097.001.0001
- Pruss, Alexander 2006. The Principle of Sufficient Reason: A Reassessment. Cambridge, Cambridge University Press. https://doi.org/10.1017/cbo9780511498992
- Rescher, Nicholas 1984. *The Riddle of Existence: An Essay in Idealistic Metaphysics*. Lanham, University Press of America.

Rescher, Nicholas 2010. Axiogenesis: An Essay in Metaphysical Optimalism. Lanham, Lexington Books.

- Rescher, Nicholas 2013. On Explaining Existence. Berlin, Walter de Gruyter. https://doi.org/10.1515/9783110320442
- Rodriquez-Pereyra, Gonzalo 1997. There Might Be Nothing: The Subtraction Argument Improved. *Analysis*. 57. 159–166. https://doi.org/10.1093/analys/57.3.159
- Rosen, Gideon 2010. Metaphysical Dependence: Grounding and Reduction. In Bob Hale
 Aviv Hoffmann (Ed.) Modality: Metaphysics, Logic, and Epistemology. New York, Oxford University Press. 109–135. https://doi.org/10.1093/acprof:oso/9780199565818.003.0007
- Rowe, William L. 1970. Two Criticisms of the Cosmological Argument. *The Monist.* 51. 441–459. https://doi.org/10.5840/monist197054329
- Russell, Bertrand Copleston, Frederick C. 1948. *A Debate on the Existence of God.* New York, Harper & Row.
- Smith, Joseph W. 1988. Essays on Ultimate Questions. Beatty, Avebury.
- Smith, Quentin 1988. The Uncaused Beginning of the Universe. *Philosophy of Science*. 55. 39–57. https://doi.org/10.1086/289415
- Swinburne, Richard 1997. Simplicity as Evidence of Truth. Milwaukee, Marquette University Press.
- Swinburne, Richard 2004. *The Existence of God.* Oxford, Oxford University Press. https://doi.org/10.1093/acprof:oso/9780199271672.001.0001
- Tillich, Paul 1951. Systematic Theology. Chicago, The University of Chicago Press.
- Unger, Peter 1984. Minimizing Arbitrariness: Toward a Metaphysics of Infinitely Many Isolated Concrete Worlds. *Midwest Studies in Philosophy*. 9. 29–51. https://doi.org/10.1111/j.1475-4975.1984.tb00051.x
- Van Cleve, James 2018. Brute Necessity and the Mind–Body Problem. In Elly Vintiadis Constantinos Mekios (Ed.) Brute Facts. Oxford, Oxford University Press. 63–96. https://doi.org/10.1093/oso/9780198758600.003.0005
- van Inwagen, Peter 1983. An Essay on Free Will. Oxford, Oxford University Press.
- Vilenkin, Alexander 2007. Many Worlds in One: The Search for Other Universes. New York, Hill and Wang.
- Vintiadis, Elly 2018. There Is Nothing (Really) Wrong with Emergent Brute Facts. In Elly Vintiadis Constantinos Mekios (Ed.) *Brute Facts*. Oxford, Oxford University Press. 197–212. https://doi.org/10.1093/oso/9780198758600.003.0011
- Wedin, Michael V. 1985. Nozick on Explaining Nothing. *Philosophy Research Archive*. 10. 337–346. https://doi.org/10.5840/pra1984107
- Witherall, Arthur 2017. *The Problem of Existence*. London, Routledge. https://doi.org/10.4324/9781315237602