

Some Recent Progress on the Cosmological Argument

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1. Introduction

In the first chapter of Romans, Paul tells us that the power and deity of God are evident from what he has created. One reading of this is that there is an argument from the content of what has been created. Thus, the Book of Wisdom, which may well have been the source of Paul's ideas here, says that "from the greatness and beauty of created things their original author, by analogy, is seen" (13:5, NAB). This is a kind of teleological or design argument. But one might also argue instead from general features of the universe, such as the fact that there *is* a universe at all, or that there are contingent states of affairs, or that there is motion. Alternately, one might argue from something extremely specific, but where the details do not matter, such as the conjunction of all contingent facts.

The general strategy of cosmological arguments is to take a grand feature of the world, and then argue, abstracting from much of its specific content, that the best or only possible explanation is a First Cause, an entity that stands at the head of a causal chain leading to the occurrence of the existential feature. Typically, the grand feature is something the opponent will not challenge. Instead, opponents tend to ask:

1. Does the grand feature actually have an explanation?
2. Can there be an explanation not involving a First Cause?
3. Need the First Cause be God?

Recent discussion has particularly focused on the first two questions, and I wish to primarily focus on the first question myself in this talk. But first a few words about progress on the second and third question, in reverse order.

2. Need the First Cause be God?

The third of the questions presents the “gap problem”—how to go from a First Cause to theism.

St. Thomas has a series of elaborate arguments that the First Cause must be a necessary being that is utterly simple and with no potentiality. The necessity part of the argument is adopted by a number of contemporary cosmological arguers. After all, if the First Cause were just a contingent being, then asking for the explanation of the First Cause’s existence would seem to be just as reasonable as asking for the explanation of the existence of the universe.

From simplicity and complete actuality, Aquinas argues that the necessary being is perfect in every way, and derive enough of the attributes of God that there is no difficulty identifying the First Cause with God. I find a number of St. Thomas’s arguments here to be quite powerful, and they have not been sufficiently studied by contemporary philosophers of religion. However, they are very heavy on controversial metaphysics, and there is virtue in finding arguments that do not rely on so much controversial metaphysics.

Perhaps the most obvious question to ask is whether the First Cause needs to be a person at all. If we accept Richard Swinburne’s division of explanations into the personal, where we explain by invoking the agency of a free person, and the scientific, where we explain by means of initial conditions and laws of nature, then we have a good argument for the personhood of the First Cause, given

necessary existence. For, arguably, the initial conditions and laws in scientific explanations are always contingent. And indeed a number of cosmological arguments do conclude to a necessarily existing First Cause, or to a First Cause that otherwise has a status, such as atemporality or immutability, that the conditions entering into scientific explanations lack.

If Swinburne's division is exhaustive, then we have made some progress. After all, a necessarily existing, or even just atemporal or immutable, person is already rather God-like, and typical atheists deny the existence of any such person. Of course one might object that even though all our explanations are personal or scientific, nonetheless another kind of explanation *can* be given. But in the search for explanation, a known type of explanation is surely to be epistemically preferred to an unknown one, so we at least get an inductive argument for the existence of a God-like being. I think there is one kind of explanation, constitutive explanation, that Swinburne misses—the knife is hot holds because the molecules in it have high kinetic energy (the kinetic energy *is* heat, and not the cause of the heat). However, arguably, the *ultimate* explanations of contingent states of affairs have to be causal, not constitutive, since we can always query why a constituting contingent state of affairs holds.

Robert Koons has combined the cosmological and teleological arguments. Once we know that this universe has a cause, it becomes plausible that the wondrous combination of complexity and order that is found in it is there by design, i.e., that the cause is a person who planned for this. Moreover, this complexity and order is so great that this must be a person of very high intelligence, and we might argue that the person has at least a certain kind of

attunement to the good and the beautiful. Hence, we solve the gap problem by using the design argument.

Finally, in the case where the feature to be explained is the sum total of all contingent facts about this world and the cosmological argument is one that can be run in every possible world, Jerome Gellman has come up with a very clever argument that the First Cause is omnipotent. Here is a simple version. Let N be the aggregate of all necessary beings that are persons. In every possible world, a cosmological argument to a necessarily existing First Cause can be run. This First Cause must be a part of N . On the assumption that if a part counts as the cause of something, so does the whole (albeit in virtue of the part), at least as long as the effect is distinct from that whole, we can argue that N is itself a First Cause in every possible world. But to be the First Cause in every possible world is to be capable of initiating a chain of causes leading to any possible world, and this is very close to omnipotence.

If we could establish the existence of an all-powerful, highly intelligent and necessarily existing First Cause of the universe, we would have accomplished much. It might not be enough to justify us in concluding that the God of Western monotheism exists, but perhaps the rest of the gap could be bridged by a reasonable faith or other arguments, like those of Aquinas.

3. Can there be an explanation not involving a First Cause?

There are historically two ways that this question has been asked. First, we might ask whether there can be a non-causal ultimate explanation, namely, a non-causal ultimate explanation of one of these highly general states of affairs such as the existence of contingent fact. Second, Hume has asked whether a

causal explanation could not be given by means of a *chain* of non-ultimate causes, a chain that does not have a first element.

Recent defenders of non-causal ultimate explanations invoke either laws of nature or metaphysical principles but no *entities*. Perhaps there is some law of nature that states that universes of such-and-such a sort have such-and-such a probability of coming into existence. One way to try to counter this kind of an answer is to use Koons' solution to the gap problem here again: the complexity and order of our universe is such that, granting that there is an explanation, it is unlikely that random processes yield this explanation. Rescher, on the other hand, invokes the principle that everything must be for the best. (In his view, this is also why God exists.) But of course, such a Leibnizian view raises the problem of evil in a particularly virulent way.

More generally, one might worry about the coherence of an explanation that involves no entities. On such an explanation, the fact that does the explaining is literally not a fact *about* anything. Can there be facts that are not about anything?

I asked my three-year-old daughter recently whether something non-substantial, such as sleep (I cannot remember the exact example I used), was a thing. She told me that it was "not a thing", but also was "not imaginary". This is presumably the answer the defender of explanations without entity will give. The principle or law of nature that is invoked in the explanation then is not a thing, but also not imaginary. But such a philosopher faces a more serious conceptual problem than the one I presented my daughter with. For while sleep is not a thing, the reason sleep is not imaginary is that there are things—people and animals—that sleep.

Moreover, if no thing's existence or state is reported in the explaining fact, how can the fact do any explaining? The old adage *ex nihilo nihil fit* seems deeply appropriate here. And one of the few things more absurd than the idea that something might come from (not necessarily in a temporal sense) nothing is the idea that something might come from nothing *and yet be explained*.

Hume's objection, on the other hand, posited lots of entities as explanations. Suppose that the fact that the cosmological arguer seeks the explanation of is the existence of the universe, understood as the aggregate of all contingent beings. Hume will present the following scenario: Each contingent being has its cause in another contingent being *ad infinitum*. Now, each contingent being's existence has been explained. When each part of a whole has been explained, the whole has been explained, and so we have explained the existence of the universe.

Hume's principle that to explain the parts is to explain the whole fails, however, in cases where the parts are explained by other parts. Here is a simple counterexample. As the whole, take the flight of a cannon-ball that was shot out of a cannon at noon, the flight including all the states between noon and the landing, excluding both. As the parts, take the momentary states of the cannon-ball. We can explain any one of these states by reference to the laws and an earlier state. You want to know why the cannon-ball had the state it did four seconds after noon? It is because it had such and such a state two seconds after noon which by the laws of nature led to its having the posited state four seconds after noon. Thus, any of the states of the cannon-ball after noon can be explained by another state of the cannon-ball after noon. Hume's principle thus entails that the whole flight of the cannon-ball can be explained *by itself* together with the

laws of nature, without any mention of the cannon's being fired. This is absurd and so Hume's principle is false.

4. The Principle of Sufficient Reason

The most powerful objection to the cosmological argument is to the assumption that there is an explanation at all for the feature of the world that the arguer starts with. To avoid being *ad hoc*, the cosmological arguer needs a principle here, and this usually takes the form of the Principle of Sufficient Reason (PSR) or a special case or variant of it. The PSR that I defend holds that all contingently true propositions have explanations.

At one point Leibniz says that the existence of God cannot be proved without the PSR (a strange claim given that he liked the ontological argument), but he never to my knowledge either gives an argument either for this claim or offers a convincing positive reason for the PSR. Aquinas makes use of the somewhat weaker Causal Principle (CP) that holds that every contingent event or thing has a cause. The PSR and the CP are generally considered necessary truths by their defenders.

A strategy for philosophically inclined atheists, ever since Hume, is simply to do deny the PSR that is used in a cosmological argument. A standard positive Humean argument is that we could imagine something coming into existence *ex nihilo*, and hence something could come into existence *ex nihilo*, contrary to the PSR. Of course, the inference from imaginability to possibility here is dubious, but I think there is at least a defeasible inference available.

But the idea of "imagining" something coming into existence for no cause at all is a bit odd. It is easy to imagine a brick without imagining a cause for it.

But how do I actually imagine the causelessness of a brick? Do I maybe imagine a bunch of vacuum and a brick popping into existence? I am not sure I can even imagine vacuum. I can imagine a region of space that looks empty, but a room full of air also looks empty, and so my imagining does not seem to distinguish a vacuum from airlessness. I suppose I might somehow mentally insist on every kind of reality being absent from the region of space I am imagining: there are no solids, no liquids, no gases, no fields, etc. But remember I am supposed to be doing this in imagination. How amenable to imagination electromagnetic fields or their absence is is a dubious question. Moreover, I need to imagine the lack of invisible entities of a sort that I had never thought about, that I could never imagine, for to imagine an empty region of space is to imagine it empty of *them* as well.

And even if I should ever manage to perform this feat of imagination and imagine a region of space that was empty and a brick popping into existence in the middle of it, the content of my imagination would not be sufficient to imply that I have imagined a brick popping into existence *ex nihilo*, but only that I have imagined a brick popping into existence that has no a prior cause *in that region of space*. But the exercise was to imagine a brick that has no cause at all. And here, I suspect, we have gone beyond the limits of imagination. We can imagine a brick in an empty region of space and we can ensure that we are not positively imagining for it a cause elsewhere in space, but to say that this is a causeless brick, we must go beyond imagination—we must actually verbally *suppose* the imagined brick to have no cause elsewhere. And our ability to verbally *suppose* something seems no evidence for its metaphysical possibility. Indeed, mathematicians constantly *suppose* impossibilities to disprove them by *reductio*.

There are three other prominent objections to the PSR. The first is that there is insufficient reason for the atheist to accept the PSR. This is, in effect, a challenge for the defender of the PSR to produce an argument for it. The second is Schopenhauer's "taxi cab objection", sophisticated versions of which have been offered by authors like Rowe and van Inwagen. Once the PSR has been used to arrive at God, it is dismissed like a cab we no longer need, instead of being used to query why God exists or why God created what he did, which would lead to a vicious regress. The third is free will and unexplainable quantum facts.

I will quickly sketch four ways one might justify the PSR or at least the CP. Then, I will respond to the taxi cab objection. I will have talked about free will while talking about the taxi cab objection. The quantum case can be dismissed fairly quickly, since the following logically possible proposition is compatible with all empirical observations and if true makes quantum mechanics logically compatible with the PSR (this isn't the only way of doing so): In the case of each physically indeterministic event, a supernatural being chooses how that event will go.

I will end by sketching four ways of weakening the PSR which nonetheless suffice for purposes of cosmological arguments.

5. Four justifications of belief in the PSR or the CP

I. The PSR is self-evident. To use Rescher's example, when an airplane crashes, we do not accept the verdict: "The airplane crashed for no reason at all." If that is what the investigators came up with, we would charitably understand them as saying that they did not know what the reason for the crash is. Quite possibly the PSR is self-evident. If so, then its opponents are perverse or

deluded. Or maybe they just do not understand the PSR. That may be, but just saying that it is so is not going to be any dialectical use.

A somewhat better strategy might be to point out that even the PSR's opponents make use of the PSR in their everyday and philosophical pursuits. Their denial of it in the case of the grand explanatory questions, like why there are contingent beings, may be *ad hoc* and driven by a desire to remain atheist.

II. Why does the PSR hold for everyday events? Almost nobody seriously doubts (Richard Swinburne is the only exception I know of) that the PSR holds almost always for macroscopic events like airplanes crashing and light-bulbs turning on, that rocks placed somewhere stay there unless they have a cause to move, and that bricks do not pop into existence *ex nihilo*. But why does the PSR hold at least most of the time in such a restricted context? This is a perfectly legitimate request for explanation. The simplest explanation is that the PSR is a metaphysical principle holding of necessity. Hence the PSR holds. This is not a viciously circular invocation of the PSR, but an innocent application of inference to best explanation.

The main alternate explanation that will be offered is that the laws of nature, especially the conservation laws, are such as to entail that the PSR holds almost all the time for macroscopic events. But whether this alternate explanation succeeds depends on substantial questions about laws. The inference to best explanation argument for the PSR works best on one account of laws: the Aristotelian one. On this account, the laws of nature are grounded in the essences and powers of finite, non-divine substances. But if so, then how can the laws of nature prevent a brick from popping into existence in a vacuum? What essences and powers are keeping the brick from having such a causeless

beginning? Certainly not the essences and powers of the hypothetical brick, since these do not in fact exist. Is it the essences and powers of *other* entities? But a power to prevent the coming into existence of a new entity, *ex nihilo*, seems at least a little odd.

We can imagine a non-divine substance that can blow a brick to smithereens once the brick comes into existence and maybe even a non-divine substance that could utterly annihilate a brick. But how would such a substance go about preventing the brick from coming into existence? Maybe it could take up some of the spaces where the brick would have come into existence, but we were supposing a brick coming into existence in a vacuum.

III. Cartesian demons. This argument is inspired by Plantinga's self-defeatingness argument against naturalistic evolution. The centerpiece of Plantinga's argument is a plausible thesis about defeaters, of which I need the following variant:

(*) Suppose there is a proposition p that is not epistemically unlikely that is such that p implies that almost all of our apparent knowledge is false.

Then this fact about p is a defeater for all or almost all of our knowledge.

It had better be unlikely that almost all of our apparent knowledge is false—else our knowledge is defeated. Note that there are three ways for a proposition not to be unlikely: it might be likely, or it might have inscrutable or indefinable probability.

By definition, an entity is "my Cartesian demon" if and only if this entity is supernatural and brings it about that almost all of what I think I know consists of false propositions. Now if the CP is false, then no objective probability can be assigned to my Cartesian demon's coming into existence *ex nihilo* at my

conception. How could one assign probabilities to non-spatial beings coming into existence *ex nihilo* for no reason? Hence the coming into existence of such a demon is not objectively unlikely. But if I know that something is not objectively unlikely and, furthermore, it is something against which I have no evidence, then I should likewise say it is not epistemically unlikely. Hence, denying the CP yields a defeater for almost all of my apparent knowledge. In fact, it is clear that unless I think the CP is likely true, I have such a defeater. Believing that I do not in fact have a defeater for almost all of my knowledge commits me to holding that the CP is likely true.

IV. The nature of possibility. I could have failed to come to this conference, but could not have become the number seven. What makes these claims true?

One of the most prominent answers to questions like this is Lewis's. What makes it true to say that I could have failed to come to this conference is that there really exists a physical universe where someone relevantly like me does not come to a conference relevantly like this one. There is a universe with the Greek gods, too, Lewis explicitly says. Indeed, all possible universes, namely, maximal spatiotemporally connected aggregates, exist. Lewis's is a philosophically courageous answer, but one that leads to absurdities. A simple one is this. Even for a deontologist, there are cases in ethics where consequentialistic considerations are key. When choosing between two morally similar charities to which to donate money, the crucial question can be which of them will help the greater number of people. But if all possible universes exist, then whichever option I choose, a counterpart of me in another world will choose the other option, and in the totality of reality, the net result will be the same. Hence the consequentialistic reasoning is undercut.

The second answer, given by Adams and Plantinga and others, is that modal truths are primitive truths about a Platonic realm. On the Adams version, propositions are Platonic entities, which have properties like possibility or necessity. This answer is unsatisfactory because it fails to explain why these facts about the Platonic realm are connected with this world as they are. What connection does the fact that some Platonic proposition has the Platonic property of impossibility have with the curious absence of square circles in this room? Or why is it that whenever anybody has the concrete ability to do *A*, the Platonic proposition that she does *A* has the property of possibility?

This last question suggests an alternative account. After all, for a lot of possibility claims we can say very easily what makes them possible. Indeed, there is an embarrassment of riches here. That I might not have come to this conference is made true by a driver's ability to murder me while I am on a sidewalk, by my ability to decide to go for a swim in the Potomac instead, and by the ability of my wife and the chair of the chemistry to supply her with chloroform to prevent my coming. Anything that can prevent an event makes it true that possibly the event does not happen. Likewise, anything that can cause an event makes it true that possibly the event happens.

What if in fact all of modality is like that? Generalizing, the view would be something like this. A non-actual event *E* is possible provided there is (in the timeless sense—this thing might be in the past) something (an event or substance) that can cause *E*, or providing that there is something that can cause something that can cause *E*, or providing that there is something that can cause something that can cause something that can cause *E*, and so on. More generally,

an event E is possible provided either E is actual or there exists something that has the ability to initiate a chain of causes capable of leading to E .

It is clear then why modality is connected with the stuff around us, since possibility is grounded in the powers of things in the world. Dually, impossibility is grounded in the powerlessness of things in the world: it is impossible for there to be square circles because nothing has the power to cause a square circle. Moreover, we have some hope at least of making a little bit of progress on the obvious epistemological problems facing the Lewisian and Platonic views. For we experience the powers of things, at least in their activation, and can form scientific theories about a number of them. I can be most sure that something is possible if I can sketch a causal story for it.

But this Aristotelian account of modality entails the PSR. To see this, I will show that the account implies:

(**) If p is a contingently false proposition, then it is not possible for it to be the case that both p is true and there is no explanation why p is true.

Suppose I have established this. Let p be a contingently *true* proposition. Then there is some possible world w at which p is false. Apply (**) at w . The conclusion is that at w it is the case that it is not possible that p is both true and unexplained. But by S5, what is not possible at w is not possible at the actual world. (It actually turns out that S5 follows from this Aristotelian account, so S5 is not an additional assumption.) Hence it is not possible that p is true but does not have an explanation. Since p is in fact true, it has an explanation. Q.E.D.

Let's prove (**). Take a contingently false proposition p . Suppose for a *reductio* that it is possible that p is true and unexplained. By the Aristotelian account of possibility, there would be something that can initiate a causal chain

leading to its both being the case that p is true and that it is unexplained. But the causal chain would then explain p , and hence p would not be unexplained. Thus, p would and would not be unexplained upon conclusion of this causal chain, which is absurd.

The Aristotelian account of modality is arguably the best account of modality we have, and it entails the PSR. Hence we have good reason to think the PSR is true. And if the PSR is true, then a necessarily existing supernatural being exists.

6. The taxi cab objection

Take a typical cosmological argument, say one that accepts the full PSR, notes that it is a contingent fact that this universe exists, and proposes God's creative decision as an explanation. We can now ask two questions. The first is why God exists. The defender of the argument can say that God is a necessary being. Then, one can either say that the PSR applies only to contingent propositions or that God's existence is explained by its necessity.

But the more serious question is why God has created *this* universe. Let U be a description of those contingent aspects of this universe that God is responsible for. Consider the claim:

(E) a necessarily existing God freely chose to create a universe satisfying U .

Then, according to the cosmological argument, a universe satisfying U exists because of E . But E itself is a contingent claim, since it reports the contingent decision of a necessary being, and hence unless we dismiss the PSR like a cab we no longer need, we need to say that E itself has an explanation. But since E is

contingent, its explanation had better be a contingent fact as well. Hence, a vicious regress ensues.

In the past, Richard Gale and I have defended the idea that E is self-explanatory. But there is also another solution, and one that now appears superior. God has a reason for his choice to create a universe satisfying U . We do not know this reason, but can speculate that it has something to do with the kinds of values that a universe satisfying U instantiates. Leibniz, for instance, thought that these values were something like *optimal balance of diversity and unity*. Different kinds of universes have different values. Some are more diverse, some involve less suffering, some contain more courage, some have fewer erring persons in them, etc. A number of these values are incommensurable—the value of knowledge is neither greater nor lesser than the value of courage, but different. When God chooses one universe over another, it is because of the values that the one universe exemplifies. Had he created a universe with just a single particle, it might have been because it exemplified maximal simplicity.

Let V be the collection of values that the universes described by U satisfy. We can then say that God freely chose to create a universe satisfying U because

(F) God appreciated the values in V and knew that the universes satisfying U had these values.

Now God, being essentially all-knowing and all-good, must appreciate all values and must know what universes satisfy them. Hence we have explained E in terms of a necessary proposition—that God appreciated certain values and knew what universes satisfied them.

What is puzzling about F as an explanation is that F would have held even had God freely chosen to create a universe not satisfying U . Of course, had God

freely chosen to create a universe not satisfying U , it would not have been because of F , but because of a similar proposition F^* to the effect that God appreciated the values in some V^* and knew that the universes satisfying some U^* had these values. The fact that F would have held even had God not created a U -type universe is not a problem. In general, an explaining proposition need not entail the explained fact—this is clear in the case of statistical explanation, for instance. Our proposition F is necessarily true but only contingently explanatory.

Now one may try to run the regress differently. Why is it that F explains E , one might ask? But the answer is simple: F explains E because of the conceptual fact that appreciating the value of an outcome is a reason for choosing to produce the outcome, and when this reason is acted on, it is explanatory of the action. But why, we may ask, did God act on these values? Again, an easy answer: because they impressed him.

But why act on *these* values rather than other values? Here two answers are given. Arguably, " p rather than q " is not a proposition, and the PSR applies only to propositions. Alternately, we can say that God acted on V rather than V^* precisely because he was impressed by V . Had he acted on V^* rather than V , it would have been because he was impressed by V^* . Granted, he was impressed by both. But that does not affect my claim. To use Robert Kane's example, if one has a tug of war, even an indeterministic one, we would say that the winner won because of the winner's effort.

Of course, I cannot say what the values in V are. For that we may need Revelation. But the PSR never claimed that the explanations were knowable. But the regress is stopped.

7. Alternatives to the PSR

A different strategy for defending the cosmological argument is to use something weaker than the PSR. The advantage is two-fold. First, the weaker proposition may appeal to a wider audience, and, second, it will be subject to fewer objections. So let me quickly sketch a four of the options available.

I. White's inference to only explanation. Here is a version of David White's argument. It is plausible that the best explanation is true. But it is even more plausible that if one can show that at most one explanation is possible and if that one explanation cannot be shown to be false, then we should accept that explanation. Only the action of a God-like being can explain the existence of the universe. We cannot show that such a being does not exist. Ergo, such a being exists. Note that an opponent of the PSR will presumably accept the principle of only explanation as at best a defeasible one.

II. Taylor's PSR for positive states of affairs. Every *positive* state of affairs has an explanation. This is all we need for a cosmological argument. Moreover, it turns out that Taylor's PSR, seen as a necessary truth, implies the full PSR. For we can explain all positive states of affairs with Taylor's PSR. Note, however, that the typical opponent of the full PSR will object to Taylor's version as well.

III. Gale and Pruss's Weak PSR. Necessarily, if p is a contingent true proposition, then it is possible that p has an explanation. It turns out that the weak PSR entails the full PSR. The proof depends on supposing p is a contingent, true, unexplained proposition and then applying the weak PSR to the proposition $p \& (p \text{ has no explanation})$, to conclude absurdly that it is possible to simultaneously explain why both p holds and why p has no explanation.

Whether an argument based on the Weak PSR is any better off epistemically than an argument based on the PSR, and whether the plausibility of the Weak PSR provides any additional evidence for the PSR, is an open question.

IV. The Restricted PSR. One reason to object to the full PSR is because one may think that there are some truths that just cannot have an explanation. For instance, van Inwagen thinks that the conjunction of all contingent true propositions is like that. Someone else might think that a report of a free choice is like that. The Restricted PSR is meant to be a principled way of avoiding all such objections: Every proposition that can have an explanation does have an explanation, where a proposition “can have an explanation” provided that there is some possible world at which it holds and has an explanation.

One might think that the Restricted PSR is insufficient for a cosmological argument because an atheist could simply insist that the general fact that the cosmological argument seeks an explanation for is in fact inexplicable. But this is incorrect. I will show how a cosmological argument based on the Restricted PSR can be run by showing how the argument would work in a very tiny universe. Suppose then that there are only three contingent entities in existence: a donkey, a snail and a philosopher (if I were clever enough, I would have a joke here). Consider the proposition that there exists a donkey, a snail and a philosopher. This is a proposition that *can* have an explanation. For there is a possible world where there is a donkey, a snail and a philosopher, and where this proposition has an explanation—just consider a world like ours (and unlike the tiny one), where the existence of the donkey and snail are explained by evolutionary processes and the philosopher’s existence is explained by conception and educational processes.

Thus, by the Restricted PSR, even in our tiny three-contingent-entity world there is an explanation of why there is a donkey, a snail and a philosopher. An explanation of an existential fact like that must involve the causal efficacy of some being. This being is neither the donkey nor the snail nor the philosopher, nor any combination of these, since none of these three beings and no combination of them is capable of explaining its own existence. Hence the fact must be explained by the causal efficacy of some being that is not one of these three. Since these three were all the contingent beings in existence, the fact must be explained by the causal efficacy of a non-contingent, and hence necessary, being. The argument generalizes to all universes whose entities can be divided up into a set of qualitative types with only a finite number of entities falling into each type. Our world is probably like that.

8. Conclusions

The last fifty years of analytic philosophy has focused our attention on three critical questions about cosmological arguments. Each of these questions can receive a plausible answer from a defender of the cosmological argument. Moreover, a cumulative case argument can be run from the number of different principles on which a cosmological argument can be based. There is thus good reason, even on the basis of the cosmological argument alone, to suppose that a God-like being exists.