The Role of Essentially Ordered Causal Series in Avicenna's Proof for the Necessary Existent in the Metaphysics of the Salvation

Celia Byrne

The Role of Essentially Ordered Causal Series in Avicenna's Proof for the Necessary Existent in the Metaphysics of the Salvation, *History of Philosophy Quarterly 36 (2): 121-138. 2019*

https://www.jstor.org/stable/48563640?seq=1

Celia Byrne

Philosophy, MacEwan University, Edmonton, Canada

Celia Byrne, byrnec9@macewan.ca, Department of Humanities, 7-352D, City Centre Campus, 10700 - 104 Avenue, Edmonton, AB T5J 4S2, 780-633-3197

The Role of Essentially Ordered Causal Series in Avicenna's Proof for the Necessary Existent in the Metaphysics of the Salvation

Avicenna's proof for the existence of God (the Necessary Existent) in the Metaphysics of the Salvation relies on the claim that every possible existent shares a common cause. I argue that Avicenna has good reason to hold this claim given that he thinks that (1) every essentially ordered causal series originates in a first, common cause, and that (2) every possible existent belongs to an essentially ordered series. Showing Avicenna's commitment to 1 and 2 also allows me to respond to Herbert Davidson's and Richard Swinburne's claim that Avicenna's proof for the Necessary Existent is incomplete and fallacious.

Keywords: Avicenna; essentially ordered causal series; infinite; Necessary Existent; Principle of Sufficient Reason

Introduction

In the Metaphysics of the Salvation, Avicenna presents an argument for the existence of a single, necessarily existing being, which he calls the Necessary Existent.[1] In this proof, Avicenna considers an infinitely large totality of possible existents.[2] The totality itself cannot be the Necessary Existent, since it depends for its existence on its possible parts.[3] Thus, the totality must either be caused by some possible existent(s) within the totality or a Necessary Existent outside the totality. The crucial premise, which allows Avicenna to rule out the first alternative, is that the cause of the totality must be a single

entity that causes all of the totality's members. In other words, every possible existent shares a common cause.[4] Thus, if the cause of the totality is a possible existent, then it will cause its own existence. For, given that the cause of the totality causes every possible existent, if it were a possible existent, then it would cause itself. This is impossible for a possible existent.[5] Thus, the totality must be caused by a Necessary Existent.[6]

In 1987, Herbert Davidson raised a potentially devastating objection to this argument.[7] According to Davidson, Avicenna's argument is incomplete because it begins with the assumption that every possible existent has a common cause. An obvious alternative is that they do not and every possible existent is caused by another possible existent.[8] For instance, every possibly existing member N of the totality could cause member N+1 and be caused by member N-1. Given that the series is infinite, every member N would have a member N-1 to cause its existence. This appears to be a coherent picture of how the totality could by caused by all its members rather than just one. Certainly, it gives us a picture in which the totality is caused solely by possible existents and in which none of these possible existents cause themselves. Since Avicenna never offers an argument against this alternative, Davidson asserts, his argument fails as a proof for the Necessary Existent.[9]

Davidson, however, is wrong that Avicenna never ruled out this alternative. As I argue below, Avicenna's claim that all possible existents have a common cause is a clear consequence of his account of possible existence, necessary existence, and causation in general. In particular, Avicenna derives his claim for a common cause from two premises: (1) every essentially ordered causal series must originate in a first, common

cause; (2) every causal series of possible existents must be an essentially ordered causal series. Contrary to Davidson, then, Avicenna's argument for the existence of a Necessary Existent does not simply beg the question about a first, common cause for possible existents.

My defense of this reading of Avicenna has three parts. First, I set out Avicenna's reasons for holding premise one above, that is, why all the members of an essentially ordered series must have a common cause. Second, I set out Avicenna's reasons for holding premise two above that is, why possible existents must belong to essentially ordered causal series.[10] Third, I argue that Avicenna's account of essentially ordered causal series allows him to resist an objection raised by Richard Swinburne that such series need not originate in a first cause and that arguments to the contrary commit what Swinburne dubs the 'completist fallacy'. This objection requires a response, for if essentially ordered series do not originate in a first, common cause, then Davidson's objection stands: Avicenna would have assumed rather than proved that all possible existents require a common cause.

The upshot of my argument is that Avicenna's proof for a Necessary Existent is grounded in his view that possible existents must belong to essentially ordered series: this claim is the crucial disagreement between Davidson and Avicenna, not the completeness or incompleteness of Avicenna's argument.

Section 2: In Defense of Premise One: every essentially ordered causal series has a first, common cause.

As stated above, Avicenna holds that if the totality of possible existents is an essentially ordered series, then it must be caused by a single entity that causes the existence of all its members. To see why, we must consider what makes essentially ordered series special.[11]

In an essentially ordered causal series, every cause acts as a cause because it is simultaneously the effect of every preceding member. The classic example of this kind of series is Aristotle's example of a hand that moves a stick, which in turn moves a rock.[12] In this series, the stick by itself is not a sufficient cause for the movement of the rock. Instead, the stick moves the rock only because the hand is simultaneously causing the stick's movement.[13] Furthermore, if the rock causes something else to move, the rock produces this movement only because it was moved by the stick, which was moved by the hand. Thus, the ability of every other member in the series to cause movement ultimately depends on the movement of the first member, in this case, the hand. Furthermore, if the movement of the hand ever ceased, the motion of the entire series would cease as well, for every member N moves member N+1 only because of the motion simultaneously bestowed by its cause.[14] Note that Aristotle is assuming that the cause of motion must be a body exercising a causal capacity.[15] Thus, the hand moves the stick through a causal capacity that it has *per se*, while the stick moves the rock through a capacity that it gains through being moved by the hand.

Essentially ordered causal series are traditionally contrasted with accidentally ordered ones. In an accidentally ordered series, it is not the case that every member is a cause only because it is also an effect. Instead, every member can act as a cause even if its own cause has ceased to act or even to exist. In the classic example of this kind of

series, a grandfather begets a son, and the son, as a father, begets his own son (Aquinas, S.T. I–II, Q46, a2, ad7). In this series, the fact that the father is begotten by the grandfather is accidental to his begetting the son, for he begets the son because he is a man, not because he was begotten by the grandfather. The proof of this is that the father can beget the son even after the death of the grandfather.

Finally, accidentally ordered series can be infinite while essentially ordered series are necessarily finite. In accidental series, each cause is sufficient for its effect apart from the preceding causes. Thus, every effect is sufficiently caused by the member that immediately precedes it, and if the series is infinite, every effect has a member that immediately precedes it. Thus, accidentally ordered series do not need a first cause.[16] Essentially ordered series, however, must end in a first cause, for, as several commentators have pointed out, they must end in a cause that is *per se* sufficient to produce its effect.[17] The reason for this requirement is that each cause in the series gets its causal power from the earlier members of the series. Thus, if the series does not reach a member that has its causal power *per se*, there would be no causal power in the series at all. If, for example, you posited an infinite number of sticks, you could still not account for the movement of the rock, for sticks by themselves have no capacity to generate motion. Only the hand has the capacity *per se*, and it must empower the sticks for them to move the rock. Thus, the series must end with a first cause on which every other cause and effect will depend.

Thus, if possible existents form essentially ordered series, Avicenna is entitled to claim that all possible existents share a common cause, for if they belong to such a series, then no possible existent N could, by itself, be sufficient to cause possible existent N+1.

Rather, N is a sufficient cause only in conjunction with every other cause that precedes it, including the first cause, for this first cause—which is *per se* sufficient for its effect—introduces causal power into the series and enables all further, secondary causes to produce their effects. Thus, if the totality of possible existents is an essentially ordered series, then all of its members will be caused (directly or indirectly) by a single existent that has its causal power *per se*. If, however, possible existents belong to accidentally ordered causal series, then Davidson would be right that the totality could be partially caused by each of its members. For, in an accidentally order series, each member, all by itself, has the power to produce the next. It is clear, then, that essentially ordered causal series require a first, common cause, whereas accidentally ordered ones do not; the crucial question is to which of these series possible existents belong.

Section 3: In Defense of Premise Two: every possible existent belongs to an essentially ordered series

There is some textual evidence within the proof for the Necessary Existent that the totality of possible existents is an essentially ordered series. At the beginning of the proof, Avicenna writes that:

> This is because all of them either exist all together or they do not. If they do not exist all together but rather one after another, then there is nothing infinite at one and the same time (Avicenna, Metaphysics of the Salvation, 215, trans. slightly modified; An-Najāt: Al-Ilāhiyyāt, 567).

This suggests that Avicenna is considering an essentially ordered series here, since he limits his discussion to series in which the causes and effects co-exist. This simultaneity

is one of the hallmarks of an essentially ordered series. As is clear from the quotation above, however, Avicenna imposes this limit to ensure that the series he considers here is an actually infinite totality; ensuring that the series is essentially ordered is simply not mentioned in his rational. Thus, while this limitation suggests that Avicenna is considering essentially ordered series in his proof for the Necessary Existent, it is not conclusive.

The conclusive proof comes from earlier in Book 2 of the Metaphysics of the Salvation where Avicenna discusses the nature of possible existents and causation. In this discussion, he makes three claims that together entail that possible existents belong to essentially ordered causal series. First, whenever a possible existent becomes necessary through another, that necessity must be both bestowed and maintained by that other. Second, no possible existent can exist unless it exists necessarily through another. Third, that other must exist necessarily, either through itself or through another. Again, these three claims entail that possible existents belong to an essentially ordered causal series. For, to cause a possible existent, its cause must exist necessarily. Thus, if this cause is possible *per se*, then it cannot cause its effect *per se*, for necessary existence is a necessary condition for causal efficacy and no possible existent exists necessarily *per se*. Instead, it must be necessitated by another in order to produce its effect. Thus, possible existents can never be causally efficacious *per se* and are causes only insofar as they are effects, which is the defining characteristic of essentially ordered causal series.

These three claims require some justification. To being with, all three are grounded in Avicenna's division of existents into two pairs of mutually exclusive categories. The first pair consists of existents that are possible *per se* and those that are necessary *per se*.

Contrary to the modern view, Avicenna understands the distinction between possible and necessary existents to be mutually exclusive: a necessary existent is one whose non-existence results in a contradiction, and a possible existent is one whose existence, as well as non-existence, does not.[18] Thus, an existent is necessary *per se* when its non-existence results in a contradiction regardless of the existence of anything else. An existent is possible *per se* when neither its non-existence nor existence results in a contradiction, regardless of the existence of anything else.

The second pair of categories is divided between existents that are necessary *per se* and those that are necessary through another. As we saw, an existent is necessary *per se* when its non-existence results in a contradiction, regardless of the existence of anything else. An existent is necessary through another, by contrast, if its non-existence results in a contradiction when some appropriate external condition also exists. To put it another way, a being is necessary through another when its existence is necessitated by another (An-Najāt: Al-Ilāhiyyāt, 546–7; The Salvation: Metaphysics, 211). Again, Avicenna thinks that being necessary through another and necessary *per se* are mutually exclusive, and it is in his argument for why this is the case that we see him assert the first claim that possible existents depend on another to both bestow and maintain their necessary existence. The argument runs as follows:

> Nothing can exist simultaneously as necessary through itself and necessary through another. For, if the other is eliminated or its existence not considered, it must be the case that either the necessity of its existence remains as it was, and so the necessity of its existence is not through another, or the necessity of its existence does not remain, and so the necessity of its existence is not through

itself. (Avicenna, Metaphysics of the Salvation, 212, trans. slightly modified; An-Najāt: Al-Ilāhiyyāt, 547)

This argument assumes that necessary existence must be both bestowed *and* maintained, since it assumes that if existent A is necessary due to B, then if its connection to B ceases, then its necessary existence must as well. For, A's existence is either necessary or possible *per se*. If it is necessary *per se*, then the necessity of its existence cannot be due to B. If it is possible *per se*, then its existence can be necessary only when associated with some other thing B. Otherwise, A would be both necessary because it is A and possible because it is A, which is a contradiction. Thus, any possible existent that becomes necessary is like a moving rock: if what makes it necessary is ever removed, it will cease to be necessary.

Next, Avicenna gives a two-step argument for the second claim that possible existents can exist only if they are necessary through another. In the first step, he writes:

> So, it remains that it in fact has actual existence. In that case, its existence is either necessary or not. If its existence is not necessary, then it is still a possible existent, and its existence is not distinguished (*yatamayyaz*) from its non-existence and there is no difference between this state in it and the first state, since it was a possible existent before the existence [came about], and now it is in the same state as before. (Avicenna, Metaphysics of the Salvation, 212, trans. slightly modified; An-Najāt: Al-Ilāhiyyāt, 548)

The form of the above argument is a straightforward *reductio.* In it, Avicenna supposes

a change has occurred, namely that a possible existent has exchanged its non-existence for existence. After this change, the existent either becomes a necessary existent or remains a possible one. If, however, it remains a possible existent, then the supposed change did not actually take place, for, as Avicenna puts it, if it remains possible, 'then it is still a possible existent, and its existence is not distinguished (*yatamayyaz*) from its non-existence'. Thus, the idea is that a change from non-existence to existence is impossible unless it is accompanied by a change from possible to necessary existence.

This conclusion is motivated by the more general argument that if any new state comes to be, this state must also change from being possible to necessary. He argues as follow:

> If one posits that a new state comes to be, then concerning that state the question stands, namely, does it exist possibly or necessarily? If it is possible, and that state before was itself also possible, then nothing new came to be, whereas if the existence [of the new state] is necessary and it is made necessary for the first [possible existent], then the existence of a state has been made necessary for this first. But that [new] state is nothing other than the emergence [of the thing] into existence, so [it is] its emergence into existence that is necessary (Avicenna, *An-Najāt: Al-Ilāhiyyāt,* 548-9; *Metaphysics of the Salvation*, McGinnis and Reisman (trans. slightly modified), 212).

Again, the argument works as a *reductio*. Avicenna imagines that a new state comes to be. He then imagines that this state, which was possible before it came to be, remains possible. In this case, however, no new state would have come to be when it was supposed that one had. Thus, the new state must have become necessary when it came to be. This step allows Avicenna to conclude that whatever exists must exist necessarily,

for if existence is a new state, then it must become necessary, and so the existence of every possible existent must be necessary whenever it exists.

Why, however, does Avicenna think that it is contradictory for something new to come to be without a change in modality? Now, Avicenna is certainly entitled to say that the change from being a possible non-existent to a possible existent is not a genuine change. After all, a possible existent is the same thing as a possible non-existent. The change, however, from being a possible existent that does not exist to a possible existent that does must be a genuine change. Otherwise, one must maintain that existing and not existing are the same thing. Surely, Avicenna cannot mean this![19]

Avicenna does not mean this, and the confusion about whether he does arises from not understanding how 'distinguished' (*yatamayyaz*) is being used in this context. It is not the case that 'its existence is not distinguished (*yatamayyaz*) from its non-existence' because existence and non-existence are not different from each other. Instead, the possible existent has not been determined to the one or the other. To put it more poetically, if the existent remains a possible existent, then it would remain in a state of equilibrium between existence and non-existence, and no change of state would have occurred to tip the scales in favor of the one or the other. On this reading, then, the *reductio* turns on an appeal to a version of the Principle of Sufficient Reason (henceforth, the PSR). Specifically, on this version every existent needs a sufficient reason for its existence either in its own nature or in the causal efficacy of another existent.[20] For, if the existent remains a possible one, then no change of state would have occurred that necessitates its change from a non-existent to an existent. If, moreover, Avicenna thinks everything needs a sufficient reason for its existence, then

he has his contradiction and he can maintain that nothing new can come to be if it remains a possible existent.

One reason to understand 'distinguished' (*yatamayyaz*) in this way is a similar passage in the Metaphysics of the Healing, where Avicenna uses *yatamayyaz* in the sense of 'tipping the scales'. There, after dismissing the idea that something could exist due to its possibility of existence, Avicenna asks whether it could exist due to its cause's possibility of producing it. He concludes that it could not, since, if the cause had only the possibility of producing its effect, then:

> In being from the cause, the effect's relation to its existence or non-existence would be one and the same. But that whose relation is one and the same to a thing's existence and non-existence being due to it has no greater claim to be the cause than not to be the cause. Indeed, sound reason necessitates that there should exist a state through which the thing's existence from [the cause] and its non-existence from [the cause] are differentiated (*yatamayyaz*). If this state also necessitates this differentiation, and if this state occurs to the cause and exists, then, together, the entity and what has joined it becomes the cause (Avicenna, The Metaphysics of the Healing, 127).

Thus, if the cause has the possibility and only the possibility of producing its effect, then the existence of the cause does not entail the existence of the effect. This is not, however, the kind of relationship that Avicenna thinks a cause should have to its effect. Instead, as he puts it, there must be 'state through which the thing's existence from [the cause] and its non-existence from [the cause] are differentiated (*yatamayyaz*)', and this

state must necessitate this differentiation. Thus, there must be a state that necessitates that the cause produces its effect rather than not. Thus, here we see '*yatamayyaz*' used in the sense of 'differentiated', 'determined' or 'necessitated'.[21]

If we then apply this sense of *yatamayyaz* to the Salvation, it becomes clear that Avicenna never claims that existence and non-existence are the same thing. Rather, he claims that if something's existence is not necessary, then nothing has necessitated its existence as opposed to non-existence. That is, he is pointing to the absence of a state that is sufficient to determine whether the possible existent exists or not. If Avicenna is committed to the PSR, this indeterminacy is incompatible with actual existence.

In fact, we do not need to look outside of the Metaphysics of the Salvation to see that Avicenna is committed to this version of the PSR.[22] For, when discussing possible existents that are necessary through another, Avicenna says that:

> So, it remains that with respect to the thing itself, it exists possibly; with respect to introducing an association with that other, it exists necessarily; and with respect to disrupting the association with that other, it exists impossibly (Avicenna, Metaphysics of the Salvation, 212; An-Najāt: Al-Ilāhiyyāt, 548)

Here, Avicenna states that, in the absence of a condition that necessitates the existence of a possible existent, this possible existent cannot exist. This claim is the inverse of the PSR, for it amounts to the claim that anything that lacks a sufficient reason for its existence cannot exist.

Thus, Avicenna can conclude that everything that exists must exist necessarily because

in the case of every existent, there must be some state that is sufficient to explain why it exists rather than not. The next question is whether this state exists in the possible existent's own nature or in the causal efficacy of another. This brings us to the second step in the argument: showing that this necessity must be due to another. Avicenna argues for this as follow:

> Finally, every possible existent either exists through itself or through some cause. If it is through itself, then it exists necessarily not possibly. If it is through a cause, then either its existence is necessary together with the existence of the cause, or it would stay the way it was before the existence of the cause and that is impossible. (Avicenna, Metaphysics of the Salvation, 213, translation slightly modified; An-Najāt: Al-Ilāhiyyāt, 549).

Thus, the state that necessitates the existence of a possible existent cannot belong to it *per se*, for, if it did, the supposed possible existent would in fact be necessary *per se.* Thus, every possible existent exists due to a cause that bestows and maintains the necessity of its existence. From this, Avicenna's third claim follows that every possibly existing cause must be necessary through another to produce its effect. For, if a given cause is a possible existent, it can exist only when it is necessary through another. Thus, since nothing that does not exist can act as a cause, every possible existent acts as a cause only if it is necessary through another.

Thus, it is now clear why, for Avicenna, the totality of possible existents is an essentially ordered series and must be caused by the Necessary Existent. For, even if we were to posit an infinite number of possible existents, we would still not have arrived at

something that is sufficient for its own existence and, thereby, the existence of the entire series. For, no possible existent can ever be sufficient for its own existence or the existence of its effects. This is the case because necessary existence is a necessary condition for being causally efficacious. No possible existent, however, exists necessarily *per se*. [23] Thus, no possible existent is causally efficacious *per se*. For the entire series to exist, we must posit some being that is sufficient for its own existence, that is, a Necessary Existent. Otherwise, nothing in the series would be causally efficacious *per se* and the existence of the totality would lack a sufficient cause.

To put it another way, a possible existent is like the stick from Aristotle's example. Apart from its cause, the stick does not and cannot move; apart from its cause, a possible existent does not and cannot exist. As a result, apart from its cause, the stick cannot cause anything else to move, and apart from its cause, a possible existent cannot cause anything else to exist. Thus, just as an infinite number of sticks cannot move a rock, so too an infinite number of possible existents cannot cause something to exist. Just as the series of sticks must begin in a hand, so too the series of possible existents must begin in the Necessary Existent. Both series must originate in something that *per se* has the power to cause its effect and empower all the intermediate causes in the series. After all, you can't give what you haven't got.

Finally, I wish to end this section with a brief discussion of the role that the PSR plays in Avicenna's proof. In his discussion of Aquinas's five ways, Caleb Cohoe rightly points out that the PSR is not needed to show that essentially ordered series are finite. Instead, all that is needed is the much weaker principle "that an effect, insofar, as it is an effect, must have a cause capable of producing it" (Cohoe, There Must be a First, 840).

This is enough to grant that essentially ordered series must be finite, since by definition, only the first member of the series is sufficient to cause the existence of the effect. As Cohoe also points out, however, this principle gives us no reason to believe that a given existent is an effect, or why something would only be a cause insofar as it is an effect.[24] This is what the PSR achieves for Avicenna. It is the PSR that establishes that no possible existent could exist in the absence of a state that necessitates its existence. This state cannot be internal to the possible existent, or else it would exist necessarily *per se*. Thus, it is the PSR that establishes that every possible existence needs a cause for its existence. The PSR also establishes that every possible existence is a cause insofar as it is an effect, for causes must first exist to be causally efficacious, but no possible existent exists *per se*. Thus, following the PSR, possible existents need a sufficient cause for their existence and, thereby, their causal efficacy. Thus, while Avicenna does not need the PSR to show that essentially ordered series are finite, he does need the PSR to show that there are essentially ordered series.

Section 4: A Reply to Swinburne

In the previous section, I argued that since the totality of possible existents is an essentially ordered series, it must originate in a first cause. Not all scholars, however, agree that essentially ordered series need a first cause. According to Richard Swinburne, this conclusion rests on what he dubs the 'completist fallacy'.[25] The completist fallacy is the assumption that an explanation C of an effect E cannot explain E's existence if C has an explanation for its existence. Moreover, as Swinburne contends, we cannot conclude that essentially ordered series needs a first cause without this assumption because:

> Surely if *C* causes *E*, *C* really does explain the occurrence of *E*, even if *C* itself needs explanation. Consider a long railway train in which each truck makes the next truck move. The motion of the last truck is certainly fully explained by the motion of the last truck but one, even if there are other things to be explained (Swinburne, The Existence of God, 90–2).

To conclude that the above essentially ordered series of moving causes is necessarily finite, it must be the case that, since Truck N's motion is caused by Truck N-1's, then Truck N's motion is an insufficient explanation of Truck N+1's motion. Only if this is the case can we conclude that the series must end in some un-moved moving truck. Furthermore, according to Swinburne, we can only conclude that Truck N's motion is an insufficient explanation of Truck N+1's motion if we use the completist fallacy. That is, we must conclude that the motion of Truck N is an insufficient explanation solely because it is explained by the motion of Truck N-1. Again, Swinburne argues, this reasoning is fallacious. Thus, he concludes that proofs for a first moving cause such as Aquinas' are failures.

While Swinburne does not discuss Avicenna's modal proof for the Necessary Existent, his objection could still tell against it. Suppose Swinburne described the cause of possible existent P as the existence of possible existent P-1. Under this description, Swinburne could argue that the series of possible existents could be infinite, for the existence of P would have a sufficient cause in the existence of P-1, and since the series is infinite, every P will have a sufficient cause. Again, it seems to Swinburne, the only way we can deny that the existence of P-1 is sufficient for existence of P is if we use the completist fallacy.

This argument, however, does not show that an essentially ordered series does not need a first cause. Instead, in Swinburne's train example, he has taken a series that Aquinas thinks of as essentially ordered, and re-described it as accidentally ordered: in Swinburne's example, the motion of Truck N-1 by itself is sufficient for the motion of Truck N. The motion of each truck is explained by the motion of the antecedent truck, but the motion's power to move the following truck requires no explanation. Thus, Swinburne has begged the question against Aquinas; he has attributed to the moving causes—the motion of each truck in the train—the power of moving the subsequent truck independent of the motion of the preceding trucks. In effect, Swinburne's objection is not that Aquinas has misunderstood the need of essentially ordered series for a first cause, but that Aquinas has mistakenly identified accidentally ordered causal series as essentially ordered.

Aquinas, however, would not accept Swinburne's re-description of a series of movers as an accidentally ordered series because he would reject Swinburne's identification of the cause of Truck N's motion as Truck N-1's *motion*. For Aquinas, the cause of motion must be a *body* exercising a causal power, not another motion.[26] Consequently, the cause of the motion of Truck N must be *Truck N-1* plus the exercise of its causal power, not Truck N-1's *motion*. Once, however, we specify that the cause of Truck N's motion is Truck N-1 plus the exercise of its causal power, rather than just the motion of Truck N-1, we cease to have an explanation of Truck N's motion. For, on its own, Truck N-1 has no power to cause motion. Instead, Truck N-1 gains this power by being moved by Truck N-2. Thus, if the cause of motion must be a body exercising a certain causal

capacity, and bodies gain this causal capacity only insofar as they are moved, then moving bodies must belong to finite, essentially ordered causal series.

Likewise, Avicenna would object to identifying the cause of the existence of possible existent P as the existence of possible existent P-1. For just as the proper cause of motion is a body exercising a certain causal power, so too the cause of existence is an existent exercising a certain causal power.[27] Thus, if I want to explain the existence of my cat, the cause would be her *molecules* exercising their causal powers, rather than just the *existence* of her molecules. If, however, her molecules are possible *per se*, then they are not *per se* sufficient for her existence, for possible existents can only exist when they are necessary through another; a possible existent considered *per se*, in the absence of its cause, does not and cannot exist. Thus, no possible existent can ever explain an effect, as there is nothing about a possible existent that entails that it must exist and exercise its power to bring about that effect. This inability explains why every series of possible existents must terminate in a Necessary Existent. Only a Necessary Existent exists *per se* and is, therefore, causally efficacious *per se*. Without a Necessary Existent, possible existents are powerless.

Conclusion

There is a sense in which Swinburne's objection is an extension of Davidson's. Davidson wants to know why possible existents cannot form accidentally ordered series, and Swinburne insists that they do. As we have seen, Avicenna has the resources to answer both Davidson's question and Swinburne's assertion. The hallmark of essentially ordered series is that their members are causes only insofar as they are

effects. The members of such series require causes that explain their efficacy as well as their existence. A possible existent can only exist and act as a cause when its existence is necessary. No possible existent, however, can be necessary *per se*. Instead, whenever it exists and acts as a cause, it does so because it is necessary through another. Thus, possible existents are causes only insofar as they are effects and therefore must belong to essentially rather than accidentally ordered series. Avicenna has at least a deductively valid argument that he can give in response to Davidson and Swinburne. As we saw in Sections 3 and 4, however, this argument is built on two premises that many modern philosophers would find difficult to accept: the PSR, and the view that a cause is a being with causal powers. Thus, while Avicenna's argument is no doubt deductively valid, whether it is sound remains an open question.

---

[1] This paper considers only the proof in the Metaphysics of the Salvation. There is still a great deal of scholarly controversy about where Avicenna proves the existence of the Necessary Existent in the Metaphysics of the Healing and what the nature of this proof is. For an excellent summary of the state of the debate so far, see De Haan (2016, 97–128).

[2] The totality that Avicenna considers here is an infinite totality of simultaneously existing things. It seems that Avicenna is allowing this totality to exist *per impossibile*, for in other proofs for the Necessary Existent, he argues that such a totality is impossible because it would violate the principle that there cannot be an actual infinity. This principle, as we will see, does not play a role in this proof. For instances when

Avicenna does use this principle, see Avicenna (1980, Appendix A); (2005, 8.1.9, p. 259); (2010 3.8. p. 325–336). For a discussion in the secondary literature, see Mayer (2001, 32–33) and Marmura (1980, 349).

[3] Al-Ghazālī thinks that this inference either begs the question or falls prey to the fallacy of composition (the fallacy that wholes always share the properties of their parts). As Mayer has argued, however, Avicenna is just making a straightforward *a fortiori* argument: if the totality depends on its parts and the parts are possible, then the totality must be possible as well. Following the Classical Islamic philosopher Fakhr al-Dīn al-Rāzī, Davidson has also argued that this inference turns on the assumption that parts and wholes are distinct. Thus, since wholes and their parts are distinct existents and wholes cannot exist without their parts, no whole can be necessary *per se*. At best, they can exist necessarily due to the existence of their parts. Thus, *contra* Al-Ghazālī, Avicenna does not have to beg the question or use the fallacy of composition to argue that the totality is possible and needs a cause. See Al-Ghazālī (2000, 81–2); Mayer (2001, 38); Davidson (1987*,* 296); Fakhr al-Dīn al-Rāzī (2005*,* 348).

[4] Avicenna (1985, 568; 2007, 215).

[5] For a detailed exegesis of the proof, see Davidson (1987, 281-307); McGinnis (2010, 159-168)

[6] In other sections of the Salvation, Avicenna argues that by virtue of existing necessarily *per se*, the Necessary Existent has the traditional features of a monotheistic deity. For example, it is uncaused, unique, and simple. See Avicenna (1985, 457–8; 551–552); (2004, 212; 214). For a discussion of the attributes of the Necessary Existent, see Davidson (1987, 289–298); McGinnis (2010, 171–3) Adamson (2013).

[7] This objection has yet to be addressed in the secondary literature on Avicenna's proof. Scholars, however, have defended Aquinas' arguments for the existence of a first efficient cause from similar objections. See, for example, Cohoe (2013); Kerr, (2012); Kretzmann (1997, 99–109).

[8] For Hume's original version of this objection, see Hume (2007, 63–4).

[9]It is not entirely true, however, that Avicenna does not consider this possibility (that each member of the series is a partial cause of the existence of the whole). Avicenna considers this possibility in the Remarks and Admonitions, but there he merely quips that 'Or else it needs a cause which is the individuals all together… As for 'all' in the sense of each individual – the aggregate is not necessitated by it.' See Avicenna, Remarks and Admonitions, 3.4.12, p. 23.

[10] Therese-Ann Druart argues that, given Avicenna's repeated claims that some causes must co-exist with their effects, he must hold that there are essentially ordered causal series. This claim is correct, but it does not explain why Avicenna is committed to the existence of essentially ordered causal series in the first place, that is, why some causes must co-exist with their effects. See Druart (2002, 262)

[11] Essentially ordered causal series are considered by philosophers as diverse as Al-Kindī, Averroes, Aquinas and Scotus. See Al-Kindī (1997, 169-71); Averroes (1930, 45, 70–73, 219–220); Aquinas (1964, Q. 2, a. 10); (1920-22, S. T., I-I, Q. 46, a. 2, ad. 7); (1996, Quodlibet 9, q. 1); Scotus (1982, 1, 3.10–11). For a discussion of the distinction in Arabic philosophy, see Taylor (2012, 225–35). For a general discussion of essentially and accidentally ordered causal series in Medieval Latin philosophy and how

they preclude infinite causal regresses, see Cohoe (2013); Kerr, (2012); Kretzmann (1997, 99–109). For a discussion of this distinction in Scotus' philosophy, see Cross (1999, 15–23) and King (2003, 40–42).

[12] Aristotle, Physics 8.5, 256a5–21. This example is also used by Thomas Aquinas, see S.T. I-I, Q. 46, a. 2, ad 7.

[13] This shows why Druart is right that necessary co-existence of causes and effects in a series is a sign that it is essentially ordered. This also shows, however, that the co-existence of cause and effect in an essentially ordered series is a result of a more fundamental characteristic: that its members act as causes only insofar as they are effects.

[14] For other examples of this kind of series, see Cohoe (2013, 848–9).

[15] Kerr, in his work on essentially ordered causal series also emphasizes that the causes he considers are things with powers. See Kerr (2012, 543-44). Avicenna also adopts the Aristotelian view that bodies with powers are what cause motion. See, for example Avicenna (2005, 6.1.6, 196; 6.2.14, 205).

[16] For Avicenna, while causes of existence must be essentially ordered and finite, causes of coming to be are accidentally ordered and must be infinite. See Avicenna (2005, 6.2.6, 202)

[17] Much of the current debate on this topic is in the context of Aquinas' proofs for the existence of God: see Cohoe (2013, 838–856); Kretzmann (1997, 99–109).

[18] Avicenna does recognize that there is a sense of the 'necessary' as a subset of the 'possible'. This is *not*, however, the sense of 'possible' and 'necessary' that is at work in his proof. See Avicenna (1985, 546–7); (2007, 211)

[19] This also directly contradicts a statement in The Metaphysics of the Healing. See Avicenna, (2005 1.6.4, 31).

[20] This version of the PSR is similar to the version that William Rowe and Norman Kretzman attribute to Aquinas. See Rowe (1975, 261); Kretzman (1997, 107). In the Metaphysics of the Healing, Avicenna makes is clear that this version of the PSR applies to a thing's non-existence as well. See Avicenna (2005, 31).

[21] There are several other instances in the Metaphysics of the Healing where Avicenna uses 'distinguished' (*yatamayyaz*) in the same way (Avicenna, Metaphysics of the Healing, 4.2.18, 137; 9.2.7, 310).

[22] Kara Richardson has done a very thorough job of showing how the Principle of Sufficient Reason is at work in The Metaphysics of the Healing. She does not, however, discuss its use in The Metaphysics of the Salvation. See Richardson (2014, 743–768).

[23] I do not think that this commits Avicenna to the existence of non-actual possible objects, for in the Metaphysics of the Healing Avicenna argues that non-existent objects are objects that exist only in the mind. Thus, when he says of an object that it can exist or not, we can understand him as claiming that it can exist in the mind and the world or just in the mind (Avicenna, The Metaphysics of the Healing, 1.5.12, 25).

[24] Cohoe does not discuss why Aquinas think causes of motion, existence, etc. belong to essentially ordered series.

[25] Richard Cross accepts this as a devastating objection to John Duns Scotus' modal proof for a first cause of being; see Cross (1999,19–20; Ch. 2, n. 12.) More recent discussions of Aquinas' proof in particular, or essentially ordered causal series in general, make no mention of this objection. See Cohoe (2013); Kerr (2012)*;* Kretzmann (1997, 99–109).

[26] See n. 15.

[27] See Avicenna's discussion on power and potency in The Metaphysics of the Healing, Chapter 4.2, especially, 137–138.

Bibliography

Adamson, Peter. 2013. “From the Necessary Existent to God.” In Interpreting Avicenna, edited by Peter Adamson, 170–189. Cambridge: Cambridge University Press.

Al-Ghazālī. 2000. The Incoherence of the Philosophers. Translated, introduced, and annotated by Michael Marmura. Provo (Utah): Brigham Young University Press.

Al-Kindī. 1997. “The One True and Complete Agent and the Incomplete Metaphorical Agent.” In Oeuvres philosophiques et scientifiques d’al-Kindī, edited and French translation by Roshdi Rashed and Jean Jolivet, 169–71. Leiden: Brill.

Al-Rāzī, Fakhr al-Dīn. 2005. Sharḥ al-ishārāt wa al-tanbīhāt (Commentary on the Remarks and Admonitions), edited by ʻAlī Riẓā Najafʾzādah. Tehran: Anjuman-i Āsār va Mafākhir-i Farha.

Aquinas, Thomas. 1920–1922. Summa Theologica (S.T.). Translated by Fathers of the English Dominican Province. London: Burns Oates and Washbourne.

Aquinas, Thomas. 1952. The Disputed Questions on Truth. Translated by Robert Mulligan. Chicago: Henry Regnery Company.

Aquinas, Thomas. 1964. Quaestiones disputatae S. Thomae Aquinatis. Vol. 2, 10th ed. Turin: Marietti.

Aquinas, Thomas. 1996. Quaestiones de quolibet. Vol. 25, Sancti Thomae de Aquino Opere Omnia. Rome: Commissio Leonina.

Aristotle. 1999. Physics, Book VIII. Translated with commentary by Daniel W. Graham. Oxford: Clarendon Press.

Averroes. 1930. Tahāfut al-Tahāfut (the Incoherence of the Incoherence), edited by Maurice Bouyges. Beirut: Imprimerie Catholique.

Averroes. 2008. The Incoherence of the Incoherence. Translated by Simon Van Den Bergh. Cambridge: E.J.W. Gibb Memorial Trust.

Avicenna.1957. al-Išārāt wa-l-Tanbīhāt li-Abī ʿAlī ibn Sīnā maʿa šarḥ Naṣīr al-Dīn al-Ṭūsī (The Remarks and Admonitions by Ibn Sina with the commentary of Nasir al-Din al Tusi), edited by S. Dunyā. al-Qāhira [Cairo]: Dār al-Maʿārif, 1957.

Avicenna.1980. al-Risāla al ’Arshiyya. In Marmura, Michael. 1980. “Avicenna’s Proof from Contingency for God’s Existence in the Metaphysics of the Shifa.” Mediaeval Studies 43: 337–52, Appendix A.

Avicenna. 1985. An-Najāt: Ilāhiyyāt (The Salvation: Metaphysics), edited by Muhammad Dänishpäzhüh. Tehran: Dänishgäh-yi Tihrän. Selections translated in McGinnis, Jon, Riesman, David, eds. and trans. 2007. Classical Arabic Philosophy: An

Anthology of Sources. 209–19. Indianapolis: Hackett.

Avicenna. 2005. The Metaphysics of the Healing. Translated, introduced, and annotated by Michael Marmura. Provo: Brigham Young University Press.

Avicenna. 2010. The Physics of the Healing. Translated, introduced, and annotated by Jon McGinnis. Provo: Brigham Young University Press.

Avicenna. 2014. Ibn Sina's Remarks and Admonitions: Physics and Metaphysics. Translated and edited by Shams Inati. New York: Columbia University Press.

Cohoe, Caleb. 2013. "There must be a First: Why Thomas Aquinas Rejects Infinite, Essentially Ordered, Causal Series." British Journal for the History of Philosophy 21, no.5: 838–856.

Cross, Richard. 1999. Duns Scotus. New York : Oxford University Press.

Davidson, Herbert. 1987. Proofs for Eternity, Creation and the Existence of God in Medieval Islamic and Jewish Philosophy. Oxford: Oxford University Press.

De Haan, Daniel. 2016. "Where does Avicenna demonstrate the Existence of God?" Arabic Sciences and Philosophy 26: 97–128.

Druart, Therese-Anne. 2002. "Avicenna's influence on Duns Scotus' proof for the existence of God in the *Lectura*." In Avicenna and His Heritage: Acts of the International Colloquium, edited by Jules Janssens and Daniel De Smet, 253–66. Leuven: Leuven University Press.

Duns Scotus, John. 1982. A Treatise on God as First Principle. Translated and edited with commentary by Allan B. Wolter. Chicago: Franciscan Herald Press.

Hume, David. 2007. Dialogues Concerning Natural Religion and Other Writings, edited by Dorothy Coleman. Cambridge: Cambridge University Press.

Johnson, Steve. 1984. "A fourth ontological argument in Ibn Sīnā's metaphysics." Muslim World 74, no.3–4:161–71.

Kerr, Gaven. 2012. "Essentially Ordered Series Reconsidered." American Catholic Philosophical Quarterly 86, no. 4: 541–55.

King, Peter. 2003 "Scotus on Metaphysics." In the Cambridge Companion to Duns Scotus, edited by Thomas Williams, 15–69. Cambridge: Cambridge University Press.

Kretzmann, Norman. 1997. The Metaphysics of Theism: Aquinas's Natural Theology in *Summa Contra Gentiles I*. Oxford: Clarendon Press.

Marmura, Michael. 1980. "Avicenna's Proof from Contingency for God's Existence in the Metaphysics of the Shifa." Mediaeval Studies 43: 337–52.

Mayer, Toby. 2001. “Ibn Sīnā’s Burhān al-Ṣiddīqīn.” Journal of Islamic Studies 12: 18–39.

McGinnis, Jon. 2010. Avicenna. Oxford: Oxford University Press.

Morewedge, Parviz. 1970. “Ibn Sīnā (Avicenna) and Malcolm and the ontological argument.” The Monist 54, no. 2: 234–49.

Morewedge, P. 1979. “A third version of the ontological argument in the Ibn Sinian Metaphysics.” In Islamic Philosophical Theology, edited by Parviz Morewedge, 188–222. Albany: State University of New York Press.

Richardson, Kara. 2014. “Avicenna and the Principle of Sufficient Reason.” Review of Metaphysics 67, no. 4: 743–768.

Rowe, William. 1975. The Cosmological Argument. Princeton: Princeton University Press.

Swinburne, Richard. 2004. The Existence of God. Oxford: Clarendon Press.

Taylor, Richard. 2012. “Primary and Secondary Causality.” In Routledge Companion to Islamic Philosophy, edited by Richard C. Taylor and Luis Xavier López-Farjeat, 225–35. London: Routledge, 2012.