Strong vs Weak Necessitarianism: An Avicennian Defense of The Principle of Sufficient Reason

Hashem Morvarid

[hmorvar1@jh.edu](mailto:hmorvar1@jh.edu)

Abstract: One common objection against the Principle of Sufficient Reason is that it leads to a highly counterintuitive position, namely, necessitarianism. In this paper, drawing on Avicenna’s modal theory, I differentiate between two versions of necessitarianism: strong necessitarianism and weak necessitarianism. I argue that the modal intuition driving this objection pertains to strong necessitarianism, while the Principle of Sufficient Reason, at most, leads to weak necessitarianism.

Keywords: The Principle of Sufficient Reason, Necessitarianism, Avicenna’s Modal Theory, Modal Intuitions

1. The Anti-Necessitarian Argument Against PSR

According to the Principle of Sufficient Reason (henceforth PSR), every truth has a sufficient explanation. As noted by Melamed and Lin 2023 and Pruss 2006, there exist various versions of PSR that arise from different restrictions of the principle, attributions of varying degrees of modal strength to it, and different interpretations of the term “sufficient.” For the purposes of this discussion, I take the quantifier of the principle to range over all truths, and I understand “p is a sufficient explanation of q” to imply “p necessitates q.” I leave the other modifications undecided, as they are not necessary for my discussion.

One prevalent objection against PSR is its purported lead to a highly counterintuitive position, namely, necessitarianism. For example, van Inwagen says:

… if the Principle [of Sufficient Reason] is true, every truth is a necessary truth. Such propositions as “Stockholm is the capital of Sweden” and “Mars has two moons” and “Spiders have eight legs” and “British forces under the command of Lord Elgin burned the Summer Palace at Pekin in 1860” would be necessary truths in the same sense as that in which “5 + 7 = 12” and “There are no liquid wine bottles” are necessary truths. But this is absurd. We must therefore conclude that the Principle of Sufficient Reason is false. (van Inwagen 2015: 167)[[1]](#footnote-1)

The objection can be formulated as a two-premise argument against PSR:

(Anti-Necessitarian Argument)

(1) PSR entails necessitarianism.

(2) Necessitarianism is highly counterintuitive.

(3) Therefore, PSR is implausible.

Discussions surrounding the argument have predominantly revolved around premise (1). Bennett (1984: 115), Della Rocca (2010: 9, ft. 13), Francken and Geirsson (1999), Ross (1969: 295-304), Rowe (1984: 362-4; 1975: 103-7), and van Inwagen (1983: 202-204) have presented arguments—or rather variations of the same argument— to demonstrate that PSR entails necessitarianism. Conversely, Hill (1982), Levey (2016), and Pruss (2006: 103-125) have contested such arguments by questioning different premises of the arguments. Nevertheless, both sides of the debate exhibit sympathy towards premise (2). Even those who embrace necessitarianism as a consequence of their adherence to PSR, such as Della Rocca (2010: 9-10), share the intuition underlying premise (2) but dismiss it because they believe this intuition is outweighed by considerations in favor of necessitarianism.

In this paper, my aim is to examine premise (2). I argue that premise (2) harbors ambiguity. Under one interpretation, premise (2) is not true or, at the very least, not evidently so. Under another interpretation, premise (2) holds true, yet the argument ceases to maintain validity. This ambiguity stems from a distinction articulated by Avicenna in classical Islamic philosophy, and subsequently revisited in contemporary analytic metaphysics by Correia (2007) and Fine (1994), among others, between two notions of necessity: necessary in itself and necessary through another.

Here is the plan of the paper. First, I introduce Avicenna’s distinction between these two notions of necessity. Following that, I review two versions of necessitarianism that emerge from the distinction: strong necessitarianism vs weak necessitarianism. Finally, I examine the implication of the latter distinction for premise (2).

Before moving to the next section, it is important to acknowledge that the current argument against PSR is just one among several. There exist additional arguments against PSR that are based on considerations for libertarian free will and considerations for quantum indeterminacies. A comprehensive defense of PSR would address these other arguments too. However, I will not discuss these other arguments in this paper.

2. Avicenna on Necessity-in-Itself vs Necessity-Through-Another

On the modal structure of reality, Avicenna writes:

The things that enter existence bear a twofold division in the mind. Among them there will be that which, when considered in itself, its existence would be not necessary. It is [moreover] clear that its existence would also not be impossible, since otherwise it would not enter existence. This thing is within the bound of possibility. There will also be among them that which, when considered in itself, its existence would be necessary. . . Moreover, whatever is possible in existence when considered in itself, its existence and nonexistence are both due to a cause . . . [Therefore, the possible in itself] must become necessary through a cause and with respect to it . . . Hence, it has been shown to be true that whatever is possible in its existence does not exist unless rendered necessary with respect to its cause. (Avicenna 2005: 29-32)

In this passage, Avicenna delineates two notions of a necessary being: 1) a being that is necessary in itself (*wājib al-wujūd bi-l-dhāt*), and 2) a being that is necessary through another (*wājib al-wujūd bi-l-ghayr*). A being is necessary in itself iff its existence is guaranteed by its mere essence.[[2]](#footnote-2) (It is crucial to note that the notion of essence at play here is not the modal notion of essence, which is defined in terms of metaphysical necessity. Otherwise, the distinction between *wājib al-wujūd bi-l-dhāt* and *wājib al-wujūd bi-l-ghayr* would collapse, as both are metaphysically necessary. Instead, the notion of essence at work here is the Aristotelian notion of essence. For a recent discussion and defense of such a notion, see Fine 1994.) A being is necessary through another if it is deterministically caused by a necessary being. Avicenna maintains that God is the sole necessary being in itself, while all other beings are, either immediately or mediately, necessary through God (Avicenna 2005: 32-34, 303; 2013a: 266-9, 271-2). As I am concerned here with Avicenna’s conceptual distinction between the two foregoing notions of necessary being, I will not discuss his view about the extension of the two notions further.

On Avicenna’s view, the distinction between necessity in itself and necessity through another is not limited to existential propositions, namely, propositions of the form “x exists,” but also extends to other categorical propositions (*ḥamliyyāt*). For, according to his analysis, all categorical predications are, in essence, claims about existence. Thus, every proposition of the form “x is F” is analyzed as “x *exists* as F” (Bäck 1987). Regardless of whether we agree with Avicenna on the latter point or not, we can naturally generalize the distinction. That is, we can say that for any object x, and any property F, either the essence of x guarantees that x is F, or it does not. If x’s essence guarantees that x is F, then x’s being F is necessary in itself. If, on the other hand, x’s essence does not guarantee that x is F, then either x’s essence guarantees that x is not F, or it does not. If x’s essence guarantees that x is not F, then x’s not being F is necessary in itself. If, finally, x’s essence guarantees neither that x is F nor that x is not F, then x’s being F and x’s not being F are both possible in themselves. If a state of affairs that is possible in itself is necessitated by extraneous factors, then it is necessary through another. (In this paper, I use “proposition” and “state of affairs” interchangeably, and so I switch between them freely.) Hence, we can establish a distinction between two notions of necessity, which we may term “necessity-in-itself” and “necessity-through-another,” respectively. A necessity-in-itself is a necessary truth that is grounded in the essence of the objects involved in the truth, whereas a necessity-through-another is a necessary truth that is grounded in external necessitating factors.[[3]](#footnote-3)

There are at least two types of necessitating extraneous factors: (i) essences of non-pertinent objects, and (ii) necessitating causal relations. For example, the necessity that Socrates is such that 2 + 2 = 4 is a case of (i), as it is grounded in the essences of 2 and 4, which are not pertinent to Socrates’ nature. Assuming that Socrates’ existence is deterministically caused by a necessary God—as Avicenna posits—that he exists exemplifies case (ii), as it is grounded in a necessitating causal relation. While recent literature on necessities-through-another has focused on type (i),[[4]](#footnote-4) Avicenna deliberated upon type (ii).

In addition to the two qualified notions of necessity, namely necessity-in-itself and necessity-through-another, there exists a notion of necessity *simpliciter*. It is the notion of just plain necessity, which is, as it were, insensitive to the source of the necessity, and this notion is the one represented by standard modal logics such as S5.[[5]](#footnote-5) This unqualified notion of necessity is the disjunction of the two qualified notions of necessity. Thus, a truth is a necessity *simpliciter* iff it is either a necessity-in-itself or a necessity-through-another.[[6]](#footnote-6) The question of whether the unqualified notion is more fundamental and the other two qualified notions are defined in its terms, or vice versa, remains open for debate. However, we need not resolve this question for the purposes of this paper.

The above Avicennian division of necessities into necessities-in-themselves and necessities-through-another presupposes that all necessities have a ground or explanation, whether internal or external. However, some philosophers have argued that certain necessities have no explanation. For instance, they contend that the Four-Color Theorem—which states that given any division of a plane into contiguous regions, the regions can be colored with at most four colors so that no two adjacent regions have the same color—has no explanation but is merely a coincidental necessity (see, e.g., Almotahari 2011: 57-67; Baker 2009; Lange 2010). If their argument holds, then there exist three types of necessities: necessities-in-themselves, necessities-through-another, and unexplained necessities. The notion of necessity *simpliciter* would then be a disjunction of these three types. Nevertheless, the assumption of the Avicennian two-fold division is not vital for my argument below. As we will soon see, it can be reformulated without this assumption. For simplicity, however, I will keep the assumption.

3. The Anti-Necessitarian Argument Revisited

We are now in a position to evaluate the anti-necessitarian argument against PSR. As you will recall, the argument goes as follows:

(1) PSR entails necessitarianism.

(2) Necessitarianism is highly counterintuitive.

(3) Therefore, PSR is implausible.

As discussed in the previous section, there are two distinct notions of necessity: 1) necessity-in-itself, and 2) necessity-through-another. In accordance with these two notions of necessity, emerge two versions of necessitarianism:

*Strong Necessitarianism*: every truth is a necessity-in-itself;

*Weak Necessitarianism*: every truth is either a necessity-in-itself or a necessity-through-another.

In premise (1), “necessitarianism” means weak necessitarianism. For PSR states that every truth is sufficiently explained, but it is silent on whether the explanation comes from the essences of the involved objects or from external reasons. But what is meant by “necessitarianism” in premise (2)? If it means weak necessitarianism, then, as I shall shortly argue, premise (2) is not true or, at the very least, not evidently so. On the other hand, if strong necessitarianism is meant, then although premise (2) is true, the argument is rendered invalid because “necessitarianism” is used in two different senses in premise (1) and (2).

In the earlier quotation, van Inwagen considers the propositions that Stockholm is the capital of Sweden, Mars has two moons, spiders have eight legs, and British forces under the command of Lord Elgin burned the Summer Palace at Pekin in 1860, and contrasts them to the propositions that 5 + 7 = 12 and there are no liquid wine bottles. He argues that intuitively these two groups of propositions are not, in the same sense of the word, necessary truths (van Inwagen 2015: 167). But in what sense of the word, are the latter group of propositions necessary truths? They are necessities-in-themselves, as they are true in virtue of the essences of the involved objects. Thus, it is part of the essences of 5, 7, and 12 that the equality should hold. Similarly, it is part of what it is to be a wine bottle to be solid. In contrast, the former group of propositions are possible-in-themselves. There is nothing in the nature of Stokholm or Sweden that requires the former to be the capital of the latter. It is compatible with the essence of Mars that it has more than two moons or less than two moons. Nothing in the nature of spiders demands that they have exactly eight legs—though this claim is perhaps more controversial, as some might hold that having eight legs is part of the essence of the species. Finally, it is neither contrary to the nature of British forces under the command of Lord Elgin nor contrary to the nature of the Summer Palace at Pekin that they do not burn it in 1860. Therefore, the intuitions at work here concern what is a necessity-in-itself and what is possible-in-itself, and so it can, at the most, refute strong necessitarianism, namely, the view that every truth is a necessity-in-itself.

Do we have the same modal intuitions when we consider things, not only in themselves, but also in relation to all other things? Specifically, given their causes, could things have transpired differently? It is not obvious that they could. For example, considering that Stokholm was caused to be the capital of Sweden, it is not obvious that Stockholm could have failed to be the capital of Sweden. Note that I am not assuming that causal relations are deterministic, or that the chain of causes terminates in a necessary being. All I am assuming is that it is epistemically possible that causal relations are deterministic, and that the chain of causes ends in a necessary being. These epistemic possibilities are sufficient for the anti-necessitarian intuitions to diminish. Yes, if, like Avicenna, we have a deterministic conception of causation and we hold that a necessary being is the prime cause of everything, then we would have a clear intuition that Stockholm couldn’t have failed to be the capital of Sweden. More generally, we would have a clear intuition that everything must be the way it actually is (see Avicenna 2013b: 333 and 2005: 262-3 for a hint at such a view; see also Belo 2007). But for my argument to work, we don’t need to have this intuition; all we need is that we do not have the opposite intuition, namely, the intuition that things could have failed to be the way they are.

We can regiment our talk of the foregoing two sets of intuitions—intuitions about necessary in itself and possible in itself and intuitions about necessary through another and possible through another—by adopting the helpful notation introduced by Correia (2007: 67-71). Let us use “□L (x1, x2, … xn)”—where the subscript “L” stands for local—to express the proposition that (x1, x2, … xn) is intrinsically necessary, namely, necessary in virtue of the essences of x1, x2, … xn; and let us use “□G (x1, x2, … xn)”—where the subscript “G” stands for global—to express the proposition that (x1, x2, … xn) is either intrinsically necessary or extrinsically necessary, namely, necessary in virtue of the essences of non-permanent objects or necessitating causal relations. (For a possible world semantics of □L and □G, see Corriea 2007: 71-7) With this notation, strong necessitarianism can be formulated as the position that for all true propositions p, □L p, while weak necessitarianism can be formulated as the position that for all true propositions p, □G p. The first set of intuitions that we considered, and I argued that we do possess, have propositions of the form “□L p” as their content. For instance, it is intuitively true that □L 5 + 7 = 12, and intuitively false that □L Stockholm is the capital of Sweden. On the other hand, the second set of intuitions that we considered, and I argued that we don’t evidently possess, involve propositions of the form “□G p” as their content. For example, we don’t evidently possess the intuition that it is false that □G Stockholm is the capital of Sweden. It would not be inconsistent of us to have the intuition that it is false that □L Stockholm is the capital of Sweden and lack the intuition that it is false that □G Stockholm is the capital of Sweden because the falsity of “□L Stockholm is the capital of Sweden” is consistent with the truth of “□G Stockholm is the capital of Sweden.”

It might be helpful to compare my response to our purportedly anti-necessitarian intuitions with a recent response by Shamik Dasgupta. In his (2016: 404), Dasgupta considers and dismisses the anti-necessitarian intuitions, but his approach differs from mine. He argues that inquiries into the modal status of states of affairs should be resolved through empirical investigations rather than relying solely on armchair intuitions. Therefore, even if our armchair intuition suggests that my chair could have been slightly to the left of its actual position, the determination of whether this could genuinely have occurred must be settled through empirical investigations into the chair’s physical composition and the structure of space-time. In contrast, I propose to refine our purportedly anti-necessitarian armchair intuitions by (1) distinguishing between intuitions that have propositions of the form “□L p” as their content and intuitions that are about propositions with the form “□G p,” and (2) informing the latter armchair intuitions with epistemically possibly necessitating extraneous factors, particularly epistemically possibly necessitating causal relations. With this distinction and information, I hope it becomes evident that those armchair intuitions which are strongly anti-necessitarian—such as the intuition it is false that □L Stockholm is the capital of Sweden—do not challenge PSR, while those anti-necessitarian intuitions that could potentially challenge PSR—namely, intuitions that are about propositions with the form “□G p”—are not vividly anti-necessitarian. Note once again that we don’t need to have a deterministic conception of causation and we don’t have to hold that the chain of causes ends in a necessary being for anti-necessitarian intuitions of the latter sort to fade away. The mere epistemic possibility that causal relations might be deterministic and that mere epistemic possibility that the chain of causes might terminate is a necessary being would be sufficient for the anti-necessitarian intuitions to diminish.

In conclusion, if my arguments hold, our staunchly anti-necessitarian intuitions are directed against strong necessitarianism, a position that remains compatible with PSR. However, in the case of weak necessitarianism, our anti-necessitarian intuitions are not as resolute. Thus, depending on the interpretation of “necessitarianism” in premise (2), the anti-necessitarian argument may be rendered invalid, or its second premise may not hold true—or, at the very least, not evidently so.

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1. See also Lin 2012: 418-9. [↑](#footnote-ref-1)
2. For a discussion of Avicenna’s notion of necessary being in itself, see M. Morvarid 2022. [↑](#footnote-ref-2)
3. I don’t mean to suggest that Avicenna was the sole philosopher to differentiate between necessity-in-itself and necessity-through-another. Nevertheless, he preceded many philosophers who made similar distinctions, including Spinoza (see, e.g., Melamed 2013), Leibnitz—as interpreted by Adams (1994: 10-21) and Lin (2012: 425-6)—and Fine (1994). Therefore, he rightfully merits acknowledgment, hence the title of this paper. [↑](#footnote-ref-3)
4. See, for instance, Correia (2012); Fine (1994). [↑](#footnote-ref-4)
5. For non-standard modal logics aiming to capture, and distinguish between, the qualified notions of necessity, see Correia (2000; 2007); Fine (1995, 2000). [↑](#footnote-ref-5)
6. This is true about atomic truths. However, a compound necessary truth could be a mix of both kinds of necessities. For instance, suppose p is necessary in itself and q necessary through another. Then p & q is necessary, but it's neither necessary in itself nor necessary through another, but rather a combination of both. [↑](#footnote-ref-6)