The principle of sufficient reason and necessitarianism

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1. Introduction

Peter van Inwagen (1983: 202–4) presented a powerful argument against the Principle of Sufficient Reason, which I henceforth abbreviate as 'PSR'. (See also Bennett 1984: 115 for a similar argument. I will elide the differences between them in what follows.) For decades, the consensus was that this argument successfully refuted PSR. However, now a growing consensus holds that van Inwagen's argument is fatally flawed, at least when 'sufficient reason' is understood in terms of ground, for on this understanding, an ineliminable premiss of van Inwagen's argument is demonstrably false and cannot be repaired. I will argue that this growing consensus is mistaken and that a powerful argument relevantly similar to van Inwagen's should still concern us, even when we understand 'sufficient reason' in terms of ground.

Here is the plan for the paper. In §2, I briefly state a version of van Inwagen's argument. In §3, I briefly discuss the recent criticism of it van Inwagen's argument and then formulate an updated version of it that is more plausible than its predecessor but which avoids the recent criticism.

2. PVI vs. PSR

We'll provisionally understand PSR as the view that any contingent truth has a sufficient reason; we'll revise our understanding of PSR in §3. We'll also provisionally say that P is a sufficient reason for Q only if P entails Q and P explains why Q is true. I will say little about what it is for one truth to explain another, save that if P and Q are contingent, then if P explains Q, Q does not also explain P.

Here is a reasonably compact statement of van Inwagen's argument against PSR. Assume that there is at least one contingent truth. Call the conjunction of all contingent truths 'C'. C is contingent, since any true conjunction with at least one contingent conjunct is itself contingent. So C has a sufficient reason; call it 'R'. R is either contingent or necessary. If R is contingent, then R is a conjunct of C. But a contingent conjunct of a conjunction cannot explain that conjunction. If R is necessary, then C is necessary, since sufficient reasons entail what they explain.

One can derive a formal contradiction from what was stated in the previous paragraph. Something has to go. van Inwagen rejects PSR and suggests that we do the same.

3. The Groundhog's response and PSR's revenge

Perhaps van Inwagen has incorrectly formulated PSR. Perhaps instead of appealing to an underspecified notion of explanation, we should appeal to a (supposedly clearer) notion of ground. Here is a first-pass restatement of PSR: every contingent truth has a full ground. And a parallel version of van Inwagen's argument could be stated in terms of ground. For what is the ground of the conjunction of all contingent truths?

However, this parallel version of van Inwagen's argument can be rejected for principled reasons. It is widely accepted that a plurality of facts can ground a single fact, and, more specifically, that a conjunction is collectively grounded in its conjuncts (e.g. see Audi 2012 and Fine 2012, among many others). For example, the fact that the sky is blue and the grass is green is grounded collectively in the fact that the sky is blue and the fact that the grass is green. Given this, the conjunction of contingent truths has a full ground, namely its contingent conjuncts taken collectively.[1] The parallel version of van Inwagen's argument fails. (See Dasgupta 2016: 392–93 and Schnieder and Steinberg 2016 for this response to van Inwagen's argument.)

Don't get too relaxed. There is a successor to van Inwagen's argument that avoids this response.

The Groundhog claimed that a plurality of grounds can ground a single fact. But arguably the fully general grounding relation can take pluralities in both 'slots', that is, many facts can collectively ground many facts collectively. (That grounding is a plural-to-plural relation that is defended by Dasgupta (2014) and further explored by Litland (2016).) I will assume that this is the case in what follows. There is some historical precedent for considering what grounds a plurality of truths. For example, Leibniz (1989: 149, 210) demands a sufficient reason for a series of things, and elsewhere Leibniz (1989: 217–18) demands a sufficient reason for contingent truths and tells us that this sufficient reason must be outside 'the sequence or series of this multitude of contingencies'. There is little reason to think that a series of things is itself a thing, or that a sequence of contingencies is itself a single contingency.

So suppose that each contingent truth has a ground that is among an infinite series of grounded truths. As just mentioned, a series of contingent truths needn't be a single thing, such as a set or conjunction of contingent truths. Still, we might wonder what grounds the series. And our wonder makes sense even if – perhaps especially if – talk of a series of truths is just shorthand for talk of some truths arranged serially.

On the version of PSR we will consider, there must be a ground for any truth or truths. Here is the version of PSR we will consider: any plurality of

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1 Alternatively, an anonymous referee has pointed out that if we worry that the conjunction of contingent truths has itself as a conjunct, we should say that the full ground of this conjunction is every other contingent truth besides itself.

contingent truths has a full ground.[2] In what follows, I assume that grounding induces entailment, that is, if some facts Fs collectively ground some facts Gs, then necessarily, if each fact among Fs obtains, then each fact among Gs obtains. We will state a version of the PSR using this conception of ground.

But first, some definitions. Let us say that a plurality of truths are *contingently true* if and only if at least one of them is contingently true; a plurality of truths are *necessarily true* if and only if each of them is necessarily true.

We can now state the revised version of van Inwagen's argument against PSR. Assume that there is at least one contingent truth. Let 'Cs' collectively denote the contingent truths; given our assumption that there is at least one contingent truth, there is at least one truth among Cs, and hence 'Cs' successfully plurally denote. Cs are contingent, since any plurality of truths with at least one contingent truth among them are contingent. So Cs have a sufficient reason, Rs. Rs might be a plurality of many truths or it might be a single truth; our argument is neutral with respect to this. Either way though, Rs are either contingent or necessary. If Rs are necessary, then Cs are necessary, since grounding induces entailment.

What if Rs are contingent? Rs cannot be totally disjoint from Cs, for in that case, Rs would be necessary rather than contingent. So either Rs just are Cs or Rs overlaps Cs, that is, there is at least one truth among Rs that is also among Cs. If Rs just are Cs, then Rs cannot be the full ground of Cs, since grounding is irreflexive.[3] So Rs overlap Cs. But I think we should accept *general irreflexivity*, which is the principle that, necessarily, for any Xs and Ys, if Xs and Ys overlap, then Xs are not the full ground of Ys.[4] (General irreflexivity permits the possibility that Xs might collectively be the full grounds for some Ys that are properly among the Ys provided that Ys and Xs do not themselves overlap.)

We now have the materials to straightforwardly derive a formal contradiction. Something has to go. Note that this argument is immune to the

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2   An anonymous referee has suggested a weaker version of the PSR, specifically, that every plurality of contingent truths can be partitioned into a plurality of pluralities, each of which has a full ground. My main reason for preferring my formulation of PSR over this suggestion is (as the referee also anticipated) that one important historical use of the PSR is to ensure the existence of a unified explanation for the series of contingent truths. This is the motivation we find in Leibniz, for example. Relatedly, it is not clear to me that a cosmological argument for the existence of a necessary being based on the weaker version of PSR would be as promising as one built on the version that I focus on here. That said, I do not doubt that the weaker version of PSR is worth considering as well.

3   Some philosophers, such as Jenkins (2011) and Wilson (2014), deny that grounding is irreflexive. However, although I might be willing to grant that some necessary truths are self-grounded, I deny that contingent truths can be. To discuss this further would take us far afield, but see Bennett 2017: 33–47 for further discussion.

4   I thank two anonymous referees for very helpful discussion on how best to formulate general irreflexivity.

criticism of van Inwagen's original argument, since Cs 'is' emphatically not a conjunction of contingent propositions but rather *just are* all the contingent propositions. So in this case, we can't say that that the individual contingent propositions collectively ground Cs, since the individual contingent propositions just are Cs. The general irreflexivity of ground saves this version of van Inwagen's argument.

The argument against PSR is powerful. It isn't decisive though. One might challenge general irreflexivity. For example, it appears to be a consequence of the logic of many–many ground developed by Litland (2016: 548, n. 36) that general irreflexivity is false. But by my lights general irreflexivity is more plausible than the logic Litland proposes – and the denial of general irreflexivity certainly does not have the same epistemic credentials as the claim that a conjunction is always collectively grounded in its conjuncts. When developing a 'logic' – that is, a rigorous system of governing principles – for a contentious philosophical notion, it is paramount to hold fixed the clearest intuitive judgements about the notion. Litland's logic might correctly characterize some related notion, but I think that it does not capture the correct logic of plural–plural full ground.

There are other ways one could challenge the argument against PSR. Here are three such ways. First, one could embrace rather than run from necessitarianism and hence deny the initial assumption from which both van Inwagen's original argument and my revised version of it began; see Lin 2012 and Dasgupta 2016 for thorough discussion of necessitarianism. Those who find necessitarianism congenial are invited to view this paper as presenting an argument for the conclusion that PSR implies necessitarianism that is at least as strong as van Inwagen's argument.

Second, one could deny that grounding induces necessitation; this denial is made by Skiles (2015). But similarly one could deny that sufficient reasons must always entail that for which they are reasons; perhaps in some cases, sufficient reasons merely *incline* without necessitating.[5]

Third, one could deny that there is a plurality that is *all* the contingent truths. Instead, one might hold that the concept *contingent truth* is indefinitely extendible, that is, for every plurality of contingent truths, there is a rule that tells one how to produce a more comprehensive plurality of contingent truths; see Levey 2016 for a defence of this view. But one could also respond in exactly this way to van Inwagen's original argument.

For what it is worth, I would reject these challenges to the argument against PSR. Necessitarianism is a non-starter for me, though, as noted earlier, it has been defended. Pace its advocates, I doubt that there is real metaphysical work to be done by a grounding relation that does not induce entailment. And to accept the indefinite extensibility of *contingent truth* in order to save the PSR is to misjudge the price of this way of accepting

5 See Leibniz 1989: 44–46 for historical inspiration for this rejoinder.

indefinite extensibility: for on this view, there are always more fundamental facts to be found, for the contingent truths whose introduction is licensed by the rule that generates them are always deeper grounds for the contingent truths with which we began. Contrast this with, for example, the alleged indefinite extensibility of *set*. Perhaps for any plurality of sets, there is a rule that tells one how to produce a more comprehensive plurality of sets. But the outputs of this rule are always sets that are less fundamental than the inputs with which we began, because the additional sets are those that have their predecessors as elements, and are thereby grounded in them. In short, accepting the indefinite extensibility of *set* commits one to a hierarchy of increasingly *less* fundamental entities, while accepting the indefinite extensibility of contingent truths in order to save the PSR commits one to a hierarchy of increasingly *more* fundamental facts. The ontological price of this way of saving PSR is infinitely weighty, and if this is the price one must pay to salvage PSR, better to consign PSR to the wrecking yard.

The argument against PSR cast in terms of grounding is powerful. And it is as least as powerful as van Inwagen's original argument, which did not appeal to grounding, while avoiding the objection from grounding that troubled the original argument. This is exactly what I aimed to show.[6]

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Abstract

Peter van Inwagen (1983: 202–4) presented a powerful argument against the Principle of Sufficient Reason, which I henceforth abbreviate as 'PSR'. For decades, the consensus was that this argument successfully refuted PSR. However, now a growing consensus holds that van Inwagen's argument is fatally flawed, at least when 'sufficient reason' is understood in terms of ground, for on this understanding, an ineliminable premiss of van Inwagen's argument is demonstrably false and cannot be repaired. I will argue that this growing consensus is mistaken and that a powerful argument relevantly similar to van Inwagen's should still concern us, even when we understand 'sufficient reason' in terms of ground.

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