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PRINCIPLE OF SUFFICIENT REASON

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According to the Principle of Sufficient Reason (henceforth 'PSR'), everything has an explanation or sufficient reason. The PSR was a central tenet of rationalist metaphysics but has since gone out of vogue. Its unpopularity in recent metaphysics traces in part to the formidable consequences it is taken to have, including necessitarianism (the view that the world could not have been otherwise), the existence of God, the identity of indiscernibles (the principle that if two objects have all the same properties, they are identical), and the principle of plenitude (the principle that if an object can exist, it does exist).

But lately, interest in the PSR has been enjoying a resurgence. This has been due, at least in part, to the recent interest in grounding, and relatedly, metaphysical explanation. If the notions of ground and metaphysical explanation are in good standing, then we can formulate a version of the PSR on which 'explanation' picks out either ground or metaphysical explanation. Since this chapter figures in a volume on grounding, I will focus on the version of the PSR that says that every fact has a ground. My primary goal is to address three questions. First, how continuous is the contemporary notion of grounding with the notion of sufficient reason endorsed by Spinoza, Leibniz, and other rationalists? In particular, does a PSR formulated in terms of ground retain the intuitive pull and power of the PSR endorsed by the rationalists? Second, to what extent can the PSR avoid the formidable traditional objections levelled against it if it is formulated in terms of ground? And finally, how might historical discussion of the PSR shed light on the contemporary notion of grounding?

I proceed as follows. In §1, I briefly discuss the relationship between the intimately related notions of grounding and metaphysical explanation, and delineate features I take to be central to the former notion. In §2, I discuss apparent barriers to construing Spinoza's PSR in terms of ground. In §3, I discuss apparent barriers to construing Leibniz's PSR in terms of ground. In §4, I compare and contrast the notions of grounding and sufficient reason, with a focus on the role these notions play in arguments for the claim that the PSR entails necessitarianism. In §5, I discuss the strength of contemporary arguments for the PSR formulated in terms of ground and metaphysical explanation. In §6, I discuss how the early modern rationalist's notion of a sufficient reason might shed light on grounding.

§1. Grounding and Metaphysical Explanation

Consider the fact that objects persist over time. In virtue of what do they persist? According to a four-dimensional perdurantist, an object persists over time in virtue of the fact that it is a collection of temporal stages and the fact that a temporal stage of the object at time t_1 is appropriately related to the temporal stage of that object at time t_2. If this four-dimensionalist view is correct, these facts *ground* our original fact by being those in virtue of which the original fact obtains.

Grounding has taken center stage in contemporary metaphysics. But the notion is hardly new to philosophy. Even though the use of the term 'grounds'—as introduced by Fine (2001)—is novel, the kind of explanation or dependence relation it is intended to pick out (the kind whose presence is often signaled by the locutions 'in virtue of' or 'because') is both familiar and ubiquitous.

Grounding is closely related to the contemporary notion of metaphysical explanation, where a metaphysical explanation for a fact tells us what makes it the case that the fact obtains. But what is the precise relationship between metaphysical explanation and grounding? Some insist that a single metaphysical dependence relation—grounding—with a unified set of formal features backs metaphysical explanation.[1] Others argue that grounding just is, rather than backs, metaphysical explanation.[2] And some opponents of grounding argue that no single metaphysical dependence relation can back metaphysical explanation and instead deploy a formally and substantively diverse set of metaphysical dependence relations.[3] These theorists take the notion of metaphysical explanation to be in good standing, even as they reject the notion of grounding (considered as a unique relation governed by a unified set of formal features). For the purposes of this chapter, I will bracket this last position. Also, for the sake of convenience, I will suppose that to ground is to metaphysically explain. If grounding backs metaphysical explanation instead, the discussion and arguments in this essay will still hold *mutatis mutandis*.

The notion of a metaphysical explanation makes more transparent the relationship between grounding and sufficient reason. Sufficient reason—at least as discussed by Leibniz—is partly a cognitive notion: it is agents who give sufficient reasons. Metaphysical explanation likewise has cognitive connotations: it is agents who provide metaphysical explanations. But while the term 'explanation' has cognitive connotations, suggesting that there could be no explanation if there were no agents doing any explaining, 'metaphysical explanation' is a term of art.[4] It transcends particular human interests, perspectives, or capacities and applies to what an omniscient subject—someone who knows all the facts—would be in a position to explain. Construed in this way, metaphysical explanation seems continuous with Leibniz's conception of a 'sufficient reason'. Leibniz says, for example:

> So far we have just spoken as simple physicists; now we must rise to metaphysics, by making use of the great principle, little used, commonly, that nothing takes place without sufficient reason, that is, that nothing happens without it being possible for someone who knows enough things to give a reason sufficient to determine why it is so and not otherwise.
>
> *(Leibniz 1989: 209)*

Leibniz's statement of the PSR implies that a "sufficient reason"—like a metaphysical explanation—is a reason that "someone who knows enough things" could in principle provide. Spinoza too seems to be committed to the claim that a 'perfect intellect' could explain everything (see Lin 2017).

But what is metaphysical explanation? I earlier glossed metaphysical explanation as the kind of explanation that tells us what makes it the case that a fact obtains. Can more be said? Many philosophers think that there is a sharp distinction between metaphysical and causal explanation, and some even characterize metaphysical explanation as 'non-causal explanation'.[5] Others treat metaphysical explanation and causal explanation as closely related.[6] The precise relationship between metaphysical and causal explanation is relevant to the question of whether the notion of sufficient reason endorsed by Spinoza and Leibniz is continuous with metaphysical explanation, for both Spinoza and Leibniz often formulate their version of the PSR in terms of causation. If it turns out that sufficient reasons can only be causal reasons and that causal reasons are not metaphysical (in our sense), then a PSR formulated in terms of metaphysical explanation would not have much in common with versions of the PSR endorsed by the early modern rationalists. I will discuss the question of whether sufficient reasons are ever metaphysical or causal in more detail in the next two sections.

Finally, metaphysical explanation and grounding are generally, though not universally, taken to be irreflexive, asymmetric, transitive, and necessitating.[7] In what follows, I will discuss whether sufficient reason shares these features. Henceforth, unless otherwise noted, I will use 'explanation' and 'explains' to mean *metaphysical explanation* and *metaphysically explains*, respectively. Also, unless otherwise noted, I will use 'explains' or 'grounds' to mean *fully explains* or *fully grounds*.

Following notation introduced by Rosen (2010), I will refer to facts by putting a sentence between square brackets. For example, [Snow is white] is the fact that snow is white. If the fact that p grounds the fact that q, I will then write '[p] grounds [q]'. If grounding just is metaphysical explanation (rather than a worldly relation that backs metaphysical explanation), then '[p] grounds [q]' can be taken to be shorthand for something like 'a subject who knows all the facts can metaphysically explain [q] by reference to [p]'.

§2. Grounding in Spinoza

The PSR is not explicitly stated in the axioms of Spinoza's *Ethics*. Nevertheless, Spinoza's commitment to the PSR is arguably implicit in the statement of his axioms (see Lin 2017). When Spinoza explicitly formulates the PSR, he does so in terms of 'cause' or 'reason':

> For each thing there must be assigned a cause, *or* reason, both for its existence and for its nonexistence.
>
> *(*Ethics *Ip11d2)*[8]

The disjunctive 'cause or reason' is puzzling. Are 'cause' and 'reason' equivalent in meaning for Spinoza? Or are they distinct (perhaps overlapping) notions? And how closely is either notion related to grounding or metaphysical explanation? I will address these questions momentarily. But on the face of it, there are at least three apparent barriers to construing Spinoza's PSR in terms of ground and metaphysical explanation. First, if causes are distinct in kind from 'metaphysical' reasons or explanations, then Spinoza's PSR is not continuous with a PSR formulated in terms of ground, for it is, at least in part, formulated in terms of causation. Second, Spinoza's PSR is explicitly about the explanation of *things* rather than facts, which suggests that it has narrower scope than a PSR that concerns facts. It suggests, for example, that while each thing (e.g., a red ball) has an explanation, facts concerning the ways those things are (e.g., the fact that the ball is red) do not. Third, Spinoza is seemingly committed to the claim that God explains himself, thereby violating the irreflexivity of explanation. Insofar as metaphysical explanation

and grounding are taken to be irreflexive, it would seem that Spinoza's PSR does not concern metaphysical explanation or grounding.

But there are reasons to believe that even though Spinoza's formulation of the PSR uses 'cause', this does not pick out our contemporary conception of causation. First, for Spinoza, causation involves a conceptual connection (see *Ethics* Iax4, Ip6c2). For all x and y, x causes y if and only if there is a conceptual connection between the concept of x and the concept of y (see Della Rocca 2008; Lin 2017). A causal fact then is then a conceptual fact for Spinoza. Moreover, for Spinoza, a conceptual connection is explanatory (cf. *Ethics* Iax5, IIp5, IIp7s). Thus, effects are conceived or understood through their causes, i.e., a conceptual grasp of an effect requires a conceptual grasp of its cause (cf. *Ethics* Id3). Insofar as contemporary accounts of causation do not take causal relations and conceptual relations to be coextensive, it would seem that Spinoza's account of causation does not bear a close similarity to contemporary accounts of causation. But is causation (in Spinoza's sense) explanatory in the grounding sense? A ground tells us what makes it the case that a fact obtains. And so, because effects are understood through their causes, a causal (and thus conceptual) connection is, for Spinoza, a paradigm case of grounding.

Second, Spinoza's PSR applies to entities that are not apt for standing in causal relations (at least given our contemporary understanding of causation). For instance, Spinoza claims that if a triangle exists, there must be a cause or reason why it exists (*Ethics* Ip11d2). While triangles are plausibly not apt for standing in causal relations, nothing precludes them from being metaphysically explained or grounded (the same point holds if we restrict ourselves to facts about triangles rather than to triangles themselves). Thus, even if reasons are not wholly distinct from causes for Spinoza, and so there is a 'cause' for why a triangle exists, it would seem that Spinoza's understanding of causation is unlike our contemporary notion of causation.

Finally, on Spinoza's view, and unlike on most contemporary views of causation, a total cause necessitates its effects:

> From a given determinate cause the effect follows necessarily; and conversely, if there is no determinate cause, it is impossible for an effect to follow.
>
> (Ethics *Ia3)*

Thus causation, for Spinoza, is governed by a necessitation principle. According to the necessitation principle that governs grounding, if a fact grounds another, then necessarily, if the first fact obtains, the second also obtains.[9] Most philosophers accept that in cases of grounding, the *explanans* can consist in many facts, and some (e.g., Dasgupta 2014) argue that even the *explanandum* can be plural. For simplicity of exposition, my formulation of the necessitation principle takes both the *explanans* and the *explanandum* to consist in single facts. If causation, for Spinoza, is explanatory in the metaphysical sense and governed by a necessitation principle, then what Spinoza means by causation is close (if not identical) to the contemporary notion of grounding. When in §4 I discuss the role necessitation plays in the entailment from the PSR to necessitarianism (the view that all facts are necessary), I will also discuss why a commitment to necessitation is widely taken to be a core formal feature of grounding.

Does Spinoza's PSR have a narrower scope than a PSR that says that every *fact* rather than every *thing* has a sufficient reason? There is reason to believe that Spinoza's PSR extends to facts. First, Spinoza doesn't talk about the explanation of things *simpliciter*, but the explanation for a thing's existence or nonexistence. In addition, there are readings of Spinoza that distinguish facts and things, and yet which plausibly entail that a PSR that applies to things collapses into a PSR that applies to facts. On Michael Della Rocca's (2015) reading of Spinoza, for instance, that there is an unexplained fact entails that there is an unexplained state of substance. If a state of

substance is considered to be a thing on Spinoza's view, then every time we have an unexplained fact, we also have an unexplained thing. Hence, if there is no unexplained thing (as per a PSR that applies to things), there can be no unexplained fact.

Finally, it is not obvious that Spinoza is committed to a violation of irreflexivity. At *Ethics* Id1, Spinoza construes a "cause of itself" as "that whose essence involves existence *or* that whose nature cannot be conceived except as existing." On at least one understanding, this suggests that God's existence is explained by God's essence. Put in terms of facts, the claim seems to be that the fact that God exists is explained by the fact that it is essential to God that he exists. Absent further assumptions—such as the assumption that God's essence is identical to God—this does not constitute a violation of irreflexivity.[10] It is worth noting that some philosophers reject the claim that explanation is irreflexive. However, even if there are certain exceptions to irreflexivity, it is far from clear that God should be an exception to the rule. Declaring God to be the exception by fiat seems ad hoc and in tension with a thoroughgoing commitment to the PSR.

What might explain the fact that it is essential to God that he exists? It may be that for Spinoza this fact is not apt for explanation. At *Ethics* Ip7, Spinoza says: "It pertains to the nature of a substance to exist". Della Rocca (2008: 49) argues that Spinoza's claim here is that "each substance is such that its existence somehow follows from its very concept or nature". If we then further ask why substances are such that their existence follows from their very concept or nature, the answer might just be: 'that's just what a substance is'. It is unclear, given his commitment to the PSR, whether Spinoza is permitted to simply assume that there is such an existence-involving concept or nature. But for our purposes, it is not at all obvious God's self-causation entails a violation of the irreflexivity of explanation.[11] Hence, once again—at least as far as the formal features of grounding are concerned—what Spinoza means by 'sufficient reason' does not obviously come apart from grounding.

§3. Grounding in Leibniz

According to Leibniz's PSR, "we can find no true or existent fact, no true assertion, without there being a sufficient reason why it is thus and not otherwise" (Leibniz 1989: 217). What is a 'sufficient reason' for Leibniz? A hint of the notion of 'sufficient reason' at work in Leibniz's PSR comes from an argument Leibniz presents in *Primary Truths*. According to this argument, the PSR is entailed by Leibniz's conceptual containment theory of truth. And indeed, Leibniz says the following in his July 1686 letter to Arnauld:

> [I]n every true affirmative proposition, whether necessary or contingent, universal or particular, the notion of the predicate is in some way included in that of the subject. *Predicatum inest subjecto*, otherwise I do not know what truth is . . . For *there must always be some foundation for the connection between the terms of a proposition, and this must be found in their concept*s. This is my great principle, with which I believe all philosophers should agree, and one of whose corollaries is the commonly held axiom that nothing happens without a reason which can always be given, why the thing has happened as it did rather than in another way, even though this reason often inclines without necessitating.
>
> *(Leibniz 1970: 337)*

On the conceptual containment theory of truth, what makes each true proposition true is the fact that the proposition's predicate is contained in its subject. This containment of predicate in subject is explicit in the case of identities (such as 'A is A') but needs to be shown through the

analysis of concepts in the case of nonidentities (such as 'A is B'). The sufficient reason for each proposition is an *a priori* demonstration that reduces the proposition to an identity, and it consists in substituting the terms of a proposition with definitions until we (or God) arrive at an identity.

This notion of a 'sufficient reason' is not causal. It instead bears close similarity to the notion of grounding. While most philosophers would reject Leibniz's conceptual containment theory of truth, it is nevertheless Leibniz's answer to the question 'what makes it the case that any given proposition is true?' And Leibniz never seems to have given up his conceptual containment theory of truth. Leibniz here takes a 'sufficient reason' to be a truth-making reason. This suggests that Leibniz's notion of a sufficient reason is closely related to—though perhaps not identical to—the contemporary notion of grounding.

Leibniz also takes God to be "ultimate reason for things". In discussing the sufficient reason for the existence of the universe (which, for Leibniz, consists in a series of contingent things), Leibniz writes:

> Thus *the sufficient reason*, which needs no other reason, must be outside this series of contingent things, and must be found in a substance which is its cause, and which is a necessary being, carrying the reason of its existence with itself. Otherwise, we would not yet have a sufficient reason where one could end the series. And this ultimate reason for things is called *God*.
>
> *(Leibniz 1989: 210)*

The passage implies that God (or more carefully, perhaps, the fact that God chooses to bring about our world) is the sufficient reason for the existence of contingent things. But bringing about, like causation, is a relation of production rather than constitution. Indeed, Leibniz says that the sufficient reason for the existence of the universe "must be found in a substance which is its cause". It is not clear whether the sense in which God causes or brings about the existence of the universe can be taken to be grounding. If one, like Fine (2012a), thinks that in cases of grounding the *explanans* is constitutive of the *explanandum* and that the *explanandum* consists in nothing more than the *explanans*, then it would be implausible to think that the existence of the universe is grounded in the fact that God brings it about, for the existence of the universe, for Leibniz, does not *consist in* the fact that God brings it about. For Leibniz, the created is wholly distinct from the creator and does not consist in any fact about the creator. But if the grounding relation can also be productive—rather than merely constitutive—then perhaps the notion can accommodate the relation that God stands in to the existence of the universe on Leibniz's view.

Finally, it is unclear that Leibniz is committed to a violation of irreflexivity. The above passage says that the necessary being (i.e., God), carries "the reason of its existence with itself". Like in Spinoza's case, this claim may be construed as follows: God's existence is explained by God's essence, which is contained within God. Leibniz is thus not obviously committed to a violation of irreflexivity. Insofar as the irreflexivity of ground is a core formal feature of grounding, it is thus not obvious that what Leibniz means by 'sufficient reason' ever fails to be irreflexive.

§4. The PSR and Necessitarianism

According to a longstanding objection to the PSR, the principle entails necessitarianism: the view that the world could not have been otherwise, i.e., that all facts are necessary. This consequence is generally, if not universally, taken to be unacceptable.[12] My central goal in this section is to examine the argument from the PSR to necessitarianism and assess whether a PSR

formulated in terms of ground also entails necessitarianism. As we shall see, it is not clear that the argument goes through when the PSR is formulated in terms of ground.

In the present discussion, I will focus on a version of the argument that has been put forward by Jonathan Bennett and Peter van Inwagen.[13] That argument runs as follows. Take the conjunction C of all contingent facts. On the assumption that the PSR is true, C has an explanation. So suppose that some fact [p] explains C. Now [p] is either contingent or necessary. If [p] is contingent, it is itself a conjunct in C. But [p] cannot explain a fact of which it is itself a conjunct (since this would violate the plausible requirement that explanation is noncircular). So [p] has to be necessary. But given necessitation, no contingent fact can be fully explained by necessary facts. C is then either unexplained or it is not contingent. On the assumption that the PSR is true, C cannot be unexplained. It follows that C is not contingent. If C is not contingent, then all facts are necessary. Yet if all facts are necessary, the world cannot be otherwise.

There are reasons to be skeptical of the argument. Levey (2016), for example, argues that the concept *contingent truth* is indefinitely extensible, and so the idea of "all contingent truths" is incoherent. But there are seemingly ways to resist the argument even by simply appealing to principles that govern metaphysical explanation (or, more specifically, ground). Schnieder and Steinberg (2015) argue that the argument relies on a problematic application of irreflexivity. Another reply made by some proponents of grounding (e.g., Schnieder and Steinberg 2015; Dasgupta 2016), is to insist that the conjunction of contingent facts is simply grounded in its conjuncts, taken together. However, McDaniel (2019) points out that if we admit plural grounding—the view that a plurality of facts can collectively ground a plurality of facts—then the Bennett–van Inwagen argument is immune to this last reply (though see a reply to McDaniel in Werner forthcoming).

It is important to note that simply rejecting necessitation as a principle that governs metaphysical explanation—a view defended independently by Leuenberger (2014) and Skiles (2015)—would not be enough to avoid the conclusion of the Bennett–van Inwagen argument. This is because the falsity of necessitation as a principle that governs metaphysical explanation is compatible with the truth of the claim that no contingent fact can be fully grounded in necessary facts. By contrast, Pruss (2006) and Amijee (forthcoming) each argue against the claim that no contingent fact can be fully grounded in necessary facts. Pruss assumes that God has the freedom to do otherwise and so concludes that some putative necessary truths about God could explain all contingent facts without necessitating them. By contrast, Amijee (forthcoming) exploits a parallel between time and modality to show that we should do away with a commitment to the relevant claim as a principle that governs metaphysical explanation.

Is the early modern rationalist argument for necessitarianism susceptible to the ground-theoretic responses? I will show that it falls victim to only the replies made by Pruss (2006) and Amijee (forthcoming). Lin (2012: 419–420) reconstructs Spinoza's argument for the claim that rationalism leads to necessitarianism as follows:

1. Whatever exists (other than God) is a mode of God. (by Ip15)
2. God exists necessarily. (by Ip11)
3. The existence of the modes follows from the divine nature. (by Ip16)
4. The effects produced by the modes follow from the divine nature. (by Ip26)
5. Whatever follows from something necessary is itself necessary. (suppressed premise)
6. Therefore, there is nothing contingent.

Pruss and Amijee deny that whatever follows from something necessary is itself necessary. Denying this claim requires denying necessitation. Yet it might be difficult to see how 5 (and thus

necessitation) could be rejected. If, like Fine (2012b: 1), one thinks that grounding is akin to logical consequence, then necessitation appears hard to deny. Some (like Rosen 2010: 118) take necessitation to be a feature that differentiates grounding from causal determination. But neither view is compulsory for a grounding theorist: grounding need not be modelled on logical consequence, and features other than necessitation might differentiate grounding from other forms of determination and explanation. Finally, denying 5 does not entail a wholesale denial of necessitation, for a restricted necessitation principle (i.e., one that applies only when the *explanans* is contingent) can still hold.

None of the other canvassed replies to the Bennett–van Inwagen argument would block the early modern rationalist argument. No premise relies on a conjunction of contingent facts. Hence, there is no way for a proponent of grounding to reply by insisting that the conjunction of all contingent truths is grounded in its conjuncts, taken collectively. Nor does the argument rely on a totality of contingent truths or things. And the third premise blocks the reply according to which each contingent truth (or thing) is explained by another contingent truth (or thing) in an infinite series: the premise seems to require that the existence of *each* mode follows from divine nature. The third premise also *a fortiori* blocks the claim that the sufficient reason for the big conjunction can be found in its conjuncts, taken collectively, since no contingent thing in the series of contingent things can be a sufficient reason for the existence of a contingent thing. A similar line of argument can be found in Leibniz, who claims that a contingent thing can never be a "complete explanation" [*ratio*] for the existence of another contingent thing (Leibniz 1989: 149). This final constraint on a sufficient reason—that no contingent thing can be a sufficient reason for the existence of another contingent thing—marks an important distinction between grounding and the early modern notion of a sufficient reason. It would take us too far afield to explore why Leibniz and Spinoza adopted this constraint on sufficient reason and whether a similar constraint might ultimately also apply to grounding.

§5. Contemporary Treatments of the PSR

There are few contemporary defenders of the PSR. This group includes Della Rocca (2010, forthcoming), Pruss (2006), and Amijee (2017). Dasgupta (2016) also develops (though does not endorse) a version of the PSR. Of these contemporary defenses, Dasgupta (2016), Amijee (2017), and Della Rocca (forthcoming) explicitly discuss a PSR formulated in terms of either ground or metaphysical explanation. The versions of the PSR defended by Pruss (2006) and Della Rocca (2010) do not explicitly appeal to grounding or metaphysical explanation but can nevertheless be understood in grounding terms.

A central question I wish to address in the present section is this: does a PSR formulated in terms of ground preserve the strength of the early modern rationalist's PSR? At least one way of measuring the strength of a PSR is by its consequences. And as mentioned at the beginning of this chapter, the PSR has traditionally been taken to have various formidable consequences. Another way to measure the strength of a PSR is by whether it trivializes intuitively substantive questions. In what follows, I will use these two metrics to assess the strength of contemporary versions of the PSR.

The version of the PSR endorsed by Dasgupta (2016) purports to avoid at least some of the formidable consequences that the PSR is traditionally taken to entail. Because grounding sequences, on Dasgupta's view, terminate in 'autonomous' facts—facts that are not apt for grounding—Dasgupta's version of the PSR does not entail the existence of God. No fact needs to be ultimately grounded by a fact about the existence of God. Nevertheless, the paradigmatic example of an autonomous fact on Dasgupta's view is an essentialist fact: a fact of the form [it

is essential to *x* that *p*]. And such facts are generally taken to be necessary. Hence, given necessitation (which Dasgupta endorses), and despite his protestations that a kind of contingency is nevertheless preserved, Dasgupta's version of the PSR entails necessitarianism.

Moreover, Dasgupta's ground-theoretic PSR—along with some of the other versions of the PSR formulated in terms of ground—seems to trivialize certain substantive questions that fall under the scope of the traditional rationalist PSR. Consider, for example, the question *why is there something rather than nothing?* On the standard grounding framework, that there is anything is an existentially quantified fact explained by its instances, i.e., facts of the form *x exists*.[14] But surely, this is not the kind of answer that we are after when we ask *why is there something rather than nothing?* This kind of concern suggests that perhaps the early modern rationalists were not construing sufficient reason in the way we construe ground. Perhaps sufficient reason is more akin to a causal explanation: it seems misguided to answer the question 'what caused there to be something?' by saying 'the table', where the table is one of the existing things. Alternatively, perhaps the fact that the standard view of how existentially quantified facts are grounded makes certain substantive questions trivial suggests that we ought to revise our grounding framework (see Melamedoff 2018 for an argument against the standard view).

Unlike Dasgupta (2016), who develops a view on which a ground-theoretic PSR might be true yet does not argue for it, Della Rocca (2010) provides an argument for the PSR. Della Rocca observes that there are uncontroversial examples of facts for which it is appropriate to demand an explanation. He argues that we frequently appeal to 'explicability arguments'—arguments for the nonobtaining of certain states of affairs on the basis that such states of affairs would be inexplicable. For instance, if we place equal weights on either side of a scale, we infer that one side will not hang down (assuming there are no defects in the scale). If one side were to hang down past the other, we would have an inexplicable state of affairs. Likewise, why think that neither lefty nor righty—fission offshoots in Parfit's (1984) thought experiment—are identical to the original person? Because the obtaining of the state of affairs in which the original person was identical to lefty rather than righty (or vice versa) would be inexplicable.

Della Rocca argues that accepting some explicability arguments puts pressure on one to accept an explicability argument concerning existence facts (facts of the form such-and-such state of affairs exists or obtains). But if all existence facts demand explanation, the PSR is true. Since explicability arguments seem appropriate in many cases, those who deny the PSR must provide a principled reason for why they are not appropriate in the case of existence facts. Della Rocca suggests that the challenge to provide such a principled reason cannot be met by opponents of the PSR. This sort of argument aims to shift the burden of proof from proponents of the PSR over to those who reject it.

It is not obvious which, if any, of the PSR's usual formidable consequences are shared by Della Rocca's PSR (though Della Rocca 2010 seems willing to endorse necessitarianism). And how would a world in which Della Rocca's PSR is true be structured? Would all facts be ultimately explained by God, or by some other self-explaining entity, or by autonomous facts (as per Dasgupta), or would we have to embrace an infinitely descending explanatory regress? Nonetheless, the world as conceived by Della Rocca (2010) certainly has explanatory structure. His recent work defends a more radical position. Della Rocca (forthcoming) argues that a particular kind of Bradleyan explanatory demand with respect to the obtaining of relations entails a radical monism according to which there are no distinctions whatsoever. There are thus neither many things nor one thing—there is simply being. Such a view appears to entail that the world lacks structure, thus rendering moot the question of how a world in which the PSR is true would be structured. Della Rocca further argues that the explanatory demand with respect to the obtaining of relations—and the failure to satisfy it—also commits us to an unrestricted PSR.

Amijee (2017) provides an argument for a *commitment* to the PSR—formulated in terms of metaphysical explanation—rather than for the principle's truth. Any argument for the truth of the PSR is also an argument for a commitment to it, on the assumption that we ought to be committed to what is true. However, an argument for a commitment to the PSR need not be an argument for its truth. Amijee shows that a familiar species of inquiry—'structural inquiry'—requires that those who participate in the practice seek metaphysical explanations for facts (where the domain of potential inquiry includes every fact). She then shows that participating in structural inquiry commits one to the PSR in two different ways: (1) it leads to the result that every fact is such that one is committed to its having a metaphysical explanation, and (2) it leads to the result that one is committed to the claim that every fact has a metaphysical explanation. Finally, she shows that we ought to participate in structural inquiry and so ought to be committed to the PSR.

Amijee's argument for a commitment to the PSR leaves open what explanatory structure a world in which the PSR is true might have. Indeed, in Amijee (2017), she argues that the PSR can be satisfied by a world containing non-terminating explanatory sequences.[15] Moreover, it does not follow from Amijee's argument for a commitment to the PSR that we ought to be committed to the principle holding in worlds other than our own. In other words, our commitment to the PSR could be a commitment to a contingent principle.

I finally come to the extended treatment of the PSR by Pruss (2006). Pruss argues for a PSR restricted to contingent truths. Pruss also takes his PSR to have some controversial consequences, the most significant of which is the existence of a necessary being. He claims that a circularity worry arises on views that insist that every fact (or entity) in an infinitely long sequence can be explained by the next fact (or entity) in the sequence. In discussing an infinite explanatory sequence concerning chickens and eggs, Pruss (2006: 44) writes:

> [I]f we accept infinitely regressive explanations, then we should be willing to say that the existence and activity of the members of the set of eggs are explained by the existence and activity of the members of the set of chickens while the existence and activity of the chickens are explained by that of the eggs. This is circular and clearly fails to answer the question why there are any chickens and eggs at all.

There is much that I find problematic about Pruss's argument. First, it is not sets (of chickens or eggs) that are the proper *explanans* in an infinite explanatory sequence that consists of chickens and eggs: it is particular chickens and particular eggs. Second, to ask 'why are there any chickens or eggs at all?' is to change the question. The question we started with asked what explains the existence of each member of an infinite explanatory sequence and *not* why there are any members in the sequence at all. As noted, on the standard grounding framework, the latter question is answered simply by appealing to particular existing members of the sequence.

I have sketched some major points of overlap and divergence amongst the contemporary treatments of the PSR by Della Rocca, Amijee, Pruss, and Dasgupta. Much more could be written about the details of the various views and arguments, both individually and when taken together. Yet I hope to have said enough to bring out the extent to which the contemporary treatments of the PSR often depart substantially from the rationalist accounts developed by Spinoza and Leibniz.

§6. Explanation and Intelligibility

In this final section, I will explore the connection between intelligibility and explanation. For Spinoza, sufficient reason is intimately connected with intelligibility and understanding. As

Della Rocca (2008: 5) writes, for Spinoza, "to conceive of a thing is to explain it". Also, as mentioned earlier, for Spinoza effects are understood or conceived through their causes. This suggests that for Spinoza, grasp of the *explanans* suffices for grasp of the *explanandum*. Put differently (and perhaps more strongly), the *explanandum* can be deduced *a priori* from the *explanans*. This type of view is perhaps not entirely alien in the traditional grounding framework. As mentioned, Fine (2012b: 1), for example, treats ground as a relation akin to logical consequence. If ground is like logical consequence, then it is not implausible to think that the grounded can be deduced *a priori* from the ground. However, most discussions of metaphysical explanation stop short of a commitment to the *a priori* deducibility of the *explanandum* from the *explanans* (though the *explanans* must, in some sense, illuminate why the *explanandum* obtains).

Does taking seriously the link between explanation and intelligibility (as Spinoza does) affect contemporary theorizing about grounding and metaphysical explanation? I will suggest that how closely we relate explanation to intelligibility inevitably affects our views about what must figure in the *explanans* for a given thing or fact.

Della Rocca (forthcoming) argues that it is in the nature of relations to be grounded in one or more of their relata. He further claims that because relations are by their nature grounded in one or more of their relata, they depend not only on their relata but also on the grounding relation that obtains between the relation and the relevant relata. While Della Rocca does not draw an explicit connection to Spinoza here, the intuitive plausibility of the view he puts forward stems from construing grounding (and metaphysical explanation) in the way that Spinoza thought of sufficient reason—as a reason that makes its *explanandum* intelligible. Compare: in order to grasp what makes it the case that p, it would not be enough to simply grasp its ground. One would need to grasp the ground *as* a ground for the fact that p. This suggests that in order to grasp what makes it the case that p, one must not only grasp its ground but also grasp the relationship between the ground and the grounded (i.e., the fact that p). Construing grounding as very tightly connected to intelligibility thus informs views about what ought to figure in a full ground for a fact.

Likewise, if we eschew the Spinozist link between the ground and grounded and settle for something weaker, we in turn end up with fewer constraints on what must figure in a full ground. For instance, Amijee (forthcoming) argues that the fact it is raining at 3 p.m. on July 31, 2019, can fully ground the fact that it is raining now. Absent further premises, there is no way to deduce the *explanandum* from the *explanans* in this case, though the *explanans* nevertheless illuminates why it is raining now (i.e., it tell us what makes it the case that it is raining now).

§7. Conclusion

I have shown that Spinoza's and Leibniz's notions of sufficient reason are reasonably continuous with the contemporary notions of grounding and metaphysical explanation, and that thinking about the PSR within the grounding framework can help to clarify (and perhaps avoid) some of the unattractive consequences traditionally attributed to the PSR. I also assessed, in a preliminary fashion, the extent to which contemporary treatments of the PSR preserve the strength of the rationalist PSR. Finally, I sketched some of the potential significance of the rationalist connection between grounding and intelligibility for contemporary work on grounding.[16]

Related Topics

See chapters from this handbook on: Explanation [Chapter 8]; Necessity [Chapter 10]; Structure [Chapter 27]; Fundamentality [Chapter 23]; Infinite Descent [Chapter 16].

Notes

1 Cf. Schaffer (2012, 2016) and Audi (2012).
2 Cf. Fine (2001), Litland (2013), and Dasgupta (2014). Wilson (2016) argues that proponents of such views are guilty of conflating metaphysical explanation—a partly epistemic notion—with metaphysical dependence.
3 Cf. Wilson (2014) and Koslicki (2015). Wilson argues against both the posited formal features of grounding and the explanatory utility of positing a single relation that backs metaphysical explanation.
4 See Martin Glazier's chapter 'Explanation' [Chapter 8] in this volume.
5 Cf. Audi (2012), and Correia and Schnieder (2012).
6 Schaffer (2016) argues for a close analogy between grounding and causation, Wilson (2018) treats grounding as a type of causation, and Bennett (2017) holds that causation is a kind of building relation.
7 See Naomi Thompson's chapter 'Strict Partial Order' [Chapter 17] and Alexander Skiles's chapter 'Necessity' [Chapter 10] in this volume.
8 All references to Spinoza's *Ethics* are from *A Spinoza Reader: The Ethics and Other Works*. (E. Curley, Ed. and Trans.). Princeton University Press. The first numeral in references to Spinoza's *Ethics* refers to parts. The letter 'p' refers to proposition, 'c' refers to corollary, 'd' refers to demonstration, and 's' refers to scholium.
9 In some discussions of grounding, a commitment to this principle has been referred to as a commitment to 'necessitarianism'. I here refer to the principle as a 'necessitation principle' and use the label 'necessitarianism' to refer to the view that all facts are necessary, i.e., the world could not have been otherwise. In the context of discussions of the PSR, the term 'necessitarianism' has more commonly been used to refer to the latter view.
10 At *Ethics* Ip20, Spinoza says that God's existence and God's essence are "one and the same". However, see Silverman (2017) for an argument for the claim that the "one and the same" relation in Spinoza should not be understood as one of identity. See also Marshall (2009).
11 In the *Treatise on the Emendation of the Intellect,* Spinoza says, "[T]hat Thought is also called true which involves objectively the essence of some principle that does not have a cause, and is known through itself and in itself" (Spinoza 1985: §70). If the "principle" here refers to God, then Spinoza is saying that God lacks a cause. This appears to be a violation of the PSR, but perhaps Spinoza's claim here is restricted to efficient causes (God lacks an efficient cause, but has a formal cause, i.e., his essence).
12 See, for instance, van Inwagen (2009: 149–150). As van Inwagen (2009: 150) states, "a careful examination of the Principle shows that it has a consequence most people would have a very hard time accepting: that all true propositions are necessarily true." Philosophers who accept this formidable consequence include Della Rocca (2010), though in more recent work, Della Rocca argues against all distinctions (including the distinction between the contingent and the necessary).
13 Compare Bennett (1984: 115), van Inwagen (2009: 104–107), and Della Rocca (2010: 9n13) for versions of this argument. See Koons (1997) for a formulation of the argument in terms of a mereological aggregate instead of a conjunction.
14 It is worth noting that according to Dasgupta (2009), there are no irreducible individual facts, and so general facts obtain unreduced and without any instances witnessing them.
15 See also Tuomas Tahko's essay 'Structure' [Chapter27], Ricki Bliss's essay 'Fundamentality' [Chapter23], and Scott Dixon's essay 'Infinite Descent' [Chapter16] in this volume.
16 For incredibly useful feedback and discussion, many thanks to Michael J. Raven, Michael Della Rocca, Dominic Alford-Duguid, and the audience at the May 2018 workshop on grounding at the University of Hamburg.

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