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Inquiry and Metaphysical Rationalism

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ABSTRACT

According to an important version of the Principle of Sufficient Reason, every fact has a metaphysical explanation, where a metaphysical explanation of some fact tells us what makes it the case that the fact obtains. I argue that, so long as we have not yet discovered that any fact is *brute*, we ought to be committed to this version of the principle—henceforth ‘the PSR’—because it is indispensable to a species of inquiry in which we ought to engage. I argue, first, that a practical indispensability argument applied to this species of inquiry supports a commitment to the PSR. I then show that we ought to engage in this inquiry. If my argument succeeds, then our attitude at the outset of such inquiry should not be agnosticism about whether any particular fact has a metaphysical explanation. Instead, we ought to be committed to the PSR.

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Those who are lovers of wisdom must be
inquirers into many things indeed.

Heraclitus

1. Introduction

According to the Principle of Sufficient Reason, every fact has an explanation for why it obtains. This Principle of Sufficient Reason was a prime rationalist tenet held in different forms and to varying extents by Spinoza, Leibniz, Du Châtelet, and Kant (among others). But it has since fallen out of vogue: few philosophers now endorse any version of the principle.¹ I will argue that the wholesale contemporary dismissal of the Principle of Sufficient Reason is unwarranted, for a particular kind of inquiry—one in which, I will argue, we ought to engage—entails a commitment to a version of this principle.

Inquiry is a familiar and ubiquitous activity in which most of us engage most of the time. When we engage in it, we have an epistemic goal: there is something that we want to know. Some epistemic goals are banal (perhaps I want to know whether my favourite coffee shop is open today), others more urgent (I am starving and want to know if

¹ Some notable exceptions include Pruss [2002] and Della Rocca [2010]. Dasgupta [2016] also sketches—though does not defend—a rationalist position on which the relevant sense of explanation involved in the Principle of Sufficient Reason is metaphysical.

the berries that I picked in the park are poisonous). Yet other goals are more philosophical (perhaps I want to know what exists, or what I need to do to be a good person). My interest lies with a particular sort of inquiry—that for which the epistemic goal is to know why a given fact obtains. Not all inquiry is fact-oriented in this way. For example, when I want to know where I left my car keys, or want to know what exists, I am not seeking an explanation for a fact. By contrast, when I want to know why blue whales are endangered or why my favourite coffee shop is closed today, I am seeking explanations for facts—that blue whales are endangered, and that my favourite coffee shop is closed today, respectively.

Fact-oriented inquiry again comes in many varieties. The fact-oriented inquiry in which I am interested seeks to explain *what makes it the case* that any given fact obtains. Let us call this *structural inquiry*.² One engages in structural inquiry just in case one seeks to explain what makes it the case that any given fact obtains.

I develop my argument in two stages. First, I argue that structural inquiry commits innocent inquirers to the PSR, where an *innocent inquirer* is a structural inquirer (henceforth ‘inquirer’) who has yet to discover that any fact is brute. Second, I show that we ought—in the epistemic sense of ‘ought’—to engage in structural inquiry. From these two claims, it follows that, as long as we have not discovered that any fact is brute, we ought to be committed to the PSR. A central upshot of my argument is this: before we discover that any fact is brute (that is, lacking an explanation), we ought to be committed to the claim that every fact has an explanation. That is, instead of adopting an agnostic attitude towards whether facts whose explanations we have yet to discover actually have explanations, we ought to be committed to their having explanations.

What does it mean to say that structural inquiry commits inquirers to the PSR? The commitment in question is cognitive.³ Belief is a paradigmatic cognitive commitment, but not all cognitive commitments are beliefs. For our purposes, let us say that one is *cognitively committed to p* if accepting *p* is rationally required by something that one already believes.⁴ This criterion provides a sufficient condition for a cognitive commitment. For example, suppose that Sally believes that the Eiffel tower is over ten feet high. She is thereby cognitively committed to the Eiffel tower being over five feet high, even if she might not believe it. Or suppose that Sam believes that the bank was robbed. He is thereby cognitively committed to there being a bank. When I say that structural inquiry commits us to the PSR, this is the sense of commitment that I have in mind. Importantly, even if the PSR were false, it could still be the case that we ought to be committed to the PSR. Thus, while an argument for the truth of the PSR is also an argument for the claim that we ought (in the epistemic sense) to be committed to the PSR, an argument for the claim that we ought to be committed to the PSR is not an argument for its truth.

I proceed as follows. In section 2, I discuss the central notion of an explanation in more detail. In section 3, I discuss an action-theoretic thesis that bridges the gap

² I’ve chosen the label ‘structural inquiry’, in part because the kind of inquiry whose goal is to seek explanations for facts seeks to uncover—albeit in a piecemeal fashion—the explanatory structure of reality.

³ There are other senses of the term ‘commitment’, on which a commitment is akin a promise or obligation. For example, I might say that I am committed to my partner, or to my country. These are not senses of ‘commitment’ with which I am concerned in this paper.

⁴ Unless we are (implausibly) rationally required to accept all of the logical entailments of our beliefs, the criterion that I provide here does not entail that someone is cognitively committed to all that is logically entailed by their beliefs.

between an intention to explain and the commitment to there being an explanation for a fact that one intends to explain. In section 4, I build on the result in section 3 and show that structural inquiry commits an innocent inquirer to the PSR. In section 5, I discuss what it might take for an innocent inquirer to discover a brute fact. In section 6, I argue that we ought to engage in structural inquiry, and thus ought to be committed to the PSR.

2. What Is Explanation?

As I have characterized it, *those who engage in structural inquiry seek to know what makes it the case that a given fact obtains*. Let us call this kind of epistemic demand a demand for ‘*metaphysical explanation*’. A metaphysical explanation tells us *what makes it the case* that a given fact obtains.

Metaphysical explanation comes apart from other varieties of explanation. For example, a causal explanation for why there is a chair in my office is that the building custodian brought it into the room, but a metaphysical explanation for why there is a chair in my office might be that some particles are arranged chair-wise. Likewise, a rationalizing explanation for the fact that Jane attended the conference might be that she wants to improve her employment prospects. But a metaphysical explanation—telling us what makes it the case that Jane attended the conference—might be that she was a member of an audience at an event where some prominent researchers gave presentations.

I focus on metaphysical explanation, for three reasons. First, it is arguably the core explanatory notion at play in historical discussions of the PSR.⁵ This continuity is important, for it contextualizes the current project: the PSR, historically understood, was taken to have significant consequences for both theology and philosophy, such as the commitment to God’s existence and to monism (the Spinozistic view that our world is the only possible world). If a contemporary defence of a commitment to the PSR were successful, a natural next step would be to investigate the alleged historical consequences of the commitment. Second, metaphysical explanation lends itself to a completely general and unrestricted version of the PSR. By contrast, some facts—such as that two plus two is four—are apt for neither a causal explanation nor a rationalizing explanation. Nevertheless, we can formulate restricted versions of the PSR for these latter notions of explanation: *a causal PSR might state that every fact apt for a causal explanation has an explanation, and an action-focused PSR might state that every fact apt for a rationalizing explanation has an explanation*. My argument for a commitment to the PSR, formulated in terms of metaphysical explanation, plausibly extends to these other versions of the PSR, but I will not make a full case for that claim here. Third, *I focus on metaphysical explanation because a commitment to a metaphysical PSR highlights an important constraint on contemporary metaphysical theorizing*. Such a commitment entails that it is methodologically impermissible at the outset of inquiry to remain agnostic about whether (or, worse, to assume that) some particular facts are fundamental, where a fact is *fundamental just in case it lacks a metaphysical explanation*. In other words, a commitment to a metaphysical PSR shifts the burden of proof: if innocent inquirers are committed to a metaphysical PSR, then the starting assumption in philosophical

⁵ See Amijee [2020] for an extended defence of this claim.

theorizing at the beginning of inquiry cannot be agnosticism about whether any particular fact or class of facts has an explanation (at least not without sacrificing rational coherence). Nor can it be the claim that any particular fact or class of facts is unexplained.⁶

The term ‘explanation’ has cognitive connotations, suggesting that there could be no explanation if there were no agents doing any explaining. Yet ‘metaphysical explanation’ is a term of art. It refers to what an agent who knows all of the facts—including facts about what metaphysically explains what—would be in a position to use in metaphysically explaining something. This construal of metaphysical explanation contributes to rendering it continuous with the early modern notion of a ‘sufficient reason’. Leibniz, for instance [1714: 209], says this:

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’s statement of the principle implies that a sufficient reason is a reason that ‘someone who knows enough things’ could in principle provide.⁷

For ease of exposition, I will speak as if ‘metaphysically explains’ picks out a relation that holds between those facts that serve as *explanans* and *explanandum*. So, instead of ‘someone who knows all the facts and the dependence relations that hold between them could metaphysically explain a fact *q* by reference to a fact *p*’, I will simply say ‘*p* metaphysically explains *q*.’

Metaphysical explanation is closely related to the contemporary notion of grounding. However, my argument does not require endorsing any particular view about how grounding relates to metaphysical explanation. Indeed, even the sceptic about grounding can accept the notion of a metaphysical explanation. Finally, I remain neutral on the formal features of such explanation: it might be irreflexive (or not), transitive (or not), and so on.

3. The Intention-Belief Thesis

I have characterized structural inquiry as fact-oriented inquiry in which an inquirer seeks metaphysical explanations for facts. In this section, I will show that, if a widely held thesis about intention is true, one cannot rationally structurally inquire into a given fact without the belief that one is able to metaphysically explain (henceforth ‘explain’) that fact. That is, if one structurally inquires into a fact, then one must believe that one is able to explain that fact.

Seeking an explanation for a fact does not entail that it has an explanation: you could seek an explanation for a fact even if, unbeknownst to you, it has no explanation. Relatedly, ‘seeking’ is an ‘activity term’ as opposed to an ‘accomplishment term’, for one could qualify as someone who seeks (say, the fountain of youth) even if one never succeeds in finding it.⁸ However, I will show that it follows from a thesis

⁶ One may, of course, arrive at the view that there are some unexplained facts by ruling out the alternatives. If the argument for the claim that there are some unexplained facts does not rely on structural inquiry into any fact, then there is a good question whether such an argument defeats the commitment to the PSR on the part of innocent inquirers generated by inquiry. I address this question in section 4.

⁷ Spinoza, too, seems to be committed to the claim that a ‘perfect intellect’ could explain everything (cf. Lin [2018]).

about intention that the intention to structurally inquire (the intention to seek an explanation for a given fact) entails that one believes that one is able to explain the fact. Let us call this action-theoretic thesis the ‘Intention-Belief’ thesis.

Intention-Belief Thesis. If a subject rationally intends to ϕ , she believes that she is able to ϕ .

The Intention-Belief thesis says that, in rationally intending to ϕ , I believe that I am able to ϕ *as a matter of fact*. I do not believe merely that, for all I know, I am able to ϕ . For example, if I rationally intend to take the six o’clock train into the city, I believe that I am able to take the six o’clock train. This belief rationally mandates various other commitments, such as to the existence of a train that runs at six o’clock: if there were no such train, I would not be able to take it.⁹

The Intention-Belief Thesis is weaker than the widely endorsed cognitivist claim that if a subject intends to ϕ then she believes that she is going to ϕ .¹⁰ First, the subject who rationally intends to ϕ believes only that she is able to ϕ , not that she will ϕ .¹¹ Second, the thesis restricts the relevant intentions to those that count as rational (and so someone with an irrational intention to ϕ might lack the belief that she is able to ϕ). As such, the Intention-Belief thesis is a normative claim: instead of saying that a belief that one is able to ϕ is necessary for the intention to ϕ , it says only that it would be irrational to intend to ϕ without the belief that one is able to ϕ .

Here I do not provide a direct argument for the Intention-Belief thesis. If the reader is inclined to reject the thesis, they may take my main argument to support a conditional claim whose antecedent is the Intention-Belief thesis. Now, someone engages in structural inquiry just in case they seek to explain a given fact. But one cannot seek to explain a given fact without intending to explain it. My interest lies in just those cases where this intention is rational. So, for my purposes, when one seeks to explain a fact, one rationally intends to explain it. By the Intention-Belief thesis, if I rationally intend to explain a fact, it follows that I believe that I am able to explain it.

Yet there are at least two ways in which one might try to resist the conclusion that the structural inquirer believes that she is able to explain any fact into which she inquires. First, one might argue that, when the structural inquirer seeks to explain a fact, what she really intends is to explain the fact *if it has an explanation*. Second, one might argue that when the structural inquirer seeks to explain a fact, she does so by intending to *try* to explain the fact. On both proposed views, even granting the Intention-Belief thesis, one can structurally inquire into a given fact rationally without the corresponding belief that one is able to explain the fact.

⁸ See Vendler [1957: 146] for the distinction between ‘activity terms’ and ‘accomplishment terms’. While seeking an explanation for a fact does not entail that it has an explanation, one would not qualify as seeking an explanation, and would thus not qualify as engaged in structural inquiry, if the target of one’s inquiry were a non-fact (e.g. a putative fact about phlogiston).

⁹ The claim here does not entail that I am not also committed, for instance, to there being no trains running on that day. I might be an irrational agent with inconsistent commitments. Or my commitments might be fragmented, in that I am rationally committed to two inconsistent claims (see Rayo [2013] for a detailed discussion of fragmented cognitive states).

¹⁰ Cf. Audi [1973], Harman [1976], Davis [1984], Velleman [1989], and Ross [2009].

¹¹ See Wallace [2001] for a proposal on which the belief involved in intending to ϕ is the belief that it is possible that one ϕ (i.e. a subject who intends to do something believes that it is possible for her to do what she intends). Although the language of ‘possibility’ might misleadingly suggest that the relevant claim is that, in rationally intending to ϕ , I am committed to ϕ -ing in some metaphysically possible world, the claim is rather that, in rationally intending to ϕ , I am committed to my being *able* to ϕ in *this* world.

On the first view, what the structural inquirer really intends when she inquires into a fact is to explain the fact *if* it has an explanation. By the Intention-Belief thesis, when the structural inquirer inquires into a fact, she believes that she is able to explain the fact *if* it has an explanation. However, I will argue that this construal of structural inquiry is untenable. The intention to explain a fact *if* it has an explanation takes the content of the intention to consist in a conditional claim. But one cannot act on such an intention except by first settling whether the antecedent of the conditional is true. If, for example, I intend to study at the library if it is open, I must first find out whether the library is open, and thus intend to find out if it is open. Likewise, if I intend to explain a fact if it has an explanation, I must first find out if it has an explanation. But, plausibly, to find out if the fact has an explanation, I generally must first intend to explain it.¹² Thus, the proposal on which the structural inquirer simply intends to explain a fact if it has an explanation does not succeed in doing away with the claim that the structural inquirer does generally intend to explain the fact *simpliciter*.

On the second view, what the structural inquirer really intends is just to *try* to explain a given fact. By the Intention-Belief thesis it would then follow only that the structural inquirer believes that she is able to *try* to explain the fact. I have a two-pronged reply. First, suppose that we grant the claim that the intention to try to explain a fact is coherent. This intention is a genuine alternative to construing structural inquiry as simply involving the intention to explain, only if we also grant the further claim that trying to explain does not require an intention to explain (and instead involves merely an intention to try to explain). But this further claim is highly controversial. McCann [1991: 29], for example, brings out what is problematic about it.

That assumption [namely that it is possible for a person to intend to try to A without intending to A] is difficult to defend, for the fact is that 'trying' is not a name for a kind of action ... a bare intention to try [to A] is not an intention I can act upon ... This is because there is no particular type of change we can bring about in the world that counts as a 'try'. Rather, 'trying' is a term that signifies the general business of acting in pursuit of some objective, a term that tends especially to be used when the objective is difficult to achieve. Thus my intention to try [to A] must be carried out by doing something else, aimed at achieving the objective of [A-ing].

Second, suppose that we do grant the further claim that trying to explain does not require an intention to explain. Then the intention merely to try to find explanations fails to adequately capture what structural inquiry is. Structural inquiry, like other forms of inquiry, is a goal-directed activity, whether the goal is understanding, knowledge, belief, or some other epistemic state. But the mere intention to try to find an explanation fails to capture the goal-directness that is central to what inquiry is. One could be successful in *trying* to find an explanation for a fact without ever reaching the kind of epistemic goal that is, intuitively, the end-result of successful inquiry. Just as detectives are in the business of solving crimes, and not of merely trying to solve crimes, inquirers are in the business of explaining facts, not of merely trying to

¹² There might be some cases where one can discover *if* a fact has an explanation prior to intending to explain it. One could, for example, hear the voice of God telling one that a given fact has an explanation, or one could find out through human testimony, or by realizing that the fact in question belongs to a class of facts that are known to have explanations. But even if there are such cases, they do not pose a threat to my argument for a commitment to the PSR. As we will see, all that is needed for my argument to succeed is the claim that, in at least some cases, the structural inquirer must intend to explain a fact *simpliciter*.

explain facts. Thus, both alternative accounts, of the intention that one has when one engages in structural inquiry, fail.

4. From Structural Inquiry to the PSR

My argument in this section will show that participating in structural inquiry commits an inquirer to the PSR. I will show that structural inquiry commits an inquirer to the PSR, by showing that each fact is such that any structural inquirer is committed to its having an explanation. To see why it must be the case that one is committed to the PSR if every fact is such that one is committed to its having an explanation, consider what the world must be like if the commitment to a fact's having an explanation tracks the truth. That is, imagine a world where, if an inquirer was committed to a fact having an explanation, the fact in question *had* an explanation. Every fact in such a world would have an explanation. But this world would then satisfy the PSR, for the PSR is just the claim that every fact has an explanation.

The argument that follows is restricted to those inquirers who are innocent—namely, those inquirers who are yet to discover that any fact is brute. By the Intention-Belief thesis, it follows from my rationally inquiring into a fact that I believe that I am able to explain it. But I would not be able to explain the fact if it lacked an explanation. Thus, believing that I am able to explain a given fact rationally requires accepting that the fact has an explanation.¹³ Hence, rationally inquiring into a fact entails a commitment to that fact's having an explanation. Let us call this commitment an 'explanatory commitment'. We now have our first main premise.

- (1) An inquirer who rationally intends to explain a fact is committed to its having an explanation.

With (1) in place, I move to the second premise. For any fact p , for it to be false that some inquirer or other can rationally intend to explain p , it would have to be the case that it is irrational for any inquirer to intend to explain p . Unless there is a fact that is 'nakedly brute',¹⁴ such that no one could rationally intend to explain it, it is difficult to see how a fact could be such that no one could rationally intend to explain it. And it is not clear that there are any nakedly brute facts.¹⁵ But perhaps there could be a fact that is such that it would be impossible for anyone to rationally intend to explain it, for reasons that have nothing to do with bruteness. Imagine the unfortunate scenario where the mere intention to explain a particular fact p triggers a great explosion, and that, moreover, all inquirers are aware of this threat. Surely it would then be irrational for anyone to intend to explain p . However, the sense of rationality with which I am concerned is not all-things-considered rationality, but simply epistemic rationality. In the epistemic sense, one could still rationally intend to explain p .

¹³ Some philosophers (see Fine [2012] and Litland [2017]) argue that a fact can be 'zero-grounded'—i.e. grounded with nothing that grounds it. On such a view, a commitment to being able to explain a given fact rationally requires a commitment to that fact's being grounded, rather than its having a ground (or explanation). For the purposes of this paper, I bracket the possibility of zero-grounded facts, but the argument of this paper succeeds, *mutatis mutandis*, even if one endorses such facts.

¹⁴ Thanks to Umrao Sethi for raising this possibility.

¹⁵ A nakedly brute fact would have to be one that is self-evidently brute. If the PSR is false, then there is a fact expressed by ' p is brute', where p is a fact that lacks a metaphysical explanation. But it doesn't follow that the fact that p is brute is itself brute, let alone self-evidently brute.

But suppose that all inquirers have already inquired into a given fact and discovered it to be brute. Even in this case, it would be true that every fact is such that some inquirer or other can rationally intend to explain it, for a past self of some inquirer or other *did* intend to explain it. Likewise, suppose that a fact is such that all inquirers have inquired into it and found an explanation. It is still true that every fact is such that some inquirer or other can rationally intend to explain it, for a past self of some inquirer or other *did* intend to explain it. This line of argument establishes our second premise.

(2) Every fact is such that some inquirer or other, at some time or other, can rationally intend to explain it.

That every fact is such that some inquirer or other, at some time or other, can rationally intend to explain it does not entail that every fact is knowable (thus bypassing concerns related to Fitch's knowability paradox).¹⁶ One can rationally intend to inquire into a fact even if one does not know the fact. I may, for example, ask 'What makes it the case that blue whales are endangered?' even if I do not satisfy the threshold for *knowing* that blue whales are endangered. All that I might need in order to inquire into the fact is a grasp of the fact.

The third and final premise of my argument concerns the nature of the practice of structural inquiry. I have shown that, by participating in such inquiry, a subject incurs a commitment to there being explanations for the facts into which she inquires. I will now argue that the commitments incurred by merely participating in structural inquiry include the explanatory commitments of other (actual and possible) participants in the practice.

To see why this must be the case, imagine a different yet (as I will show) analogous case. Suppose that every room in a building is such that some person or other can rationally intend to dance in it. Thus, even if, say, Sam cannot rationally intend to dance in a particular room, because he knows that it is structurally defective, someone who lacks such knowledge can. This supposition is analogous to claim (2) (discussed above), according to which every fact is such that some inquirer or other, at some time or other, can rationally intend to explain it. Now, when Evelyn rationally intends to dance in room R1, she believes—by the Intention-Belief thesis—that she is able to dance in R1. That is, she believes that R1 is *danceable*. But let us suppose that Evelyn could have rationally intended to dance in any other room. She could, for example, have rationally intended to dance in R2. By the Intention-Belief thesis, she would then have believed that R2 is danceable. Thus, Evelyn's belief that a given room is danceable has nothing to do with any intrinsic feature had by the room itself, and simply falls out of her rational *intention* to dance in it. If this is right, then it seems that Evelyn is committed to the danceability of every other room (where one is committed to *p* if accepting *p* is rationally required by something that one already believes). To suppose otherwise would be objectionably arbitrary: no explanation seems available for the claim that Evelyn believes that R1 is danceable yet isn't rationally required to accept the danceability of all other rooms. Her commitment to the danceability of all other rooms is thus generated by her belief that R1 is danceable, for, just as she rationally intended to dance in R1, she could have rationally intended to dance in any other room.

¹⁶ See Brogaard and Salerno [2019].

In the above case, we supposed that Evelyn could have picked any other room in which to dance. But it is not obvious that this claim is true—she could, for example, have no idea that room R3 exists, and thus not have picked R3 in which to dance. Analogously, the innocent inquirer might lack awareness of many facts, and so not be in a position to rationally inquire into them. We can get around this problem by tweaking the case: instead of saying that Evelyn could have intended to dance in any other room, suppose that, for every room, there is an actual or merely possible dancer who intends to dance in it. By the Intention-Belief thesis, each of these dancers believes that their particular room is danceable. Our claim is that Evelyn's belief that R1 is danceable commits her to the danceability of any other room. Because the belief that any particular room is danceable falls out of the dancer's intending to dance in that room and not from any intrinsic feature of the room or any fact about the dancer's competence, it would be objectionably arbitrary if Evelyn believed in the danceability of R1, yet was not committed to the danceability of any other room. What could account for her lack of commitment?

Let us return to structural inquiry. In the case discussed above, rooms are analogous to facts, and dancers are analogous to inquirers. While it might not be true that every fact is such that *I* can inquire into it, I have argued that every fact is such that some inquirer or other, at some time or other, can rationally inquire into it. Thus, corresponding to every fact is an actual or merely possible inquirer who intends to rationally inquire into it. By reasoning analogous to that arising for the dance case, it follows that an innocent inquirer who rationally intends to explain a fact shares the explanatory commitments of all possible inquirers who rationally intend to explain facts. For each inquirer, the explanatory commitment is generated simply by the inquirer's intending to explain a fact. Apart from being able to rationally intend to explain a certain fact, these inquirers need not be competent in any other way, and so our innocent inquirer has no reason to distrust the explanatory commitments of other inquirers. The explanatory commitment that is generated by structural inquiry 'does not care' about who is doing the inquiring. Thus, there is nothing to explain why the innocent inquirer is committed to there being an explanation for the fact into which she inquires and yet isn't committed to the explanatory commitments of other inquirers.

We now have our third and final premise.

(3) An innocent inquirer who rationally intends to explain a fact is committed to the explanatory commitments of all possible inquirers who rationally intend to explain facts.

Combining these premises, we can construct the following argument.

- (1) An inquirer who rationally intends to explain a fact is committed to its having an explanation.
- (2) Every fact is such that some inquirer or other, at some time or other, can rationally intend to explain it.
- (3) An innocent inquirer who rationally intends to explain a fact is committed to the explanatory commitments of all possible inquirers who rationally intend to explain facts.

So,

(4) for any fact that someone could rationally intend to explain, an innocent inquirer is committed to there being an explanation. [From (1) and (3)]

Hence,

(5) every fact is such that an innocent inquirer is committed to its having an explanation.

[From (2) and (4)]

This argument establishes that every fact is such that the innocent inquirer thereby incurs a commitment to its having an explanation.

If every fact is such that the innocent inquirer is committed to its having an explanation, then the innocent inquirer cannot consistently be committed also to a specific fact being brute. However, someone who is committed both to a fact being brute and to its having an explanation need not be rationally incoherent. She might, for example, not be aware of one of the relevant commitments, or not be aware of the inconsistency in her commitments (due to being in a fragmented belief state). But if she is not in a fragmented state and is aware of both commitments, then she should re-evaluate her commitments in light of the evidence. Perhaps her commitment to the bruteness of a given fact falls short of the *discovery* of bruteness and should thus be relinquished.

5. The Fall from Eden

My argument in section 4 established that any innocent inquirer who engages in structural inquiry is committed to the PSR. However, once an inquirer loses their innocence, their commitment to the PSR is defeated. What might it take to discover that a fact is brute, and thereby to lose one's innocence as an inquirer? It might be that the standard for the discovery of bruteness is very high, such that it is nearly impossible to discover that a fact is brute. A proponent of this high standard might contend that it is not enough to have searched for, and failed to find, an explanation for a particular fact, since one can always search harder. On the other hand, it might be that the standard for discovery of bruteness is quite low, such that having *some* evidence that a fact lacks an explanation—perhaps in the form of failed attempts to explain the fact—suffices for the discovery of bruteness. I do not take a stand in this paper on what it takes to discover that a fact is brute, but there is at least some reason to think that the standard for discovery of bruteness should not be low. Just as a history of failed attempts to explain a particular scientific phenomenon is not generally a reason to conclude that the phenomenon in question is inexplicable, the mere failure to find an explanation for a fact—especially when one has not tried very hard—is no reason to conclude immediately that the fact in question lacks an explanation. To assume otherwise would be to suppose without argument that there is a sharp distinction between scientific practice and metaphysical theorizing.¹⁷

What happens when an innocent inquirer discovers a brute fact? Such an inquirer can still participate in structural inquiry, without incurring a commitment to the PSR. However, the facts yet to be discovered to be brute are nevertheless such that this inquirer is committed to their having an explanation. This is because the inquirer, by engaging in structural inquiry, is still committed to the explanatory commitments

¹⁷ Cf. Bickhard [2018] and Vintiadis [2018]. Bickhard argues that, if naturalism is true, it is always appropriate to ask further questions, and that the spirit of scientific investigation is violated by endorsing brute facts. Likewise, Vintiadis notes that Hempel and Oppenheim [1948: 152] criticized the acceptance of brute facts on the ground that it encourages 'an attitude of resignation which is stifling for research'. See also Taylor [2018], who argues that we should be more hesitant when it comes to accepting brute facts.

of all possible inquirers who intend to explain facts that the original inquirer has not yet discovered to be brute.

Might the commitment to the PSR be defeated without engaging in inquiry? Suppose, for example, that an agent comes to the view that there must be some unexplained facts that constitute a 'foundation' for reality, and thus that a version of metaphysical foundationalism is true. It seems conceivable that the agent might arrive at this conclusion without inquiring into any particular fact, simply by ruling out alternative possibilities (such as the possibility of an infinite explanatory regress).

Such an agent would not, however, be in a position to defeat the commitment to the PSR. I have argued that every fact is such that an innocent inquirer is committed to its having an explanation. Suppose that the domain of facts is exhausted by facts *p*, *q*, and *r*. Then an innocent inquirer can also be committed to the claim that some facts are nevertheless unexplained, without sacrificing their rational incoherence, so long as the inquirer is not aware that *p*, *q*, and *r* exhaust the domain of facts. For, while the two commitments are not jointly satisfiable, this is not sufficient for one commitment to act as a defeater for the other. Acquiring a defeater for the innocent inquirer's commitment to the PSR requires more than a general argument for the existence of unexplained facts: at a minimum, they must acquire a commitment which is such that maintaining both that commitment and their commitment to the PSR would make them rationally incoherent. However, there is an interesting consequence that arises when one considers the rational situation of an innocent inquirer who accepts the argument of this paper. Such an inquirer will not only have a commitment to the PSR (in the sense explained), but will know that they have this commitment, and this will in turn commit them to all facts having an explanation. As a result, an innocent inquirer who accepts the argument of this paper will be able to maintain a simultaneous commitment to brute facts only at the cost of rational incoherence.

6. The Obligation to Engage in Structural Inquiry

According to classical indispensability arguments, we ought to be committed to a theory's ontological commitments only if we have independent reason to think that the commitment-conferring theory is true. Thus, not just any theory can confer commitment via an indispensability argument: only the *best* theories can. Similarly, we ought to be committed to a practice's commitments only if we have independent reason to adopt the practice. For instance, the practice of singing songs of praise to Zeus seems to require an ontological commitment to Zeus, but it is unclear whether we have independent reason to adopt such a practice.

What reason do we have to participate in the practice of structural inquiry? One kind of reason to participate in a given practice has to do with the consequences of the practice (cf. Sosa [1980]). These consequences might be moral (perhaps the practice relieves suffering, or results in a more just society), but they might also be epistemic. It might be that the practice results in gains in knowledge, or in understanding. Adoption of the practice could then be *epistemically* required just in case the practice tends to produce various epistemic consequences. In the case of structural inquiry, these consequences take the form of 'structural understanding', where one structurally understands why a given fact obtains, by grasping its metaphysical explanation.

In this section, I defend an obligation to participate in structural inquiry by establishing two claims. (1) Structural inquiry is our best rational means¹⁸ to *structural understanding*, where one structurally understands why a given fact obtains by grasping its metaphysical explanation. (2) The pursuit of structural understanding is rationally non-optional for us.¹⁹ These two claims jointly entail that we ought to participate in structural inquiry.

6.1 The Practice of Schminquiry

Structural inquiry is one means to structural understanding. But it is not obvious that we should engage in structural inquiry—or even that we do engage in it—if there is an alternative practice available that offers the same epistemic benefits. Call ‘schminquiry’ the practice whose participants seek to explain p , where p is some *explainable* fact. The schminquiring subject need only be committed to the explainability of those facts that are explainable. But this commitment does not get us a commitment to the PSR; it gets us only a commitment to the existence of explanations for those facts that *have* explanations. It is thus crucial for my argument for a commitment to the PSR that we ought to engage in structural inquiry, rather than schminquiry.

I contend that either schminquiry requires that one first engage in structural inquiry, or one cannot engage in schminquiry. To engage in schminquiry is to perform an intentional action. An agent’s action counts as intentional only if there exists an appropriate relation between that action and her intention to perform it. In particular, an intentional action counts as such only when the agent possesses practical knowledge of what she is doing. And an agent’s intention to ϕ will constitute practical knowledge of her ϕ -ing only if that intention non-luckily (in other words, non-accidentally) selects a non-lucky (in other words, non-accidentally successful) means to its own fulfilment.²⁰ Hence, if an agent’s intention to ϕ merely luckily selects a means to its own fulfilment, or selects a merely lucky means to its own fulfilment, she will lack practical knowledge of her ϕ -ing, and will consequently not count as intentionally ϕ -ing.

I argue that, unless the innocent inquirer has already structurally inquired into a fact, her intention to schminquire cannot non-luckily select a non-lucky means to its own fulfilment, and thus she cannot schminquire at all. Suppose that an innocent inquirer S intends to schminquire into a fact p . If p were to lack an explanation, then (unbeknownst to S) S would not be engaged in schminquiry. Yet whether p has an explanation is not something that the innocent inquirer can establish in advance of structural inquiry or schminquiry. Hence, if S seeks to explain p with an intention to schminquire, it will (from S ’s rational standpoint) be a matter of mere *luck* that her intention is fulfilled. For, in forming her intention, S will remain unable to rule out rationally relevant possibilities on which p fails to have an explanation. So, even if her intention selects a non-lucky means to its fulfilment (seeking an explanation for p rather than some brute fact q), it will do so luckily: it could easily have selected a means that fails to lead to its fulfilment (for example, seeking an explanation

¹⁸ A means is rational in this sense when we have grounds for treating it as a reliable means to the relevant end.

¹⁹ An anonymous referee helpfully suggests that this same conclusion follows from the weaker (and thus easier-to-defend) premise that structural inquiry is simply *valuable*. I would be satisfied if this were true. I defend the stronger premise that structural inquiry is rationally non-optional for us, because I suspect that, without such a strong premise, the corresponding ‘ought’ claim will be too weak.

²⁰ See Dickie [2015: ch. 3] for a clear statement of this view, a view that she attributes to Anscombe on the basis of Velleman’s [1989] work.

for q rather than for p). Thus, S 's intention to schminquire into p will fail to constitute practical knowledge of S 's schminquing into p , unless S has already isolated those facts that have explanations from those that do not. But if S 's intention to schminquire cannot constitute practical knowledge of her schminquing, S cannot schminquire. Thus, it is either the case that schminquiry requires structural inquiry, or it is not a practice in which one can engage. Hence, in so far as we want to attain structural understanding, engaging in schminquiry instead of structural inquiry is not a viable option.

6.2 The Value of Structural Inquiry

It remains to show that the pursuit of structural understanding is rationally non-optional for us. In his *Metaphysics* (1:1), Aristotle claims 'All men by nature desire to know.'²¹ If our desire for knowledge follows from our nature, then it would seem that the pursuit of knowledge is rationally non-optional for us. I will argue that if the pursuit of knowledge enjoys such a status, so does the pursuit of structural understanding.

It seems plausible that the pursuit of knowledge is intrinsically valuable, and this is at least in part because the pursuit of truth seems intrinsically valuable. If we are right about the value of truth, it is difficult to see why the pursuit of structural understanding would not be just as intrinsically valuable: in every instance of structural understanding, we acquire the truth that a fact is explained by another fact (or facts).

Intrinsic value aside, the pursuit of knowledge is also instrumentally valuable. Williamson [2000: 101] argues for the instrumental value of knowledge over mere true belief when he says that 'given rational sensitivity to new evidence, present knowledge makes future true belief more likely than mere present true belief does.'²² But we might easily claim something similar about structural understanding: the pursuit of structural understanding is valuable because it puts us in a position to acquire future true beliefs. Suppose, for instance, that the fact that there is a conference occurring here is explained by the fact that there is a list of speakers scheduled to talk, an audience asking questions, etc. If I were to know what explains the fact that there is a conference taking place here, I would be in a position to form true beliefs about conferences every time that I am confronted with a collection of facts similar in kind to the one that explains the fact that there's a conference taking place here.

Structural understanding also puts us in a position to understand a greater range of facts. Metaphysical explanation tends to obey a systematicity constraint, such that facts of a kind are explained in the same sort of way. Thus, for example, if some conjunctive facts are explained by their conjuncts, then all of them are. Likewise, if some material objects are explained in part by reference to their origins, then all of them are. If this systematicity constraint holds, then understanding one fact puts us in a position to understand other facts of the same (relevant) kind. Thus, just as knowledge (on Williamson's view) makes future true belief more likely than does mere true belief, understanding would seem to make future understanding more likely than mere knowledge does.

²¹ If humans have by nature a desire to know, and if such a desire is rational (i.e. issued by the rational part of the soul), then it would seem that, on Aristotle's view, pursuit of knowledge is rationally non-optional for us. A full defence of this claim, however, goes beyond the scope of this paper.

²² There's some controversy over whether knowledge is more valuable than justified true belief or mere true belief, but I'll put aside that issue, as the reasons for doubting that it's *knowledge* (rather than truth) that is valuable don't carry over to the case of understanding.

One might object that any value had by structural understanding is subsumed by the value that we place on knowing the truth. If right, this objection would threaten the claim that structural understanding is *distinctively* valuable, and thus the claim that structural inquiry is non-optional for us.

In reply, I suggest that structural understanding does seem to be distinctively valuable. First, it seems to be even more intrinsically valuable than the mere pursuit of truth, for **it involves grasping something of the relationship between truths**, and thus grasping something about how the world is structured. If the pursuit of truths is intrinsically valuable, then surely knowing how those truths relate to one another is also intrinsically valuable.²³ Second, the fact that structural understanding puts us in a position to know and understand other truths has value that remains *even if* it were to turn out that acquiring truths for their own sake is not valuable.²⁴ The acquisition of truths might be valuable only when those truths are relevant to us; but surely the class of relevant truths will always include those that structural understanding puts us in a position to know. These considerations support my claim that engaging in the practice of structural inquiry is rationally non-optional for us. If I am right that engaging in that practice is our best (if not only) means to structural understanding, and that pursuing such understanding is rationally non-optional for us, then we ought to participate in structural inquiry, and so ought to take on the commitments that we incur from engaging in that practice. And I have argued that one such commitment is a commitment to the PSR.

7. Concluding Remarks

My argument establishes our commitment to the PSR in its full generality: no distinction is made between contingent and necessary facts. So, structural inquiry commits us to the principle that every fact—whether contingent or necessary—has an explanation. The argument also remains neutral on the question of whether the project of structural inquiry involves purely *a priori* investigation, or also involves investigation that is *a posteriori*. Structural inquiry into mathematical facts seems to be an instance of inquiry wherein the investigation is purely *a priori*, but other cases are less clear. It seems plausible that the understanding of scientific facts (for instance) requires a *posteriori* investigation.

My argument also effectively splices (and thus improves upon) two traditional arguments for a commitment to the PSR. The first takes the principle to be somehow self-evident. The second treats the PSR as a condition for the satisfaction of our primitive desire to understand the world. My argument shares with the first a focus on the incoherence (in my case, practical incoherence) that attends a denial of the PSR. It shares with the second an appeal to the satisfaction conditions of one of our desires or goals (namely structural understanding).^{25,26}

²³ See Hills [2016: 678–9] for a related discussion of the distinctive intrinsic value of understanding.

²⁴ Consider, for instance, the objection by Sosa [2001] to the claim that the acquisition of truth is our prime epistemic goal. Such a goal would be satisfied even by acquiring a large number of trivial truths, such as truths about the phone numbers of people listed in a phonebook.

²⁵ See Pruss [2002: chs. 11, 14] for clear statements of the two traditional arguments.

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