RATIONAL FOUNDATIONALISM

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By

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RATIONAL FOUNDATIONALISM

OR, HOW THE FUNDAMENTAL BEING WHICH EXPLAINS EVERYTHING ELSE ITSELF HAS AN EXPLANATION IN ITSELF, THAT IS, IN ITS PROPER PARTS, OF WHICH THERE ARE THREE THAT MUTUALLY EXPLAOIN EACH OTHER

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Everything that exists has an explanation of its existence. Philosophers have used this principle in arguments for the existence of something ontologically fundamental, an ultimate ground of being, such as God. But if everything has an explanation of its existence, so, too, does whatever is fundamental. I analyze what five prominent historical figures—Anselm, Aquinas, Descartes, Spinoza, and Leibniz—have said about how a fundamental being, a being that exists *a se*, is explained. While none are satisfactory, several lessons are drawn from them to construct a novel proposal, which requires a new way of thinking about absolute and relative fundamentality. If what is fundamental is identified with God, certain Scholastic doctrines about the divine nature, such as absolute simplicity, will have to be abandoned—a consequence that I argue is a virtue rather than vice of the proposal.

BIOGRAPHICAL SKETCH

C. A. McIntosh earned his B.A. in Philosophy at Calvin College, and M.A. in Philosophy at Cornell University

For

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ACKNOWLEDGMENTS

Three is a magic number
Yes, it is, it's a magic number
Somewhere in that ancient mystic Trinity
You get three as a magic number
The past and the present and the future
The faith and hope and charity
The heart and the brain and the body
Give you three as a magic number
A man and a woman had a little baby
Yes, they did
And they had three in the family
That's a magic number

There are many people I have to thank for their role, big or small, in helping me complete this dissertation. There are my Calvin College and Cornell University cohorts. Calvin: Prof. Stephen Wykstra, whose gifts as a teacher are unparalleled; Cameron Gibbs and Joshua Schendel, to whose friendship and wit I owe much. Cornell: David Kovacs, Philippe Lemoine, Fran Fairbairn, Brandon Conley, and Eric Epstein, among others, helped me through many conversations (and drinks). My advisers Derk Preboom, Karen Bennett, and Scott MacDonald. Karen, in particular, somehow always met my obstinacy and turtle-paced thinking with supernatural patience. What virtues I lack as a student she more than made up for as an advisor. Others who in some way helped me with the ideas herein include Ted Sider, Simon Evnine, Achille Varzi, Ben Arbour, Jannai Shiels, Tully Borland, and William Vallicella. Finally, and perhaps most of all, I am indebted to

Cornell philosophy department secretary Pamela Hannah, who went far beyond her duties in helping me navigate the bureaucratic morass of graduate school. Thank you.

And, of course, there are friends and family. My parents, including my in-laws, whose proud support I cherish (Scott McIntosh, Cindy and Kevin Kelly, Jim and Dominica Wei). My dear late Nanna, who always asked with genuine interest about my studies. My hometown friends, Shawn Isaacs, Todd Jefferson, and Ben Walker, who have never shied from philosophical conversation.

The School House Rock lyrics are apropos for, appropriately enough, three reasons. First, their relevance to my main argument should be obvious. Second, I learned them from Blind Melon's cover, a band I cannot hear without thinking of my dear friend Will Ard. Will taught me many things, such as what good music is, how to street race, how to look cool while smoking a cigarillo (it's not easy!), how to be a pool shark, how to think about disability and the resurrection, and how to be a proper bum (also not easy!). Perhaps most importantly, he taught me how death can be at once an enemy and a friend. Will unexpectedly passed away just before my first semester of graduate school. I miss him more than words can express.

It was my wife, Lizzy, who taught me how not to be a bum. Thus I come to the third and final reason for the lyrics: Lizzy agreed to patiently wait for me to finish this dissertation before having kids. Impatience overcame my procrastination, giving us Aletheia Zhen McIntosh on October 17th, 2018. There is indeed three in the family. It is to Lizzy this dissertation is dedicated. Ecclesiastes 4:9-12

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INTRODUCTION

Despite what the title of this dissertation may suggest, it is not a work in epistemology. What normally goes by "foundationalism" is the view in epistemology that all rational beliefs rest on a foundation of basic beliefs that need no further justification. Putting "rational" in front only compounds the epistemological connotations. Truth is, "rational foundationalism" is an uncreative mash up of two views is metaphysics: metaphysical rationalism and metaphysical foundationalism. I could have chosen a less misleading title, but I grew attached to it after seeing the horrified look on all the epistemologists' faces who showed up to hear a talk on "How to be a Rational Foundationalist" at various conferences over the years.

Metaphysical rationalism is the view that some version of the principle of sufficient reason (PSR) is true. Every thing that exists has a sufficient reason for its existence, let's say. Metaphysical foundationalism is the view that the chain of things which depend for their existence on other things eventually traces back to an independent, fundamental being (or beings) that serves as the foundation of being generally. In chapter 1, I explain how metaphysical rationalism and metaphysical foundationalism are natural bedfellows, for it has long been argued that the former entails the latter; i.e., if the PSR is true, then there must be something fundamental, an "ultimate ground" of being, such as God.

But if you're going to be both a metaphysical rationalist and a metaphysical foundationalist—a rational foundationalist, if you will—then you must think whatever is fundamental itself has an explanation of its existence. How does that work? It can't be found in anything prior and "external" to what is fundamental, else *that* be what is fundamental. Thus, historically, many philosophers argued that whatever is fundamental,

unlike all else that exists whose explanation is in *other* beings, has its explanation "in itself." But what does this mean, exactly? In chapter 2 I survey what a handful of historically prominent figures—Anselm, Aquinas, Descartes, Spinoza, and Leibniz—have said about this, and argue none offer satisfactory accounts.

We can nonetheless learn from these venerable precedents several important lessons, which I detail in chapter 3. The first lesson is that we need to get clear on what explanatory dependence relation is at work when determining satisfactory explanations of things, especially at the foundational level of reality, for not all dependence relations have the same formal or "structural" properties. Grounding, understood as an explanatory metaphysical dependence relation, is serviceable enough. The second lesson is that a richer notion of what means to be independent—and, correlatively, fundamental—is needed. It cannot simply be 'not dependent…period' as that rules out the possibility that there be an internal explanation of what is fundamental. But that is precisely what is needed. The final lesson is perhaps the most crucial. If we appeal to something internal to what is fundamental to explain its existence, the next question, then, is what explains *that*? In order to avoid vicious regress and circularity problems, we need some form of mutual dependence, or grounding, between several things internal to what is fundamental. Most putative cases of mutual ground, however—those featuring a binary relation where *x* wholly grounds *y* and vice versa—are viciously circular. But there are other putative cases unlike those, cases which feature a kind of interlocking grounding web between at least three things. Such cases, I argue, are much more promising examples of non-vicious mutual dependence.

With these lessons learned, I go on in chapter 4 to sketch my own proposal of how to be a rational foundationalist, the bare bones of which are as follows. First, the richer notion of independence sufficient for the task must allow that an independent being—that is, an absolutely fundamental being—depend on, and so be explained by, something internal to itself. The most obvious candidate here is a thing's parts. Making use of that more promising form of mutual dependence explored in chapter 3, I argue that the fundamental being's parts are in turn explained by each other, leaving nothing unexplained. This more complex notion of absolute fundamentality also requires a novel account of relative fundamentality. Contrary to the popular view that something is more or less fundamental based on its proximity to what is absolutely fundamental, I argue that something is more or less fundamental based solely on the number of things it depends on: the fewer, the more fundamental.

In the fifth and final chapter I summarize the main steps of the overall account and situate it within the context of cosmological arguments. Enthymematically stated, the argument of this dissertation amounts to this: if the PSR is true, then there exists a fundamental being that has three mutually dependent parts. Simplicity considerations enjoin us to not venture beyond the bare necessity of three. If this is what a fundamental being must be like, we can narrow extant candidates down to just those which fit that profile. I consider the objection that such a tripartite being cannot be God since God is traditionally conceived of as being absolutely simple, and argue that this tradition is philosophically and theologically misguided. I conclude by emphasizing how important it is not just for those who accept the PSR, but for everyone committed to rational inquiry, to pursue a workable proposal of how to be a rational foundationalist.

CHAPTER 1

RATIONAL FOUNDATIONALISM: PRELIMINARIES

> Moreover, almost all sciences contain notions of causes from which the effects may be determined, and likewise other notions of necessities of consequents from grounds or reasons, as will be found in our further observations; this has been expressed by Aristotle in the following words: "All knowledge which is of a theoretical nature, or is in any way connected with the theoretical, is concerned with grounds and principles." (Metaphysics, V. 1.) Now as it is the assumption, always made a priori by us, that everything has a reason or ground which justifies us in everywhere asking why, this why may be called the mother of all sciences. … *Nihil est sine ratione cur potius sit quam non sit*. Nothing is without a ground or reason why it is.
>
> Schopenhauer (F, 5-6)

> Nothing exists without a reason. For nothing exists without the aggregate of all its requisites. (A requisite is that without which the thing cannot exist; the aggregate of all requisites is the full cause of the thing.) … From this it follows that even if we assume the eternity of the world, we cannot escape the ultimate and extramundane reason for things, God.
>
> Leibniz (AG, 150)

1.1. Metaphysical Rationalism

"Nothing exists unless a sufficient reason of its existence can be given," writes Leibniz (G, VII, 309), enunciating what he called his "great principle," or what is commonly

known as the Principle of Sufficient Reason (PSR). Referring to *the* Principle of Sufficient Reason, however, is misleading, as there is no *one* principle, even in Leibniz's own writings.[1] One finds any number of different versions at the heart of any project of rational inquiry, be it scientific or philosophical. But the intuitive heart of the PSR is the idea that *everything* admits of rational explanation. Following Shamik Dasgupta, let us call the view that some version of the PSR is true *metaphysical rationalism*.[2]

I am quite certain that metaphysical rationalism is true. I should say at the outset, however, that an especially popular version of the PSR, according to which every fact—i.e., a true proposition—has an explanation, will be set aside in this dissertation. Many philosophers have argued that this version of the PSR falls prey to modal collapse; that is to say, it entails that all propositions are necessarily true.[3] Regardless of how one might respond to this objection,[4] I will be concerned with a version of the PSR that avoids it entirely, hinted at by the quotations from Leibniz above. This version, found in the writings of many philosophers throughout history (as we shall see), is about the *existence* of *things*—principally but not necessarily exclusively of concrete things—rather than the obtaining of facts, abstract states of affairs, or the truth of propositions. With some

[1] For discussion of the multiple versions of the PSR in Leibniz, see Craig (1980), pp. 257-281 and Mates (1986), pp. 154-162. For discussion of the PSR as found in Leibniz and several of his contemporaries, see Gurr (1959). For discussion of historical and contemporary versions of the PSR, see Pruss (2006) pp. 3-71.

[2] Dasgupta (2014).

[3] See van Inwagen (1983). The argument, in brief: All contingent truths have an explanation. The conjunction of all contingent truths has an explanation. That explanation can't itself be a contingent truth, because then it would be its own explanation, which is impossible. So the explanation must be a necessary truth. But whatever is entailed by a necessary truth is itself necessary. So, if all contingent truths have an explanation, there are no contingent truths.

[4] See Vallicella (1997), Pruss (2006), Schnieder and Steinberg (2015), and Levey (2016) for responses.

qualifications to be made in due course, the PSR that I will assume is true is: every thing that exists has an explanation of its existence.

We can think of reasons for the existence of things in this sense as similar to Aristotelian causes. There is a reason why a house exists. In fact, there are multiple reasons why a house exists. There is the house's design or blueprint. There is the material it is constructed out of. There is the purpose for which it was built in the first place. And finally and perhaps most poignantly, there is the builder himself. Most things, like houses, have several distinguishable reasons for why they exist. All of the reasons for why something exists will factor into a complete explanation of its existence. Nonetheless, it is convenient to state our PSR in simpler terms, referring to *a* or *the* reason for something's existence, it being implicit that 'reason' here functions as a singular shorthand for however many reasons factor into a thing's complete explanation. *A* or *the* reason for a thing's existence, then, is a thing's complete explanation.

1.1.1. The PSR

Why accept the PSR? A responsible treatment of arguments for the PSR is beyond the scope of this dissertation, which takes the PSR for granted. Here we shall instead content ourselves with a brief summary of a handful of considerations in its favor. We will have occasion to do so once more in the final chapter, §5.5.[5]

[5] For a thorough treatment of arguments for the PSR, see Pruss (2006), which contains fuller expositions and defense of several of the arguments summarized here. In addition to Pruss (2006), see Della Rocca (2010) and Dasgupta (2016).

As implied above, the PSR is commonly taken to be presupposition of rational inquiry, and as such is simply assumed rather than argued for. In the preface to his *Metaphysics*, Aristotle writes: "For it is owing to their wonder that men both now begin and at first began to philosophize; they wondered originally at the obvious difficulties, then advanced little by little and stated difficulties about the greater matters, e.g. about the phenomena of the moon and those of the sun and the starts, and finally about the genesis of the universe" (982b 13-17. A, 1554). Why assume there are explanations for "obvious difficulties" and, from there, even "greater matters," but deny that holds true for everything whatever? As far as empirical generalizations go, this is as sure as it gets. We should assume everything has an explanation unless and until we encounter an exception.

But here a difficulty emerges. If heretofore in our experience the PSR has been exceptionless for all things great and small, when would we be justified in taking something to actually be an exception, as opposed to evidence of our ignorance of the explanation? Would not the latter be what is justified? It would seem that for something to justifiably be taken as an exception to the PSR, there must be something discernable about it that seems to positively *preclude* explanation—the very nature of the thing suggests inexplicability. Is there anything like this? Theoreticians often posit brute or primitive entities in their theories. But these, it should be stressed, are merely *treated* as inexplicable within a system for theoretical purposes. It would be a mistake to assume primitives *are* inexplicable just because of the theoretical role they play in a system (Indeed, often the primitives in one system are explicable in a meta-system). Would God, the universe or fundamental particles or the wave function be candidate exceptions? Some think so. But even they, I will argue, should be no exception, so long as a plausible

explanation can be given of their existence. The foregoing is not an argument for the PSR *per se*, but for the conclusion that as a matter of methodological practice we should presume the PSR is true, and that the prospect of our being justified in believing there are exceptions to it are dim. But here are three further considerations in favor of the PSR.

First, it is self-evident. Many have held the PSR to be self-evidently true and therefore without need for further justification, much like certain mathematical or logical axioms. Rather than being deduced themselves, axioms are proper starting points of a *scientia* from which other principles are deduced. In this sense, the PSR certainly seems to be akin to axioms. True, others may deny that the PSR is self-evident to them, but, So what? Some also deny that the Peano Axioms or the Law of Noncontradiction or the Law of Excluded Middle are self-evident to them. As the crude analogy goes, some philosopher's denial of the self-evident truth of the PSR no more undermines it's being self-evident to the rest of us than a colorblind person's inability to see red undermines the veridicality of the *our* perceptions of color. It is the colorblind person's inability to see red that is out of sorts, not ours.

Second, inference to the best explanation, employed everyday by laymen, philosopher, and scientist alike presupposes the PSR. If you do not accept the PSR, on what grounds can you rule out the hypothesis that there is no best explanation of some particular phenomenon because there just *is no* explanation of that phenomenon? You can't rule out the 'no explanation' hypothesis because it's impossible, since that would be to accept the PSR. Nor can you rule it out because it's improbable, since probabilities are based on objective conditions, that is, *reasons*, which would be *ex hypothesi* absent were the 'no explanation' hypothesis true. Hence, if the PSR is not true, there is no way of ruling out

the hypothesis that for some particular phenomenon there is no explanation. But we are clearly justified in ruling out the 'no explanation' hypothesis all the time—so much so, in fact, that any apparent exception is justifiably taken to be indicative of our ignorance of the explanation rather than an actual lack of one.

Someone might respond to this argument the way one might to a radical skeptical hypothesis: sure, it's possible that I'm a brain in a vat, but I know I'm not, and know that in a basic way. Similarly, it's possible that some phenomena have no explanation, but I know some things have explanations, and know that in a basic way. The problem with this response, however, is that if the PSR is false, then we cannot even rule out the hypothesis that it's impossible or even improbable that there is no explanation at all for how I know things in a basic way. For this reason, it has been argued that denial of the PSR entails radical epistemological skepticism.[6]

A final, somewhat cheeky consideration in favor of the PSR: if the PSR isn't true, then magic is possible. But magic is not possible. Thus, the PSR is true.[7] Let's define magic as any power, cause, or event that is intrinsically unintelligible. Clearly, if the PSR is true, then nothing is intrinsically unintelligible. Now imagine a magician doing the seemingly impossible: pulling a large rabbit out of a top hat. Sure, your background evidence tells you that there's a trick to the feat that makes it perfectly intelligible. But if you don't accept the PSR, then you cannot say that the feat is strictly impossible. Perhaps like many philosophers, the magician denies the PSR and staked everything on the possibility that just as he reaches into the hat, there'd actually appear a rabbit there, inexplicably. Why not? As per a previous point, if the PSR is false, we can't even say that

[6] See Koons (1997) and Koons and Pruss (2020).

[7] I borrow this argument from Paulo Juarez.

such an event would be improbable. Indeed, presuming the PSR is false, we might ask, as some philosophers have, why *don't* we ever observe things—rabbits or anything else—popping into existence uncaused from nothing? The fact that we do not is evidence that the PSR is true.

Much more can and has been said on behalf of the PSR. But, as I've stressed, this is not a dissertation in defense of the PSR. I proceed on the assumption that the PSR is true for the sake of exploring certain of its philosophical consequences; namely, how might a fundamental being have an explanation.

1.1.2. The PSR and the Existence of a Fundamental Being

One thing of enduring interest surrounding the PSR is whether it implies the existence of a fundamental being, like God. Leibniz certainly thought so, arguing that an "ultimate reason for things" must exist beyond the world, for "we cannot find in any of the individual things, or even in the entire collection and series of things, a sufficient reason for why they exist" (AG, 149). This is so, Leibniz thought, even if we assume the world is eternal with an infinite past, for

> however far back we might go into previous states [of the world], we will never find in those states a complete explanation [ratio] for why, indeed, there is any world at all, and why it is the way it is. I certainly grant that you can imagine that the world is eternal. However, since you assume only a succession of states, and since no reason for the world can be found in any one of them whatsoever (indeed, assuming as many of them as you like won't in any way help you to find a reason), it is obvious that the reason must be found elsewhere. … From this it follows that even if we assume the eternity of the world, we cannot escape the ultimate and extramundane reason for things, God. (AG, 150)

Leibniz's argument has found many defenders over the years. In the introduction to his book on the PSR—the only contemporary monograph on the PSR of which I am aware—Alexander Pruss observes that "despite some noble dissent, it now appears generally established that once one grants an appropriate version of the PSR, it follows that there is a necessary first cause of the cosmos, that is, of the aggregate of all contingent being."[8] This is no doubt true of our version of the PSR, that every thing that exists has an explanation of its existence. Or so it has been argued, and I shall assume.

Despite the number of different versions of the PSR, some general observations can be made concerning them as a group. First, they all employ some dependence relation between things and their reasons. In Leibniz's argument mentioned above, for instance, there is an assumed dependence between succeeding states of the world. This is more obvious in an illustration Leibniz uses for the argument:

> Let us suppose that a book on the elements of geometry has always existed, one copy always made from another. It is obvious that although we can explain a present copy of the book from the previous book from which it is copied, this will never lead us to a complete explanation, no matter how many books back we go, since we can always wonder why there have always been such books, why these books were written, and why they were written the way they were. What is true of these books is also true of the different states of the world, for the state which follows is, in a sense, copied from the preceding state. (AG, 149)

[8] Pruss (2006), p. 4. Could this be what's behind philosophers' dismissive attitudes toward the PSR? "Theophobia," as Pruss calls it, would only be a concern if there are good reasons for identifying the fundamental being to which the PSR leads with God. I have little to say about that here, and will assume only that the PSR does indeed give reason to think there exists at least one fundamental being.

Some sort of dependence relation between the books in the series is no doubt in mind, where any one copy in the series depends on the previous copy. So it is with states of the world: any state depends on the preceding state. There is also the assumed dependence of the world on that which ultimately explains it, although Leibniz sees this as a different sort of dependence. He writes:

> Therefore the reasons for the world lie hidden in something extramundane, different from the chain of states, or from the series of things, the collection of which constitutes the world. And so we must pass from physical or hypothetical necessity, which determines the later things in the world from the earlier, to something which is of absolute or metaphysical necessity… For the present world is physically or hypothetically necessary, but not absolutely or metaphysically necessary. That is, given that it was once such and such, it follows that such and such things will arise in the future. Therefore, since the ultimate ground must be in something which is of metaphysical necessity, and since the reason for an existing thing must come from something that actually exists, it follows that there must exist some one entity of metaphysical necessity. (AG, 150)

Whatever exactly is meant by "physical or hypothetical necessity," when it is said that an earlier thing "determines" a later thing, it is implied that the latter is dependent in some way on the earlier. Moreover, whatever exactly is meant by "metaphysical necessity," the things in the world are thought to depend on "some one entity of metaphysical necessity."

Other arguments in the neighborhood of Leibniz's are much more forthright about the nature and role of dependence. Consider Samuel Clarke's. Clarke argues that "there has always existed some one unchangeable and independent being from which all other beings that are or ever were in the universe have received their origin" (D, 10). Otherwise, "there has been infinite succession of changeable and dependent beings produced one

form another in an endless progression without any original cause at all," for its cause can be neither from within nor from without. He explains:

> … it is plain this whole series of beings can have no cause from without of its existence because in it are supposed to be included all things that are, or ever were, in the universe. And it is plain it can have no reason within itself for its existence because no one being in this infinite succession is supposed to be self-existent or necessary (which is the only ground or reason of existence of anything that can be imagined within the thing itself…), but every one dependent on the foregoing. … An infinite succession, therefore, of merely dependent beings without any original independent cause is a series of beings that has neither necessity, nor cause, nor any reason or ground at all of its existence either within itself or from without. (D, 10-11)

To one who accepts the PSR, such a scenario is absurd, and "is only a driving back from one step to another and, as it were, removing out of sight the question concerning the ground or reason of the existence of things" (D, 11). As is evident from these remarks, Clarke's argument is cast explicitly in terms of dependence. Clarke, in fact, is clear that the dependence is robustly ontological in character. His argument, after all, is intended to establish the existence of an ontologically *independent* being—a being whose existence does not ontologically depend on anything else.[9]

Other examples could be enumerated. The history of metaphysics could arguably be viewed as a history of cosmological arguments, many of which attempt to arrive at the existence of a fundamental being from observations about causation, contingency, and composition, where to be a caused, contingent, or composite being is to be,

[9] A very similar argument is given by the nineteenth century Catholic priest Bernard Bolzano, although his reliance on the PSR is more implicit. For discussion of Bolzano's argument, see Simons (1987), pp. 321-323.

fundamentally, a dependent being.[10] When a PSR is at work, then, so too is some dependence relation.

The second general observation about versions of PSR in general is simply that, whatever dependence relation is in view (be it causation, composition, or whatever), it is also assumed to be an *explanatory* relation. As Kathrin Koslicki explains, it is natural to think explanations track dependence:

> As a number of writers have noted, it is plausible to think that dependence and explanation are related in something like the following way: an explanation, when successful, captures or represents (e.g., by means of argument or an answer to a "why"-question) an underlying real-world relation of dependence of some sort which obtains among the phenomena cited in the explanation in question. Thus, a successful causal explanation for example gives expression to (linguistically or otherwise) an underlying real-world relation of causal dependence which obtains between events or whatever the preferred relata of the causal relation are. If this connection between explanation and dependence generalizes, then we would expect relations of ontological dependence to give rise to explanations within the real of ontology, in the sense that a successful ontological explanation captures or gives expression to an underlying real-world relation of ontological dependence of some sort.[11]

Common though this observation is, it is important: one way we discover things' explanations is by discovering what they depend on. Thus, generally speaking, it is safe to assume that if *b* depends on *a*, then *a* (at least partly) explains *b*.

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[10] One thinks of Leibniz's remark, "metaphysics is natural theology" (AG, 237). In fact, some have suggested, not implausibly, that some version or other of the PSR is serviced in *all* cosmological arguments. See Reichenbach (1972) and Rowe (1975). Craig bristles at that suggestion (1980, pp. 282-291). The point turns on how widely "reason" and "cause" are understood, which has, Craig rightly complains, been a source of much confusion surrounding cosmological arguments.

[11] Koslicki (2012), pp. 212-213.

Taking these two observations together, we see that PSR-based arguments for the existence of a fundamental being rely on explanatory dependence relations between the existence of things, and we can trace those dependence relations back to the existence of an explanatory ultimate, fundamental being. For this reason the PSR has been central to defenses of what Jonathan Schaffer calls *metaphysical foundationalism*, the view that there is some "basic, ultimate, fundamental unit of being."[12]

1.2. Metaphysical Foundationalism

Epistemic foundationalism—most closely associated Leibniz's fellow rationalist, Descartes—is the view that the justification of our beliefs must ultimately derive from certain basic beliefs, or beliefs whose justification does not depend on other beliefs. Schaffer describes a metaphysical counterpart to epistemic foundationalism:

> Just as the epistemic foundationalist thinks all warrant must originate in basic warrant and rejects limitless chains of warrant and circular warrant, so the metaphysical foundationalist thinks all being must originate in basic being and rejects limitless chains of dependence (metaphysical infinitism) and circular dependence (metaphysical coherentism). There must be a ground of being. If one thing exists only in virtue of another, then there must be something from which the reality of the derivative entities ultimately derives.[13]

[12] Schaffer (2009), p. 351.

[13] Schaffer (2010), p. 37

In the absence of an "ultimate ground" (i.e., something fundamental), "being would be infinitely deferred, never achieved," as Schaffer's pithily puts it.[14]

Although metaphysical foundationalism is often introduced by analogy with modern epistemic foundationalism as preceding it, the former has a richer and more venerable historical pedigree than the latter.[15] Given that, in general, things depend on other things, rejecting viciously circular and regressive orders of dependence has been a common argument strategy for arriving at the existence of something fundamental for millennia. The earliest, most succinct statement of the metaphysical foundationalist's style of argument of which I am aware is the tenth century Islamic philosopher al-Fārābī:

> Contingent beings … have had a beginning. Now that which begins to exist must owe its existence to the action of a cause. This cause, in turn, either is or is not contingent. If it is contingent, it also must have received its existence by the action of another cause, and so on. But a series of contingent beings which would produce one another cannot proceed to infinity or move in a circle. Therefore, the series of causes and effects must arrive at a cause that holds its existence from itself, and this is the first cause.[16]

The above passage is also reminiscent of the first three of Aquinas' Five Ways, which need not be rehearsed here.[17] What I want to do now is make a few comments about the

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[14] Ibid., p. 62.

[15] But see the discussion of Agrippa's Trilemma, which has its origins in ancient Pyrrhonian skepticism, in Franks (2005), for historical precursors to modern epistemic foundationalism. Thanks to Daniel Smyth for this reference. See also Ruben's discussion of a similar trilemma in an epistemological context (infinite regress of explanations, circular explanations, or inexplicability or self-explanation) at work in Plato and Aristotle in Ruben (1990), pp. 103-104.

[16] Quoted in Craig (1980), p. 83. The influence of Aristotle is transparent.

[17] Shades of similar arguments can be found in Anselm, Richard of St. Victor, Avicenna, Maimonides, St. Albert the Great, and others. See Copleston (1950). I discuss Anselm and Aquinas at length in §2.1. and §2.2.

metaphysical foundationalist's rejection of infinite and circular chains of dependence, beginning with the latter.

1.2.1. Vicious Circularity

There are straightforward and powerful reasons to reject circular chains of dependence, at least as they are standardly conceived. We can distinguish two forms of circular dependence, reflexive and symmetric. Claude Gratton's definition of a circular chain in his book *Infinite Regress Arguments* captures this well. A circular chain is a finite concatenating series in which a term *t*, a recurrence of the same numerically identical *t*, and either (a) all the relational statements, constructed from a binary relation, between *t* and its recurrence, e.g., *tRaRbRt*, or (b) simply a single relational statement in which it immediately relates to itself: *tRt*.[18] So where *D* is a binary ontological dependence relation and *a* is the term, reflexive (*aDa*) and symmetric (*aDbDa*) dependence relations qualify as circular, as in both cases there is a relation that goes from *a* and returns to *a*.

It is commonly assumed that if *b* depends on *a* for its existence, then the dependence in question must be irreflexive and asymmetric. That is to say, ontological dependence, in its numerous varieties, is generally thought to be a priority relation. If *b* depends on *a*, then *a* is prior to *b* in the order of being (and in some cases also temporally). But cases of reflexive and symmetric dependence will then run into priority problems (cases of trivial dependence, such as identity and improper parthood, do not count). A thing that is reflexively dependent, or self-dependent, would seem to have to bootstrap itself into

[18] Gratton (2010), p. 199. Gratton uses the term "loop" where I use "circular."

existence: it would have to exist prior to bringing itself into existence. But how could *a* be ontologically prior to *a*? That is viciously circular. Call scenarios of vicious reflexive dependence *bootstrapping* scenarios.

Things are symmetrically dependent when they depend on each other in the same way: *b* depends on *a* and *a* depends on *b*, and the dependence relation is identical (*bDa* and *aDb*). At least *prima facie*, cases of symmetric dependence also run into priority problems: if when *b* ontologically depends on *a*, *a* is ontologically prior to *b*, how, then could *b* also be prior to *a* when a depends on *b*? This, too, seems viciously circular. Either the chicken or the egg came first. Call scenarios of vicious symmetric dependence chicken-or-egg scenarios. I will say more about these in §3.3.

1.2.2. Vicious Regresses

The metaphysical foundationalist's rejection of infinite chains of dependence is less straightforward than the rejection of circular chains. It's not infinite chains of dependence just as such that are problematic. There are, everyone acknowledges, benign infinite regresses,[19] such as the truth regress, where the prefix "it is true that," or T, can be appended indefinitely to any true proposition *p*: if *p* is true, or T(*p*), then it is true that *p* is true, or T(T(*p*)), and T(T(T(*p*))), and so on *ad infinitum*. Something similar can be said of the regress of natural numbers generated once zero and the successor function of the Peano axioms are assumed. Simply put: zero is one number. So there are two numbers: zero and one. So there are three numbers: zero, one, and two. So there are four numbers.

[19] I don't mean to assume anything about the direction of dependence by using the term "regress." It could be ascending or descending, both in either direction, or whatever.

And so on.[20] These regresses do not pose any special problems with (at least the concepts of) true propositions or natural numbers, and so are harmless.

There is a lot less agreement on paradigmatic examples of vicious infinite regresses, but perhaps the most oft-cited example is what we can call a turtles-all-the-way-down scenario. According to philosophical lore, after a physics lecturer suggested that the gravitational forces of other astronomical bodies explained the Earth's location in space, an impatient old lasy balked at the idea that the Earth could just be "floating" there. The lady insisted instead that the Earth rests on the shell of a galactic turtle. In response to the lecturer's question, "And what is the turtle resting on?", the lady replied "It's turtles all the way down." Now, the problem with the lady's theory isn't just that galactic turtles don't exist. The problem is that even supposing they did exist, postulating an infinite number of them one on top of another does not wind up explaining anything. Rather, it defers explanation indefinitely. Alexander Pruss comments:

> We only accepted the tortoise as explanatory because we thought we were moving close to the ultimate explanation of the Earth's failure to fall. Once we learn that we are no closer to such an explanation, we may no longer see the tortoise as explanatory. And it makes no difference here how many tortoises we have; be it one, two, three, or infinity, the Earth is just as unsuspended.[21]

The point isn't that *a* is not a legitimate explanation of *b* if *a* itself needs explanation. That would render all explanation illegitimate. The point is that we assume a legitimate explanation of *b* is one that moves us closer to *b*'s sufficient explanation, where a

[20] For insightful discussion, see Tennant (1997).

[21] Pruss (2006), pp. 55-56.

sufficient explanation is one that does not itself call out for explanation.[22] Or, more modestly, an sufficient explanation is one that does not call out for explanation *in the same sense* of explanation called out for by the original *explanandum*. In other words, what we need is a fitting terminus in a chain of like explanations. This leaves open the question of whether that explanatory terminus itself needs explanation, albeit explanation of a different type. After acknowledging that a regress of sufficient reasons for "the series of things distributed throughout the universe of creatures" could well be infinite in number and detail, Leibniz says "since this detail involves nothing but prior or more detailed contingents, *each of which needs a similar analysis in order to give its reason, we do not make progress in this way*. It must be the case that the sufficient reason or ultimate reason is outside the sequence or series of this multiplicity of contingencies, however infinite it may be" (AG, 217-218).[23] In the galactic turtle regress, no turtle in the chain—the first or an infinitely distant one—gets us closer to a sufficient explanation, because any one calls out for explanation in exactly the same way the Earth originally did. Our puzzlement is not in the least bit reduced as turtles are enumerated. Whether we're talking about chains of turtles one stacked "all the way down" or chains of things ontologically dependent on other things "all the way down" makes no difference.

So the problem with the turtle regress is a kind of explanatory failure. But not all infinite regresses exhibit this kind of explanatory failure, so we must narrow our focus only to those that do. In scholastic jargon, so-called regresses ordered *per accidens* do not seem to exhibit the explanatory failure of turtles-all-the-way-down scenarios. A paradigm

[22] Ibid., p. 17.

[23] Italics mine. All of the accounts we look at in the next chapter distinguish between having an explanation in something else and having an explanation in itself, the latter being how a fundamental being is thought to be explained.

example of an infinite regress ordered *per accidens* is what we might call the ancestral regress, which Aquinas describes:

> [I]t is not impossible to proceed to infinity accidentally as regards efficient causes; for instance, if all the causes thus infinitely multiplied should have the order of only one cause, their multiplication being accidental, as … it is accidental to this particular man as generator to be generated by another man; for he generates as a man, and not as the son of another man. For all men generating hold one grade in efficient causes—viz. the grade of a particular generator. Hence it is not impossible for a man to be generated by man to infinity. (ST I.46.2.7)

The idea is that although I may depend on my father as the cause of my existence, I do not depend on my father for myself to act as a cause of someone else's existence (i.e., by begetting a child). Accordingly, if one seeks the sufficient reason (in terms of causal explanation) for my child's existence, my father need not enter into the explanation; I am sufficient. The causal power transferred in begetting is not transitive: my father begat me and I begat my child; my father did not beget my child. Likewise for anyone in the chain of begetting: the sufficient reason for their existence will be found in the persons immediately preceding them. Aquinas is here conceding that an infinite regress of one man begetting another is not impossible, or at least that it cannot be shown to be impossible. He would thus agree with Hume and Russell that as long as the sufficient explanation of each member of a chain is found in the immediately prior member there is no need to appeal to a first member as an ultimate explanation or to an explanation of the chain as a whole.[24]

[24] To my mind, the ancestral regress gets needlessly complicated when you think more about the genetics involved. The father, obviously, is not a sufficient cause of a child by himself. And, arguably, neither are

In contrast to regresses ordered *per accidens*, in Scholasticese, are regresses ordered *per se*. A paradigm example of a regress ordered *per se* is a chain of locomotion. To quote Aquinas again, himself relying on Aristotle:

> In an ordered series of movers and things moved (this is a series in which one is moved by another according to an order), it is necessarily the fact that, when the first mover is removed or ceases to move, no other mover will move or be moved. For the first mover is the cause of motion for all the others. But, if there are movers and things moved following an order to infinity, there will be no first mover, but all would be intermediate movers. Therefore, none of the others will be able to be moved, and thus nothing in the world will be moved. (SCG I.13.14)

The example Aquinas gives in the *Summa* is of a stone being moved by a stick and the stick by a hand. The motion of the stone depends on the motion of the stick, but the motion of both ultimately depends on the hand as the first mover. We need not agree with Aquinas that a series ordered *per se* cannot be infinite, but instead agree with Leibniz that regardless of how many members there are in the series, be it finite or infinite, the explanation for why any one is moved is not sufficiently explained by its predecessor.

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both parents if you think about where they got the material to produce their joint effect (the child). So a better example is in the popular admonition to "pay it forward", where the recipient of a good deed is encouraged to respond in kind by performing a good deed themselves, which (theoretically) encourages the recipient of that good deed to do likewise, and so on. In the movie *Pay it Forward*, one kid's act of kindness starts a chain reaction of acts of kindness that goes global. Now, obviously, any one recipient of kindness is not under any compulsion to "pay it forward." The causal chain can stop with anyone. Furthermore, in a "paying it forward" series, the sufficient reason for any one person's act of kindness is found in the immediately previous person's act of kindness alone, *not* a remote predecessor's. That there are remote predecessors is accidental, precisely because any one recipient could have terminated the series. Thus, there is no need to appeal to a "first act of kindness" to explain the latest. The current recipient, inspired by the act of kindness shown to him, could be totally unaware of being the latest in a long chain of acts of kindness—a chain that could, in principle, stretch into the infinitely distant past.

Recourse will need to be made to a first mover, even if infinitely distant, which will serve as the sufficient and ultimate explanation of the movement of the rest.

Other examples of series ordered *per se* are closer to our topic, such as Leibniz's stack of books. Clearly the position of the top book depends on the book on which it rests. So, too, for *that* one's position, and so on down the stack. Yet it can't be "books all the way down," as it were. There must be a bottom book (or something on which the bottom book rests, or, at minimum, something that explains the existence of the bottom book). That there is a book on top at all requires there be a bottom. Otherwise, the stack of books would be "infinitely deferred, never achieved." So it is with turtles, and so it is with ontologically dependent beings generally, according to the metaphysical foundationalist.

To placate anxious critics, I should say that Hume's famous "fallacy of composition" objection here has no force at all, for one will not find the sufficient reason in any member of a series ordered *per se* without reference to a fitting explanatory terminus, something "outside" or "first" in the explanatory chain (more on this below). Denying the need for an outside or initial or member as the ultimate reason in such a series is manifestly absurd, as Patterson Brown's example effectively illustrates:

> Mr. Alpha is in his automobile, stopped at an intersection. Immediately behind him sits Mr. Beta in his own car. Behind Mr. Beta is Mr. Gamma, behind whom is Mr. Delta, and so on indefinitely. Suddenly Alpha's car is rammed from the rear, damaging his bumper. So Alpha, desiring to recover the expense of repairing his automobile, accuses Beta of having caused the accident, and brings suit against him. Beta, however, successfully defends himself in court on the grounds that he had himself been rammed into Alpha by Gamma. So Alpha now sues Gamma. But the latter, it turns out, had in turn been rammed by Delta. So Alpha takes legal action against Delta. And so on indefinitely. Now, if this series of rammings extended *ad infinitum*, there would be no one whom Alpha could

> successfully sue as having caused the dent in his bumper; there would, in short, have been *no* cause for the accident at all. But if there were no cause, no mover, then there would be no effect, no moved, either—which is patently false, since Alpha's bumper *is* dented and his car *was* moved.[25]

The fact that there was an accident, the fact that there is a book on top of the stack, the fact that there is a world made up of ontologically dependent beings all require an ultimate *explanans*—and this remains so even if, *pace* Brown, Mr. Alpha had to traverse an infinite number of cars behind him to find the right person to sue.[26]

It should be noted, as commentators on Aquinas' arguments are quick to point out, that whatever temporal order there is in the series mentioned above is irrelevant. Copleston writes: "It is not the possibility of an infinite series as such which St. Thomas denies, but the possibility of an infinite series in the ontological order of dependence. In other words, he denies that the movement and contingency of the experienced world can be without any ultimate and adequate ontological explanation."[27] Likewise, Feser: "by saying that there must be a first mover, he [Aquinas] doesn't mean first in order of time, but rather first in the sense of being most fundamental in the order of what exists."[28] Metaphysical foundationalists may therefore be understood as rejecting the possibility of an infinite series of dependent beings ordered *per se* which lack a fitting explanatory terminus either "outside" or "first" in the series.

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[25] Brown (1976), p. 234-235.

[26] Extending the regress to infinity only seems to compound problems, however. For if we start with the assumption that some phenomena in a series requires explanation, but keep passing the explanatory buck to prior members in that series, you will not wind up with any explanation at all, contrary to the initial assumption.

[27] Copleston (1950), p. 342.

[28] Feser (2009), p. 69.

The best way to formally state the difference between these two kinds of ordered series is unclear. Drawing on Scotus' criterion that members in a series ordered *per se* are causally dependent on their predecessors *qua* causes whereas members in a series ordered *per accidens* are not, Patterson Brown offers the following more formal suggestion: a causal series is ordered *per se* just in case *a*'s being *F* causes *b* to be *G*, *b*'s being *G* causes *c* to be *H*, *c*'s being *H* causes *d* to be *I*, …, where *Fx*, *Gx*, *Hx*, *Ix*, etc. may or may not be identical functions; a causal series is ordered *per accidens* just in case *a*'s being *F* causes *b* to be *G*, *b*'s being *H* causes *c* to be *I*, *c*'s being *J* causes *d* to be *K*, …, where $Gx \neq Hx$ and $Ix \neq Jx$, but otherwise *Fx*, *Gx*, *Hx*, *Ix*, *Jx*, and *Kx* may or may not be identical.[29] Thus we have:

Per se: $(Fa \rightarrow Gb)$, $(Gb \rightarrow Hc)$, $(Hc \rightarrow Id)$, …

Per accidens: $(Fa \rightarrow Gb)$, $(Hb \rightarrow Ic)$, $(Jc \rightarrow Kd)$, …

where, in either series, the functions and variables can differ from each other within the brackets, but in a series ordered *per se* the last term of a preceding bracket (e.g., *Gb*) must be identical to the first term in the succeeding bracket (*Gb*) and in a series *per accidens* they must be distinct (*Gb*, *Hb*).[30] So we have, in the first case, the hand (*a*) moving (*F*)

[29] Brown (1976), pp. 223-224.

[30] An alternative, and I think preferable, way of representing each series makes clearer the important role of the first term in a series ordered *per se*:

Per se: $Fa \rightarrow (Gb \rightarrow (Hc \rightarrow (Id \rightarrow \ldots)))\ldots)$.

Per accidens: $(Fa \rightarrow Gb) \rightarrow (Hb \rightarrow Ic) \rightarrow (Jc \rightarrow Kd)$, …

Another advantage of representing the chains this way is that it shows the dependence between members in a series ordered *per se* is clearly one-many, whereas it is one-one in a series ordered *per accidens*. Cf. Kerr (2012).

the stick (*b*) moving (*G*) the rock (*c*), and so on; and in the second case my father (*a*) copulating with my mom (*F*) and my mom begetting (G) me (*b*), me (*b*) copulating with my wife (*H*) and my wife begetting (*I*) my son (*c*), and so on.

However it is best to formally represent the difference, the substantive difference between the two kinds of series should be clear: in a series ordered *per se*, each posterior member's causal power is concurrently derived from a prior member's causal power (or, perhaps better: each member is dependent for activating its causal power on the prior member activating its causal power), whereas in a series ordered *per accidens* each member's activation of a causal power is non-concurrently derivative. Each member in a series ordered *per accidens* may have received its causal powers from a prior member, but once it has, it can activate that power on its own, so to speak.[31] In other words, the function is transitive in series ordered *per se* but intransitive in series ordered *per accidens*. Although the scholastic discussions translated the general function as "cause," once we recall the broader senses of that word (which can take as its function Aristotelian causes, reasons, grounds, etc.), the chains of dependence the metaphysical foundationalist is concerned with may be understood to be between beings ordered *per se*, where one being's existence is concurrently or coincidently derived from one or more others in such a way that, *sans* a particular ultimate explanation, being generally is left unexplained.

Before moving on, I should note that the language of "moving closer to" the ultimate explanation—i.e., something fundamental—is potentially misleading. The idea is not that an infinite chain of dependence is viciously regressive if, by hopping from one being in the chain to the next, we don't get closer *in proximity* to the fundamental being, for it's

[31] Feser (2014), pp. 148-154. Bearing in mind "concurrence" is not necessarily temporal.

hard to see how one could move closer to something infinitely far away (if that's even possible).[32] If this were the idea, then the metaphysical foundationalist would think *all* infinite chains of dependence are vicious, which, as I've labored to show, they do not or at least need not. To repeat, the idea is rather that an infinite chain of dependence (ordered *per se*) is viciously regressive if it lacks reference (one way or any other) to something which brings explanatory closure to the series because it does not require like explanation. Taking that which brings explanatory closure to the chain of ontologically dependent beings ordered *per se* to be fundamental (F), we can illustrate how this is requirement is compatible with various infinite chains as follows:

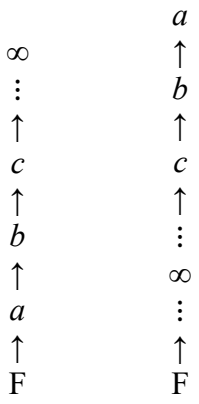

Fig. 1

Fig. 2

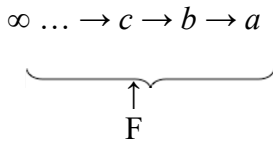

Fig. 3

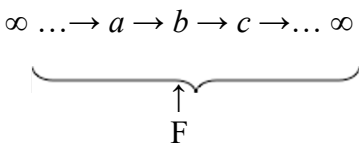

Fig. 4

In Figs. 1-2, the infinite chains are not viciously regressive because each has an initial member, albeit infinitely distant, something fundamental to ultimately ground the chain of non-fundamental beings "from within". In Figs. 3-4, the infinite chains are not viciously regressive because each has something fundamental to ultimately ground the

[32] I say much more about the proximity view of relative fundamentality in §4.2.

chain of non-fundamental beings "from the outside." No member of any chain can be fully explained without reference to F, as F is the ultimate explanation of each of the chains. If we imagine Earth as *a* in either Fig. 2 or 3, and the descending letters our galactic turtles, the regresses are no longer vicious because in neither chain is it *just* turtles all the way down: the turtles are ultimately explained by some non-turtle, F, whose nature is such that it need not rest on anything.

The metaphysical foundationalist, therefore, can happily accept infinite chains of ontological dependence supposing such chains are explanatory ultimate grounded by something that does not require explanation in the same sense.[33] An infinite regress ordered *per se* without an explanatory ultimate exhibits explanatory failure that comes just shy of formal contradiction: if we start with the assumption that some phenomena in a series requires explanation, but the explanatory buck is indefinitely passed to prior members in that series, you will not wind up with any explanation at all, contrary to the initial assumption.

1.3. Rational Foundationalism

Up to this point one will likely assume that metaphysical rationalism and metaphysical foundationalism are natural bedfellows. Whether we're confronted with a finite or infinite

[33] It is common to see metaphysical foundationalism described as the view that all grounding chains are well-founded. I think this terminology is unhelpful. It is clear from typical descriptions of metaphysical foundationalism that its fundamentality requirement is broader in spirit than can be neatly captured in terms of minimal elements and lower bounds (just look at Figs. 3 and 4), so using a set-theoretic notion of well-foundedness, as Trogdon (2013) does, is far too narrow. Continuing to use the term "well-founded" when a set-theoretic notion is not in mind is therefore misleading. I don't find the specious appearance of exactitude by using mathematical terminology a good reason to follow this trend.

chain of beings (cf. Leibniz, AG, 36-37), or eternal and uncaused beings (cf. AG, 149), one who accepts the PSR can still ask, with Leibniz, why are there any beings at all. The PSR helps us get to the bottom of things—to the ultimate ground—one way or another.

But, in fact, contemporary metaphysical foundationalists seem to take no cue from the PSR. This isn't as odd as it may at first seem, considering the customary way of defining fundamentality in terms of ground, ground being the relevant explanatory ontological dependence relation commonly likened to metaphysical explanation. According to standard usage, something is fundamental just in case it is *not* grounded. Schaffer is typical:

> [T]he key notions of *a fundamental entity* (a prior, primary, independent, ground entity) and *derivative entity* (a posterior, secondary, dependent, grounded entity) can both be defined in terms of grounding (ontological dependence, priority in nature), as follows:
>
> *Fundamental*: *x* is fundamental $=_{df}$ nothing grounds *x*.
>
> Further:
>
> *Derivative*: *x* is derivative $=_{df}$ something grounds *x*.[34]

[34] Schaffer (2009), p. 373. See also Clark and Liggins (2012), Trogdon (2013), Bliss (2011), and Bliss and Priest (2018). To their credit, the latter are careful to parenthetically note the relevant exception: "We assume that the categories of fundamental and derivative are exclusive and exhaustive. Some entity is either fundamental or derivative but never both. The category of derivative things is just the category of metaphysically dependent things; which is just to say it is the category of grounded and ontologically dependent entities. It is true by definition that a derivative entity is dependent and, thus, that it has a metaphysical explanation. The fundamentalia, on the other hand, by definition, depend on nothing else (except perhaps themselves) and are, thus, without metaphysical explanation (except perhaps in terms of themselves)." (p. 6).

And in his *Stanford Encyclopedia of Philosophy* entry on "fundamentality," Tuomas Tahko writes:

> The notion of fundamentality, as it is used in metaphysics, aims to capture the idea that there is something basic or primitive in the world. This metaphysical notion is related to the vernacular use of "fundamental", but philosophers have also put forward various technical definitions of the notion. Among the most influential of these is the definition of *absolute fundamentality* in terms of *ontological independence* or *ungroundedness*. … On the grounding-based characterization of fundamentality, the fundamentalia are *ungrounded* entities: everything is either ungrounded or ultimately grounded in the fundamental, ungrounded entities.[35]

The implication is clear: if whatever is fundamental is ungrounded, then whatever is fundamental would also be brute, lacking explanation. So Rosen, Audi, and Dasgupta, respectively:

> Say that a fact is fundamental (or brute) if it does not obtain in virtue of other facts, and that a *thing* is fundamental if it is a constituent of a fundamental fact.[36]

> If a fact has no ground, then it is fundamental in one perfectly good sense: there is no explanation of why it obtains (at the very least, no explanation in terms of ground).[37]

[35] Tahko (2018).

[36] Rosen (2010), p. 112. The relevant implication, I take it, is that if a fact does not obtain in virtue of other facts (as presumably all other facts do), it obtains in virtue of nothing else, and so is brute. If Rosen thinks a fundamental fact obtains in virtue of its constituents, would it not be a fact that a fundamental fact obtains in virtue of its constituents, and so itself be a fact that obtains in virtue of another fact?

[37] Audi (2012a), p. 710.

> There are those facts that are apt for having a ground but lack one. These are the so-called "fundamental" or "brute" facts. And there are those that are apt for having a ground and have one. These are the so-called "derivative" facts.[38]

Hence, as Ricki Bliss observes, "A pervasive view amongst metaphysicians is that there is a fundamental level populated by brute, independent fundamentalia: they are ungrounded and without explanation."[39] So it is not just that metaphysical foundationalists find no need of the PSR; the prevailing conception of fundamentality is flatly incompatible with it. As Correia and Schnieder write in the preface to their volume on metaphysical grounding, "the PSR in effect denies that there are fundamental facts, i.e., facts that are not grounded by anything else."[40] Similarly, in the introduction to their volume on the nature of fundamentality, Bliss and Graham Priest note

> [T]here is what we believe to be a considerable concern with the use of cosmological questions to motivate metaphysical foundationalism: they appear to rely on an application of the principle of sufficient reason (PSR). Although there may be a suitably constrained version of the principle in the vicinity, the employment of the full-blown principle-according to which *every thing* has an explanation for its existence-to motivate foundationalism would be a disaster for the view: exactly what the foundationalist believes is that not everything has an explanation. Metaphysical foundationalism, so motivated, runs the risk of pulling the rug out from beneath itself.[41]

Leibniz and other metaphysical rationalists would no doubt be surprised to learn that the PSR is incompatible with there being something fundamental! The PSR is their chief

[38] Dasgupta (2016), p. 385.

[39] Bliss (2018), p. 81.

[40] Correia and Schnieder (2012), p. 5.

[41] Bliss and Priest (2018), p. 20.

guarantor of that. Without it, what reasons are there for being a metaphysical foundationalist? The rejection of viciously circular chains of dependence remains straightforward enough, but without the PSR, the rejection of infinite chains of dependence is seriously attenuated. Metaphysical foundationalism seems to be a widely held view, yet I don't see an upsurge among philosophers endorsing scholastic arguments against infinite regresses.

After analyzing and rejecting traditional arguments for the "far-reaching intuition" that something fundamental is needed to ground descending chains of dependence, or otherwise "nothing has a metaphysical explanation," Ross Cameron confesses:

> It is proving hard to argue for the intuition. Of course, it is an intuition; is not that reason enough to believe it? Yes, it is; I certainly feel the force of the intuition strongly and I think that this alone, given that I have seen no argument against the intuition, is sufficient to give me a reason to believe that intuition is true. We have to rest on intuition at some point, after all; is not here as good a place as any? Why should we even be trying to offer an argument for it?[42]

In the end Cameron opts for an appeal to theoretical utility to justify the intuition; that is, rather than settle for many, separate explanations for each and every individual phenomenon (e.g., where each thing is the explanation of the one posterior to it), a "unified explanation" of the phenomena generally (every being) is preferable. And a fundamental ground of being gives us just that.

Cameron's suggestion is welcome, as far as it goes. But it doesn't go very far, and I don't find his critiques of, e.g., Leibniz's PSR-based argument for the intuition

[42] Cameron (2008), p. 11.

compelling. Cameron makes a typical gesture to Hume's objection that if each individual in a series has an explanation, then the whole series is thereby explained. Not only are there decisive counterexamples to this (explanation is not agglomerative in the way Hume's objection assumes[43]), the important point in the present context is just that without the PSR, the metaphysical foundationalist's rejection of infinite chains of ontological dependence is rather flaccid. The metaphysical foundationalist would do well to be a metaphysical rationalist, too. The problem, however, is that unless there is an alternative way of understanding fundamentality that doesn't run afoul of the PSR, one cannot be both—a *rational foundationalist*, if you will.

1.4. Preview of Aims

To recap: A metaphysical rationalist is one who accepts some version of the PSR. As discussed in the beginning of this chapter, the relevant PSR is that every thing that exists has an explanation of its existence. Historically, those who accepted the PSR used it to argue for the existence of a fundamental being, making them metaphysical foundationalists: those who reject viciously circular and regressive chains of ontological dependence, believing instead that chains of ontological dependence trace back to the existence of something fundamental. The problem is that contemporary metaphysical foundationalists spurn the PSR by defining fundamentality in terms of ground, where to be fundamental is to be ungrounded, and to be ungrounded is to be brute and inexplicable.

[43] See Rowe (1975), pp. 151-167; Gale (1991), pp. 250-258; Pruss (2006), pp. 41-46. For more on Hume's objection, see §5.2.

But denying the PSR takes the teeth out of arguments for metaphysical foundationalism; in particular, without the PSR, metaphysical foundationalists have very weak grounds for rejecting regresses of being ordered *per se*, because such regresses exhibit explanatory failure. The much stronger position would therefore be to be both a metaphysical rationalist and a metaphysical foundationalist—a rational foundationalist—just as Leibniz and others were.

The heart of any proposal for how one might be a rational foundationalist will be how a fundamental being itself gets explained, the PSR admitting of no exceptions. In the next chapter I will briefly survey a handful of such proposals made by prominent philosophers who count as rational foundationalists, as I'm using the term. I don't think their accounts are ultimately successful. There is, however, much to be learned from them. I detail the most important lessons in chapter 3 as a prelude to my own proposal in chapter 4. Finally in chapter 5 I summarize the main steps of the overall view and situate it within the context of cosmological arguments, and close with some considerations of its theological implications, should we choose to identify what is ontologically fundamental with God.

CHAPTER 2

PRECEDENTS

> The history of philosophy exhibits man's search for Truth by the way of discursive reason. At any rate we may say the search for truth is ultimately the search for Absolute Truth, God, …for the ultimate Ground, the supremely Real.
>
> Frederick Copleston (1946, 6)

So Frederick Copleston opens his magisterial nine-volume history of philosophy, which begins, as most histories of philosophy do, with the pre-Socratics' theories of *Urstoff*—the most primitive, fundamental element or substance. And we find in several of them—Anaximander, Parmenides, Archimedes—implicit use of the PSR.[44] Thus the basic ingredients of rational foundationalism are as old as philosophy itself. But the mature precedents of rational foundationalism began with those who explicitly wielded the PSR on behalf of metaphysical foundationalism. I will look at five such precedents—Anselm, Aquinas, Descartes, Spinoza, and Leibniz—and how they proposed that a fundamental being, like everything else, has an explanation.

2.1. Anselm (1033-1109)

[44] See Melamed (2016).

Having argued in the first chapters of the *Monologium* that "there is a being which is best, and greatest, and highest of all existing beings," (M, I, 83) Anselm argues next that "there is a certain Nature through which whatever is exists and which exists through itself, and is the highest of all existing beings" (M, III, 87). Although his argument for this latter conclusion is predicated upon considerations about ontological dependence, it should not be confused with his more widely celebrated ontological argument in the *Proslogium*. Here we see Anselm arguing not for a being which exists necessarily, but one that exists "through itself," using terminology that would later become standard expressions of the divine attribute of aseity. A being exists *a se* when it exists of or by or from or through itself, as opposed to beings which exist *ab alio*, or of or by or from or through another. Such prepositional vertigo can be avoided in English transliterations of the Latin "*a se*" (or sometimes "*existendi per se*") by speaking instead of a being that is "self-existent" or "ontologically self-sufficient."

Anselm begins with what looks like a version of the PSR, namely, that whatever exists "exists through" something: "For, everything that is, exists either through something, or through nothing. But nothing exists through nothing. For it is altogether inconceivable that anything should not exist by virtue of something. Whatever is, then, does not exist except through something" (M, III, 87).[45] Obviously Anselm does not mean that it is inconceivable that anything should not exist without a cause, for he believes there is at least one being that exists without a cause (namely, God). It seems equally obvious that for something to exist "through" something else is for it to have its *reason for being* in something else. The reason for a thing's existence is found in what it

[45] For defense that this is a version of the PSR like that discussed above, see Smith (2014), ch. 7.

"exists through". It is inconceivable that something should exist through nothing, or, in other words, lack a reason for its being.

Anselm gives several arguments for the conclusion that some one thing exists through itself as opposed to through another. One of his arguments is that existence through another is not the highest and most supreme form of existence, but because there is a highest and most supreme being, it must not exist through another. What interests us is not his arguments, however, but how Anselm conceives of "existence through itself." Toward that end, we should consider first what Anselm means by "existence through" more generally. He writes:

> But it is clear that one may say, that what derives existence from something exists through the same thing; and what exists through something also derives existence from it. For instance, what derives existence from matter, and exists through the artificer, may also be said exist through matter, and to derive existence from the artificer, since it exists through both. That is, it is endowed existence through both, although it exists through matter and from the artificer in another sense than that in which it exists through, and from, the artificer. (M, V, 91)

From this two things are clear. First, it is clear that by one thing "existing through" another, as a statue does, Anselm means that the one thing ontologically depends, that is, depends for its existence on the other. The statue depends for its existence on the matter. Second, it is equally clear that Anselm thinks there are different senses of ontological dependence: the statue ontologically depends on its matter in one sense, and depends on its artificer in another. Anselm goes on to distinguish other senses, redolent of Aristotle's four causes, to further explain what it means for something to exist "through itself":

> Since the same meaning is not always attached through the phrase, "existence through" something, or, to the phrase, "existence derived from" something, very diligent inquiry must be made, in what way all existing beings exist through the supreme Nature, or derive existence from it. For what exists through itself, and what exists through another, do not admit the same ground of existence. … For, what is said to exist through anything apparently exists through an efficient agent, or through matter, or through some external aid, as through some instrument. But whatever exists in any of these three ways exists through another than itself, and it is of later existence, and, in some sort, less than that through which it obtains existence. (M, VI, 92)

For something to *not* exist "through itself" is for it to ontologically depend on, and so be "of later existence" than another as an efficient cause, material cause, or "external aid, as through an instrument." Furthermore, Anselm explicitly denies that something's existing through itself is to be understood in terms of causing itself, efficiently, materially or otherwise. "The supreme Substance," he says "did not create itself, nor did it spring up as its own matter, nor did it in any way assist itself to become what is was not before" (M, VI, 94-95). For something to exist through itself, therefore, is not for it to bootstrap itself into existence.

Having explained what it does not mean for something to exist through itself, Anselm offers the following positive proposal to elucidate what is does mean:

> As to how it should be understood to exist through itself, and to derive existence from itself: … it seems best to conceive of this subject in the way in which one says that *the light lights* or is *lucent*, through and from itself. For, as are the mutual relations of *the light* and *to light* and *lucent* (*lux*, *lucere*, *lucens*), such are the relations of *essence*, and *to be* and *being*, that is, *existing* or *subsisting*. So the supreme *Being*, and *to be* in the highest degree, and *being* in the highest degree, bear much the same relations, one to another, as *the light* and *to light* and *lucent*. (M, VI, 95)

One wishes Anselm would have spent as much time explaining what existing through itself amounts to as he did what it doesn't, but alas, this single paragraph, which is as fascinating as it is puzzling, is all we get. What are we to make of this?

As per the analogy, it is the nature of a light (noun) to be, when lit (verb), luminous (adjective). Light is what is does when it's doing it, so to speak, and in that sense exists through itself. But it's hard to see how the analogy applies to the supreme Substance. What would it mean to say that it is of the essence[46] of the supreme Substance (noun) to be/exist, when it is being/existing (verb), being-y/existence-y (adjective)? Surely it would take Anselm's analogy too far to read into these verb and adjective forms of "Being" as having ontological significance akin to an *actus purus* ontology of the divine nature. Nor should we think that Anselm is *identifying* God's essence with God's existence. Both of these developments would come later, chiefly with Aquinas. It is of course true that Anselm thinks it is of the essence of God to exist. That much he thought was demonstrable from his ontological argument. But light is not, after all, identical to luminosity, at least as Anselm must have thought of it: for luminosity is just how bright a light appears to us.[47] Indeed, he says, at least with respect to the supreme Substance, that essence, existence, and existing "bear much the same relations" to one another as do light, being lit, and luminosity, as if each is distinct, not identical. How can there be a relation between anything if the relata are not distinct?

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[46] Anselm uses "essence" and "nature" interchangeably. See M, IV, 90.

[47] Anselm obviously would not have understood luminosity in the modern physics sense of total amount of energy emitted by an object per some unit of time.

Interestingly, Anselm calls these *mutual* relations, the idea perhaps being that essence, existence, and existing all stand in the same relation to each other. Some caution is needed here, however, because earlier Anselm explicitly rejects the possibility that beings which exist through something could exist mutually through each other: "But that these beings exist mutually through one another, no reason can admit; since it is an irrational conception that anything should exist through a being on which it confers existence. For not even things of a relative nature exist thus mutually, the one through the other" (M, III, 88). This seems to be a straightforward rejection of chicken dependence, or viciously circular ontological dependence between two or more things. Thus Anselm rejects both bootstrapping and chicken-or-egg scenarios.

Perhaps what Anselm is rejecting is chicken dependence between two or more *separate* things in particular. This is suggested by his example that follows: "For, though the terms *master* and *servant* are used with mutual reference, and the men thus designated are mentioned as having mutual relations, yet they do not at all exist mutually, the one through the other, since these relations exist through the subjects to which they are related" (M, III, 88). Don't be fooled, he says, into thinking that *the men* whose roles are master and servant, respectively, exist through one another just because you can't have one whose *role* is master without another whose *role* is servant and vice versa. The men themselves are separate things. This is not so with respect to light, lit, and luminosity, or essence, existence, and existing, which are not separate things in the same sense that two men are.

Be that as it may, I see no clear sense in which light is distinct, even if not separable, from its being lit in a way that's analogous to how a thing like a man would be distinct,

even if not separable, from his being-while-acting. So-called "*qua*-objects"—or Aristotelian compounds like seated-Socrates—do not help, not least because such objects asymmetrically depend on their bases. Seated-Socrates depends on the concrete man, Socrates, so long as he is in the seated position, whereas Socrates the man nowise depends on seated-Socrates. Nevertheless, Anselm evidently thought there was some kind of mutual or symmetric relation at work. But there does not even seem to be true mutual relations in the light example, for light is itself caused to exist; i.e., it exists through something prior to it. Light, as a substance, does not consist merely of being lit or being luminous. Those are properties light has prior or posterior to being. There does not seem to be any mutual "existing through" relation here at all.

In the end, it's hard to say just what Anselm's proposal amounts to. After his own analysis of Anselm's proposal, John Morreall thinks it amounts to no more than a grammatical confusion:

> The only sense in which light seems to be *per se* is a grammatical sense. Unlike a substance such as a horse, which performs activities which are referred to by using verbs and adjectives predicated of the noun "Horse", light is itself an activity and so can be referred to by either the noun *light*, or the verb *to shine*, or the verbal adjective *shining*. With light there is not some thing and also the activity it performs, as there is, say, with a horse and the horse's running. The noun *light* refers to the same thing as *to shine* and *the shining* (*thing*) do. In this sense we can say that 'all by itself' or *per se*, if you will, light shines or is something shining.[48]

That "light" can be used a both a noun ("the light in the cave") and verb ("I light the cave") is an artifact of language, not the metaphysics of light as some kind of dynamic

[48] Morreall (1984), p. 39.

substance whose being is what it does. Without the additional metaphysical resources to interpret being as act, as Aquinas found in Aristotle, Anselm's analogy of how light exists "through itself" by at once *being called what it does* fails to illuminate how the supreme Being exists through itself. Anselm, then, while unmistakably being a rational foundationalist, offers little by way of understanding *how* one might be a rational foundationalist.

2.2. Aquinas (1225-1274)

It is difficult to know where to begin with Aquinas, whose metaphysical system is detailed across such a large corpus of works that not even many die-hard Thomists have traversed it. And those who have differ as to the conceptual heart of it all. Some argue it is the act-potency distinction, according to which all being save God (who is pure act) consists of potentiality undergoing actualization. Others argue it is the essence-existence distinction, according to which all being save God (whose essence *is* existence) consists of an essence distinct from its act of existing. Thankfully, we do not need to dive too deeply into these waters to consider those elements of his thought that may be seen as a precedent of rational foundationalism. We need look not much further than the first three of his celebrated "Five Ways" of demonstrating the existence of God, which are metaphysical foundationalist-style arguments with a strong metaphysical rationalist flavor.

The First Way is an Aristotelian proof for the existence of an unmoved mover, the Second is for the existence of a first uncaused cause, and the Third for the existence of a

certain kind of necessary being (what kind we will see due course). That these are foundationalist-style arguments is clear: First, each takes as its cue beings, or facts about beings, which Aquinas thinks call out for explanation: beings which change, beings which are caused to exist, and beings which are contingent, respectively.[49] Further, that which about them generates a demand for explanation is, in each case, a kind of dependence, "existential dependence" in particular. As Copleston observes, "All the arguments, indeed, treat of dependence in some form or other. And I think that this idea will be found to be involved in all arguments or the existence of God which are in any real sense a posteriori."[50] And this is to be expected, given that Aquinas seems to accept a form of the PSR very similar to the one discussed in chapter 1. As Aquinas puts it, "everything whose being is distinct from its nature must have being from another" (OBE IV.7)—that is, be caused. And everything whose being is distinct from its nature, Aquinas argues, is everything except God. Everything that exists except God, then, has its being "from another," which is to be explained by or have its reason for existing in something else as its cause. Something whose being is not distinct from its nature, as implied by contrast, will have its reason for existing in itself. Thus in his masterful, wide-

[49] It may be objected that the First Ways should not count as a metaphysical foundationalist-style argument on the grounds that its *explanandum* is change, not beings which change. This is the well-trodden interpretive controversy of whether Aquinas' *prima via* is intended to be a physical proof (taking as its *explanandum* physical change, or motion) or a metaphysical proof (taking as its *explanandum* beings which change). I think the latter interpretation is preferable. Motion or change, for Aquinas, occurs whenever potentiality gets actualized. Everything that exists, with the exception of the unmoved mover, is composed of potency and act. So to explain motion is to explain what exists. Feser (2009) puts it nicely: "[I]f motion is just the reduction of potency to act, then the existence of a thing no less than its activity involves (in everything other than that which is pure act) the reduction of potency to act, any explanation of motion must account for the existence of things and not just their activities," (p. 76) so "by saying that there must be a first mover, he does mean first in the order of time, but rather first in the sense of being most fundamental in the order of what exists." (p. 69). For a defense of the former interpretation, see Craig (1980), pp. 164ff.

[50] Copleston (1955), pp. 127-128.

ranging study of Aquinas, Norman Kretzmann finds in Aquinas the following PSR: every existing thing has a reason for its existence either in the necessity of its own nature or in the causal efficacy of some other being(s).[51] And with this Aquinas leads us by argument from the existence of beings whose existence needs explaining to a being that is explanatorily self-sufficient.

The PSR is, arguably, equally at work in the first three Ways, but is most evident in the lattermost. For this reason it is the Third Way, as Copleston and others have contended, that seems to assume philosophical primacy among Aquinas's proofs, despite the fact that Aquinas himself devotes by far the most attention to the First. Copleston:

> The fundamental proof is really the third proof or 'way', that from contingency. In the first proof the argument form contingency is applied to the special fact of motion or change, in the second proof to the order of causality or causal production, in the fourth proof to degrees of perfection and in the fifth proof to finality. … The argument from contingency itself is based on the fact that everything must have its sufficient reason, the reason why it exists. Change or motion must have its sufficient reason in an unmoved mover, the series of secondary causes and effects in an uncaused cause, limited perfection in absolute perfection, and finality and order in nature in an Intelligence or Designer.[52]

Each of the first three Ways, furthermore, arrives at the existence of a fundamental being that functions as an explanatory ultimate, or, as Aquinas prefers, "that which everyone calls God," by rejecting bootstrapping and turtles-all-the-way-down scenarios (as far as I'm aware, he does not directly consider chicken-or-egg scenarios). Where "cause" should again be understood broadly as that which helps explain a thing's existence (be it

[51] Kretzmann (1999), pp. 65-66.

[52] Copleston (1950), p. 345-346.

material, efficient, formal, or final), Aquinas says it is impossible that something could be the cause of its own being, for in such a case "the existence of the cause is prior to that of the effect. If, then, something were its own cause of being, it would be understood to be before it had being—which is impossible" (SCG I.22.6). When it comes to rejecting turtles-all-the-way down, "It is not the possibility of an infinite series as such which St. Thomas denies," Copleston reminds us, "but the possibility of an infinite series in the ontological order of dependence. In other words, he denies that the movement and contingency of the experienced world can be without any ultimate and adequate ontological explanation."[53] A bit more perspicuously, Aquinas, like most scholastics and modernists, does not reject infinite regresses *tout court*; he rejects only infinite regresses that are ordered *per se* (i.e., non-temporal "vertical" dependence) as opposed to regresses ordered *per accidens* (temporal "horizontal" dependence), because the former regresses exhibit explanatory failure (SCG I.13) in the way described in §1.2.2.

The question is not whether these arguments are sound.[54] The question, given the PSR, is how Aquinas thinks God—the fundamental being—gets explained. The Third Way, recall, arrives at the existence of a certain kind of necessary being (ST I.2.3). But God, according to Aquinas, is not just any kind of necessary being, but, as implied by the PSR Kretzmann attributes to Aquinas, one that exists *by the necessity of his own nature*. This is because an infinite regress of necessary beings, each depending on each other, would be just as problematic as a regress of contingent beings (OBE IV.7; ST I.2.3). There therefore must be something "having of itself its own necessity, and not receiving

[53] Ibid., p. 342.

[54] Although they are better than most seem people give them credit for. See MacDonald (1991a), Feser (2009), Kerr (2015), and Arp (2016).

it from another, but rather causing in others their necessity" (ST I.2.3). Aquinas also is not shy in using language more reminiscent of Anselm's, as he does when he describes an explanatorily self-sufficient being as one that is "*through itself* a necessary being" (SCG I.22.2).

Once again we are confronted with what it means for something to be "through itself" a necessary being, what it means to exist "by the necessity of its own nature." This time, however, we get some aid from the Aristotelian concepts Aquinas adopts. For a thing to be caused to exist is for it to have its existence (matter, in most cases) conjoined to an essence (form).[55] For a thing to undergo change or movement is for some potentiality in that thing (inherent in its form or essence) to be actualized. For a thing to be contingent is for it to be a matter-form composite, for its matter and form might never have been conjoined. Thus what the first three of Aquinas' Five Ways take as their *explananda* are things whose essence is distinct from their existence. All things whose essence and existence are distinct are ontologically dependent entities whose existence is explained by prior existents (SCG I.22.2).

Given this metaphysical framework, each of the arguments converge in their own way on a being (unmoved mover, uncaused cause, and necessary *per se*) whose essence is not distinct from its existence. What Aquinas means by a being that exists by the necessity of its own nature, then, is a being whose essence is its own unique act of existing (*ipsum esse subsistens*). Unlike everything else which finds its explanation in another, God *is* His own existence, and so has His explanation "in Himself".

[55] And, furthermore, to have that conjunction conserved in being at every time at which the thing is. Beings whose necessity is caused by another have form but not matter, and are still such that their existence is distinct from their essence.

It may be questioned, however, whether the concept of a being whose essence is identical to its existence is coherent (hereafter I will refer to this as the 'E = ∃ thesis'). As Aquinas says, such a being does not exist like anything else, but rather is existence itself (SCG I.22; I.38.5).[56] This is remarkable in its oddity. As Christopher Hughes puts it, supposing that God could be pure subsistent existence is like "supposing that something could be a shape, without being the shape of anything but that shape, or be a shadow, without being the shadow of anything but that shadow."[57] Just as I know what it means for things to have a shape or shadow, I know what it means for things like rocks, trees, and people to have existence, even if I don't know what the best philosophical analysis of "existence" is. I know what ordinary existence claims mean well enough to offer and analyze claims about the existence of more peculiar things like numbers or subatomic particles or angles and demons. But on Aquinas' view, God "exists" in some radically different sense—so radically different that I don't know what "God exists" means. And how would one argue for "God's existence" if God doesn't have existence like other things do? Surely the Five Ways are meant to demonstrate that something *in particular* exists ("*et hocomnes intelligunt Deum*"), not just that "there is" existence *simpliciter*,[58] or that some thing* exists*, the asterisks signifying reference to we know not what.

[56] Aquinas closes his arguments for the E = ∃ thesis in SCG I.22 by approvingly quoting Boethius' statement that "the divine substance is being itself, and from it comes being", and later (SCG I.38.5) says "that which is can participate in something, but the act of being can participate in nothing. For that which participates is in potency, and being in an act. But God is being itself, as we have proved."

[57] Hughes (1989), p. 21.

[58] The scare quotes because, again, to say "there is existence *simpliciter*", apart from some non-existentially committing reading of "there is," is just to say existence *simpliciter* exists. But existence *simpliciter* is not something that *has* existence.

The conceptual difficulties continue. Aquinas thinks there is a real distinction between essence and existence in creatures. There is something we can refer to as a creature's essence, E, and something else we can refer to as a creature's existence, ∃. Assuming the standard view of identity, for any creature, $\Box(E \neq \exists)$. When it comes to God, however, $\Box(E = \exists)$.[59] But if the meaning of '=' in both cases is the same, the meaning of 'E' and '∃' cannot be, since $\Box(E \neq \exists)$ is logically equivalent to $\sim\Diamond(E = \exists)$. What is meant by 'E' and '∃' when speaking about creatures, and when speaking about God, cannot be the same.[60] So the E = ∃ thesis is really an E* = ∃* thesis, the asterisks again signifying reference to we know not what. Alternatively, one might hold that 'E' and '∃' are univocal, it's just that they can be identical in some cases (God's) but not others (creatures). In this case, the E = ∃ thesis is really an E =* ∃ thesis, '=*' signifying reference to a nonstandard view of identity. Either way, the thesis is about as clear as mud.

Wholly apart from these conceptual difficulties, it is unclear how the E = ∃ thesis is explanatory. It is widely agreed that mere identity, as a reflexive relation, is not an explanatory relation. "If anything has appeared obvious about explanation," Robert

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[59] Since it is provable from the necessity of identity, $(\forall x)\Box(x = x)$, and a substitution instance of the substitutivity of identity, $(\forall x)(\forall y)(x = y) \supset [\Box(x = x) \supset \Box(y = y)]$, that $(\forall x)(\forall y)((x = y) \supset \Box(x = y))$. See Kripke (1971). This is just how identity works, unless Aquinas is prepared to embrace contingent, relative, or some other kind of identity weaker than Leibnizian/Kripkean identity.

[60] I understand that this is where the doctrines of analogical predication and non-univocity of being come in to play: true, when it is said that God's essence is identical to His existence, we don't mean "essence" and "existence" in the same sense in which these are understood in created things; there is some analogical sense of these terms that apply to God, who is not one being among other beings, but is *sui generis*. But it seems to me that for any statement of the form "*x* is analogous to *y*" to be meaningful, *x* and *y* must have something in common, or be similar in some respect, *R*. Otherwise, one would be forced to say that *x* and *y* can be analogous yet have absolutely nothing in common, which is absurd. Further, it is but a short step from these doctrines to a kind of divine ineffability that destroys meaningful discourse about God entirely, including discourse concerning God's very existence, as employed in the Five Ways.

Nozick writes, "it has been that the explanatory relation is irreflexive."[61] This of course is a well-known problem facing reductive accounts of mental states in philosophy of mind, but it faces the E = ∃ thesis no less. Given the Aristotelian framework Aquinas adopts, it is clear how the existence of other things are explained: as matter-form composites, their existence is explained in part by their form and matter (internal causes), and in part by what conjoins them (external causes); i.e., causes them to exist, "cause" understood broadly to include not just efficient causes, but final causes as well.[62] But when it comes to a being whose essence is existence, none of those explanatory elements are present.

In fact, Aquinas explicitly rejects the possibility that such a being—God—could depend on *anything*, as any form of dependence entails existing "through another," be it internal or external (SCG I.13.5-10; I.22). A being that truly exists through itself, Aquinas believed, must therefore be absolutely simple, altogether lacking parts (SCG I.18; I.20-27).[63] Now, it is not that it's hard to see how an absolutely simple being could have an explanation of its existence; rather, it is easy to see how it couldn't. Clearly there are no explanatory resources external to it that could help, since it exists independently of anything else. Just as clearly, there are no internal explanatory resources, since there are no real distinctions between anything in an absolutely simple being. There's just nothing in there for an explanatory relation to squeeze between. An independently existing, absolutely simple being just *is*, and is without explanation. It is for this reason that Brian Leftow argues that Aquinas should not be read as endorsing the PSR Krentzmann

[61] Nozick (1981), p. 181.

[62] See Gilson (1937), p. 80.

[63] According to a constituent ontology like Aquinas', a thing's "internal causes," i.e., form and matter, are considered parts of that thing.

attributes to him—that is, the PSR at the heart of the metaphysical foundationalist's program.[64] If indeed Aquinas thought God is an exception to the PSR, he is no rational foundationalist.

One might think that for Aquinas God's existence is self-explanatory in the same way that the truth of analytic propositions are sometimes said to be self-explanatory.[65] For example, the truth of the proposition "all bachelors are unmarred men" depends entirely on the meaning of the terms contained within the proposition itself. Once you understand the meaning of the terms, you can just "see" that the proposition is true. It is, in that sense, self-explanatory. Might Aquinas think something similar with respect to God? Aquinas did seem to think the proposition "God exists" is analytic precisely because his essence is identical to his existence. He writes:

> [t]hose propositions ought to be the most evident in which the same thing is predicated of itself, for example, *man is man*, or whose predicates are included in the definition of their subjects, for example, *man is an animal*. Now, in God, … it is pre-eminently the case that His being is His essence, so that to the question *what is He?* and to the question *is He?* the answer is one and the same. Thus, in the proposition *God exists*, the predicate is consequently either identical with the subject or at least included in the definition of the subject. (SCG I.10.4) … For just as it is evident to us that a whole is greater than a part of itself, so to those seeing the divine essence in itself it is supremely self-evident that God exists because His essence is His being. (SCG I.11.5)

[64] See Leftow (2003). Leftow sees the problem as reason to not interpret Aquinas as committed to the PSR. I'm inclined to see it as a problem for Aquinas' view: simplicity, in particular.

[65] As Scott MacDonald suggested to me in conversation. The analyticity of the proposition is beside the point, however, as there are plenty of analytic propositions whose truth is not self-evident. E.g., "3344 x 23442 = 78390048." Perhaps Kantians would find "Hesperus is phosphorus" to be a better example.

But interpreting Aquinas here as offering an account of how God's *existence* is self-explanatory confuses something's being self-evident with its being self-explanatory, and these are by no means the coextensive, much less synonymous. Aquinas is clearly describing how *the proposition* "God exists" is self-evident, not how *God's being* is self-explanatory. Even if Aquinas were correct that the predicate "exists" is either identical to or included in the definition of the subject "God" on account of God's existence being identical to His essence, that says nothing about how *God's existence itself* gets explained. As Leftow puts it,

> [f]or Thomas, God's having His nature makes His having His existence self-evident (*per se notum*) to those who grasp God's nature, i.e. 'see' the divine essence. But it is not self-evident to these lucky souls *why* God exists. What is self-evident is just *that* He exists. For Thomas, 'God exists by nature' is just a way to say that God's nature = God's existence."[66]

But it is an explanation for *why* God exists that the rational foundationalist wants. The E = ∃ thesis is of no help here, even if it entails that the proposition "God exists" is self-evident. We do not find in Aquinas, therefore, a workable proposal for how to be a rational foundationalist.[67]

2.3. Interlude

[66] Leftow (2003), p. 284.

[67] No doubt my treatment of Aquinas will be judged inadequate if not downright barbaric to committed Thomists. They will find no more solace in my own proposal of what a fundamental being must be like in chapter 4, so I will not begrudge them their disappointment.

The near 400-year leap from Aquinas to Descartes may seem suspicious, as it mutes such luminaries as John Duns Scotus (1266-1308), William of Ockham (1287-1347) and Francisco Suarez (1548-1617). But among these only Scotus has something for our topic. Although he does depart from Aquinas on aspects of his thought we found difficult (e.g., the univocity of being), his departure is not so radical as to render his account of rational foundationalism substantively different. Scotus' own meticulously-detailed cosmological argument follows the basic form of a foundationalist-style argument of arriving at the existence of a fundamental being by rejecting the possibility of bootstrapping, chicken-and-egg, and turtles-all-the-way-down scenarios.[68] Further, he continued to describe such a being in the now familiar terms of existing necessarily through or of itself.

Unfortunately, Scotus' gloss on what this means—i.e., *uncausable*—is of no help to the rational foundationalist. Enjoining us to keep in mind certain of Scotus' modal presuppositions here, Richard Cross explains:

> Possibility is tied to causal powers, and if something is possible, then whatever the relevant causal explanation, that explanation must be *real* (if it were not real, the *explanadum* would not be possible: its very possibility is tied to the existence of a real explanation). Any first efficient cause [i.e., fundamental being] is really possible, and its explanation is intrinsic to itself. Some such efficient cause must, then, be real, else, as Scotus has it, "non-being would produce something in being, which is impossible; and furthermore the thing would then cause itself, and thus would not be entirely uncausable."[69]

Applying the foregoing to what it means to exist "necessarily of itself," Cross writes:

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[68] Good discussion is Cross (2005), pp. 30-48.

[69] Ibid., p. 35.

> [S]omething that has necessary existence of itself is such that all causal conditions are intrinsic, and all necessarily satisfied: since nothing causes itself, the satisfaction of such intrinsic causal conditions really amounts to there being no extrinsic condition necessary for its existence …"[70]

It would seem, then, that the intrinsic causal conditions (of God's existence) are trivially satisfied just in virtue of the fact that there necessarily are no external causal conditions of God's existence, and that for God to have such internal causal conditions satisfied is tantamount to his simply being strictly uncaused. It is thus misleading to say, as Cross does, that Scotus thinks God's existence has an explanation at all, even one "intrinsic to itself."[71] Only things that are possibly causable require explanation. God, being necessarily uncausable, is exempt from that requirement, *contra* the rational foundationalist.

2.4. Descartes (1596-1650)

Descartes is certainly a rational foundationalist, but does not advance the typical foundationalist-style arguments of others we've looked at; at least not directly. He advances two arguments for the existence of a fundamental being in the *Meditations*, a

[70] Ibid., p. 43.

[71] In personal communication, Cross clarified that "I think today I'd not put the matter quite as I did then, since it has the whiff of incoherence about it. … I don't think the medieval thinkers would think of there being an 'explanation' for God's existence."

cosmological argument in *Meditation III* and an ontological argument in *Meditation V*.[72] The details of these arguments need not detain us, as, once again, we are not here concerned with their validity or soundness. What concerns us is his how he thinks the fundamental being gets explained.

In the cosmological argument of *Meditation III*, Descartes is interested in the "explanatory ground," as Andrea Christofidou puts it, of his idea of God rather than, say, contingent beings. The main structure of his argument for God is foundationalist in spirit, where chains of explanatory dependence bottom out in something fundamental and independent, or in "a thing which exists in such a way as to depend on no other thing for its existence" (HR I, 239).[73] The argument, in brief, is that his (i.e., Descartes') idea of God could not have come from himself, since (i) there must be at least as much reality in the cause as its effect, and (ii) what is more perfect cannot proceed from what is less perfect (HR I, 162; cf. HR I, 166). So his idea of God must trace back to God, otherwise a vicious regress ensues,[74] for if the being from whom the idea of God originates "derives its existence from some other cause than itself, we shall ask, for the same reason, whether this second cause exists by itself or through another, until from one step to another, we

[72] Perhaps due to Descartes casting the argument in *Meditation III* in terms of dependence ("On what does my idea of God ultimately depend?"), it is customary in the literature to refer to it as a cosmological argument. Its peculiarity, however, makes that categorization somewhat dubious.

[73] This is Descartes definition of "substance." Accordingly, God alone is a substance in this sense: "And in fact only one single substance can be understood which clearly needs nothing else, namely, God" (HR I, 239). Thus, Leibniz and Spinoza had a similar position. Christofidou's (2013) comments on this passage: "Substance is ontologically and explanatorily independent—it is supremely real or perfect, powerful and independent…: it is what is *in itself* and is conceived *through itself*. In this sense there can only be one true substance, namely, God" (p. 104).

[74] Descartes explicitly rejects the possibility of an infinite regress ordered *per se*. See HR II, 220.

finally arrive at an ultimate cause" (HR I, 169).[75] He is thus led to a being which "derives its origin from itself," and "possesses the virtue of self-existence" (HR I, 169). It is this conclusion, of course, that interests us. What else does Descartes say about the nature of this being?

Descartes says very little about this in the *Meditations*. Thankfully, we get much more to chew on in his replies to objections to the *Meditations*. The first of these comes from Caterus, a priest of Alkmaar, who immediately likens Descartes' argument for God to a foundationalist-style argument:

> This is an argument that pursues the same path as that taken by St Thomas, and which he calls the proof from 'the causality of an efficient cause.' It is derived from Aristotle. But Aristotle and St Thomas are not concerned with the causes of ideas. Perhaps they had no need to be, for might not the argument take a more direct and less devious course?—I think, hence, I exist; nay I am that very thinking mind, that thinking. But that mind, that thought, springs either from itself or from something else. On the latter alternative, from what does that something else come? If it is self-derived, it must be God? For that which is self-originated will have no trouble in conferring all things on itself. (HR II, 4)

Caterus goes on to press Descartes at length to answer just that question with which we are concerned, namely, what exactly does Descartes mean when he says God is self-originated (of itself, *a se*) or self-existent. Caterus helpfully distinguishes two possible meanings of aseity, a negative and positive. Most common, he says, is the negative meaning, where to say of a being that it exists *a se* just means that it is underived or uncaused. The positive meaning of aseity, by contrast, is for the being to be "derived

[75] See Secada (2000), pp. 157ff for argument that the sort of infinite regress Descartes rejects is one ordered *per se*. Secada's is the best treatment of Descartes' cosmological and ontological arguments I am aware of.

from its own self as from a cause" or to have "conferred its own existence on itself." Descartes had better mean the former, says Caterus, because it is impossible that a being exist *a se* in the latter sense. So which is it?

Descartes's reply leaves no doubt as to his rational foundationalist credentials, including a clear endorsement of a very strong PSR. He writes: "The light of nature certainly tells us that nothing exists about which the question, why it exists, cannot be asked, whether we enquire for its efficient cause, or, if it does not possess one, demand why it does not have one" (HR II, 14). Indeed, this is the first of his ten "axioms or common principles," and he makes clear that God is no exception: "For this question may be asked even concerning God" (HR II, 55). And when the question is asked of God, Descartes appears to endorse a positive meaning of aseity:

> But it seems to me self-evident that everything that exists springs either from a cause or from itself considered as a cause; for, since we understand not only what existence is, but also what negation of existence is, we cannot feign that anything exists *per se* as to which no reason can be given regarding why it exists rather than not exist; hence there is no reason for not interpreting self-originated in the sense in which it implies causal power, that power, to wit, which passes all bounds, and which, as we can easily prove, can be found in God alone. (HR II, 16-17)[76]

It seems that God, on this account, somehow preserves himself in existence by the operation of his own causal power. Otherwise, we'd have an unacceptable regress of

[76] This is hard to square with what he says after introducing the axiom, where he appears to endorse the negative sense of aseity. The full passage is: "Nothing exists concerning which the question may not be raised—'what is the cause of its existence?' For this question may be asked even concerning God. Not that He requires any cause in order to exist, but because in the very immensity of His being lies the cause or reason why He need no cause in order to exist" (HR II, 55). Perhaps Descartes is distinguishing cause from reason here, such that God's existence requires the latter but not the former? Or perhaps, more radically, Descartes thinks that while God *needs* no cause, God in fact does have one?

causes without a first member. So, Descartes says, “I frankly allow that something may exist in which there is such a great and inexhaustible power that it has needed no assistance in order to exist, and requires none for its preservation, and hence is in a way the cause of its own existence; such a case I understand to be God (HR II, 14). Causation here is not, however, “the peculiar and restricted meaning of efficient cause,” (HR II, 15) but is “another species of cause analogous to an efficient cause” (HR II, 15). The question now is, How is the causal concept here different from efficient causation, and how is it analogous?

It is different from efficient causation in two ways: the cause is not prior to its effect, and it is not distinct from its effect. Although “that statement is manifestly true when the meaning of efficient cause is restricted to those causes that are prior in time to their effects or different from them, yet it does not seem necessary to confine the term to this meaning in the present investigation” (HR II, 14)—i.e., investigation into what sense God is the cause of himself. But even in ordinary cases of efficient causation, Descartes says, the cause may not be temporally prior to its effect. He writes, “the light of nature does not require that the notion of an efficient cause should compel it to be prior to its effect; on the contrary, a thing does not properly conform to the notion of cause except during the time that it produces its effect, and hence is not prior to it” (HR II, 14), by which I take it he means efficient causes can be temporally simultaneous with their effects. Thus, God’s causing himself need not be understood as God’s somehow being prior to himself, temporal or otherwise, for, he rhetorically asks, “Who does not know that the same thing can neither be prior to nor different from itself?” (HR II, 14).

We have already seen in the above passages how Descartes thinks God's causing himself is analogous to efficient causation: insofar as efficient causes are conceived of having the power to conserve or preserve their effects in being, God exercises that power *in excelsis* with respect to himself. This, Descartes thinks, is the key to a positive conception of aseity demanded by the PSR. "When we say God exists *per se*," Descartes says, "we can indeed understand that negatively, our whole meaning being really that he has no cause" (HR II, 15). "But," he continues, which I quote at length:

> if we have previously enquired why He is or why He continues in being, and having regard to the immense and incomprehensible power which exists in the idea of Him we recognize that it is so exceedingly great that it is clearly the cause of His continuing to be, and that there can be nothing else besides it, we say that God exists *per se*, no longer negatively but in the highest positive sense. For, although we need not say that God is the efficient cause of His own self, lest, if we do so, we should be involved in a verbal dispute, yet, because we see that the fact of His existing *per se*, or having no cause other than Himself, issues, not from nothing, but from the real immensity of His power, it is quite permissible for us to think that in a certain sense He stands to Himself in the same way, as an efficient cause does to its effect, and that hence He exists *per se* in a positive sense. (HR II, 15-16)

He goes on, noting that we can arrive at a being which exists *per se* in a positive sense by reflecting on ourselves as dependent beings:

> Each one may also ask himself whether he exists per se in the same sense, and, having found no power in himself sufficient to preserve him through even a moment of time, he will rightly conclude that he depends on something else, and indeed on something else which exists *per se*, because since the matter here concerns the present, not the past or the future, there is no room for an infinite regress. Nay, here I will add a statement I have not hitherto made in writing—that we cannot arrive merely at a secondary cause, but that the cause which has

> power sufficient to conserve a thing external to it must with all the more reason conserve itself by its own proper power, and so exist *per se*. (HR II, 16)

This, then, is what Descartes gives us as an account of how to be a rational foundationalist. What can we make of it?

First, we should not interpret Descartes as saying God is his own efficient cause in any straightforward sense, as if God bootstraps himself into existence. One can understand how a superficial reading of Descartes would suggest as much, but we should take him at his word when he says he has in mind a species of cause analogous to but different from efficient causation. Further, and more to the point, Descartes explicitly denies a bootstrapping interpretation in his response to Arnauld, saying "I am aware also that nothing can give itself existence in that way which is implied by the meaning to which we restrict the term efficient cause, viz. in a way such that the same thing, in so far as it gives itself being, is different from itself in so far as it receives being; for to be the same thing and not the same thing, i.e. a different thing, is a contradiction" (HR II, 111). Descartes further specifies that God "does not conserve Himself by any transeunt[77] action, or any continual reproduction of Himself" (HR II, 108).

That being said, however, Descartes does go on to insist to Arnauld that there is a positive sense in which God can be said to be the cause of Himself:

> For those who follow the guidance of the light of nature alone, spontaneously form here a concept common to efficient and formal cause alike. Hence, when a thing is *derived from something else* it is derived from that as from an efficient cause; but what is *self-derived*

[77] Wuellner (1956), p. 125: "Transuent (transient, transitive), *adj*. proceeding from one being or cause to another being; imparted to another. ANT. – *immanent*."

> comes as it were from a formal cause; it results from having an essential nature which renders it independent of an efficient cause (HR II, 109) … Although we do not enquire for an efficient cause with respect to a thing's essence, nevertheless we can do so with regard to its existence; but in God essence and existence are not distinguished; hence we may enquire about the efficient cause of God. But in order to reconcile those two matters, we should reply to the question as to why God exists, not indeed by assigning an efficient cause in the proper sense, but only by giving the essence of the thing or formal cause, which, owing to the very fact that in God existence is not distinguished from essence, has a strong analogy with the efficient cause. (HR II, 113)

Having "pursued this topic at somewhat greater length than the subject demanded" (HR II, 114), with a detectable note of frustration, Descartes says no more.

Despite his claim that it is "self-evident" to those who follow the natural light of reason (HR II, 109), I am at a loss as to what Descartes' account of how God's existence is explained really amounts to.[78] He at first appears to say God is his own efficient cause, but later explicitly denies that. He affirms a positive sense of aseity in terms of God's unique power of self-preservation, but then later seems to deny that that amounts to anything beyond the negative sense of not depending on anything else for His existence and preservation. Descartes in places seems to affirm that all he means is that God is his own formal cause, but also says the relevant causal concept is rather analogous to an efficient cause, something common to or "between" a formal and efficient cause. He finally seems to revert to the E = ∃ thesis.

Insofar as there is a position here that can be pieced together into a coherent whole, I gather it to be something along the following lines. God does not have an efficient cause in the strict sense for two reasons: first, negatively, because something being its own

[78] It doesn't help that a major school of thought among Descartes scholars is that he has no clear and definite views of the metaphysics of causation. See discussion in Clatterbaugh (1999), pp. 42ff.

efficient cause in the strict sense is incoherent (HR II, 108); second, positively, because the "inexhaustible power, or immensity" (HR II, 108) of God's essence "renders it independent of an efficient cause" (HR II, 109). We thus see in God's essence something analogous to a causal explanation of God's existence, a "concept common to efficient and formal cause alike" (HR II, 109), something "intermediate between efficient cause, in the proper sense, and no cause" (HR II, 110). It is like an efficient cause because it is genuinely explanatory; it explains why God *exists* (the function of an efficient cause, according to Arnauld), and like a formal cause because that explanation is in terms of God's *essence*. And finally, God's essence and existence are "not distinguished."

One gets the impression that, pressed by Caterus and Arnauld, Descartes walked back his view of positive aseity to little more than the negative view of aseity commonly endorsed by the Scholastics, namely, that God's being identical to his essence makes it such that God is causeless, or perhaps better, *a la* Scotus, uncausable. But per the PSR, Descartes maintains, at least in word, committed to something more, a view according to which God has *some* kind of explanation akin to a causal one (broadly enough to include *reason*). But what mind that kind of explanation be?

There are passages that suggest Descartes thought formal causation alone would do, such as when he says in a March 1642 letter "you say 'God is the cause of himself.' Several people have in the past misinterpreted this phrase, and hence it would appear to require some such explanation: 'For something to be the cause of itself is for it to exist through itself, and to have no other cause than its own essence, which may be called a formal cause'" (CSMK, 213). So perhaps if there is anything more in Descartes than the

Scholastic view of negative aseity, it is in the idea that that God's existence is explained in terms of him being his own formal cause.[79]

Unfortunately, I don't see how this helps his rational foundationalist prospects, especially insofar as he's committed to the E = ∃ thesis. Despite notoriously distancing himself from Scholastic niceties, Descartes seems to have in mind the classic Aristotelian sense of formal cause as explanation in terms of a thing's essence ("in taking the entire essence of a thing as its formal cause here, I merely follow the footsteps of Aristotle" HR II, 112).[80] The formal cause of a statue is its shape. The formal cause of a house is its design or blueprint. In these cases, the formal cause and the thing itself are distinct. The statue is not identical to its shape; other things could have the same shape. The house is not identical to its blueprint; the house might never have been built. Formal causes, in these examples, enter into a thing's total explanation, along with the other Aristotelian causes. But God has no other causes. So for Descartes, God's total cause is the formal cause, or God's essence, and God's essence and existence are not distinct. By way of analogy, it is the essence of a triangle that it be a closed plane figure with three sides. Likewise, it is of the essence of God that he exist (HRI, 180ff). But this does not explain *why* God exists. It only gives us the conditional: If God exists, God exists necessarily (cf.: If a triangle exists, it has three sides).[81]

If the usual concept of a formal cause will not do, then we are left to conclude that he had in mind some *sui generis* species of cause, just as he implied in, e.g., HR II, 15-16,

[79] Both Christofidou (2013) and McBrayer (2018) interpret Descartes this way. Unfortunately, neither elucidates what that means exactly.

[80] See also Flage and Bonnen (1997).

[81] *Contra* Hynes (2010).

113. Perhaps this is why Descartes gestures toward God's essence *qua* formal cause as having a unique kind of *power* that *makes* God actually exist, and so is on that account is akin to an efficient cause, and so, an explanation of his existence. Thus the key feature of Descartes' account of God as a formal cause of himself seems to be in assimilating the divine essence with a unique *power*, a feature that Richard Lee argues is present in prior Scholastic accounts of aseity such as Aquinas's, Scotus's, and Suárez's as well.[82] The idea is that things exist by virtue of some power (*virtus essendi*) to resist corruption, a power that arises not from its matter, but its form or essence. A thing resists corruption by another when it is unable to be destroyed by it, and *ipso facto* has a higher order of perfection. We this have a kind of assimilation of infinite perfection and power in an incorruptible essence. Commenting on Suárez's view as a predecessor of Descartes', Lee writes:

> Aseity and infinity have a common term (i.e. a middle term), which turns out to be the active power of a thing. Therefore, while *a se* is merely a negation—*non ab alio*—it is a negation in reference only to extrinsic causes: '*a se* immediately negates only dependence on an extrinsic cause' (*DA* 46). Aseity does not, for Suárez, rule out dependence on something intrinsic and indeed seems to be dependent on the active power of the thing that is its perfection. (111)

Just as there is power stands between aseity and infinity in Suárez, in Descartes

> the power of God stands between the essence of God and the existence of God and can be used to demonstrate that the latter belongs necessarily to the former. Without this middle, the existence of God cannot be demonstrated at all. This issue of the middle term that

[82] Lee (2006).

> could be used in a demonstration of God's existence was precisely the issue that motivated Scotus' proof and is implicit in Suárez's discussion. The formal distinction between two attributes is what allows one to be used as a middle term in relation to others. (116-117)

All this may well be right, but is of no real help to us because, once again, Descartes takes back with one hand what he seemed to give with the other. He does appeal to God's unique power as playing some explanatory role, but denies that God's essential power to exist should be understood in terms of a positive operation of will (HR II, 14, 108, 112).[83] Understandably so, for it is hard to imagine what that could even mean. Are we to imagine God's existence being explained by a distinct formal cause in the manner of, say, Escher's famous paradoxical lithograph of two hands drawing themselves into existence? Presumably not, for there an efficient cause sneaks back into the picture, reintroducing the manifest absurdities of either a bootstrapping or chicken-or-egg scenario. Besides, it should not be forgotten that for Descartes, God's essence, existence, and power are not *actually* distinct. How, then, can any of those be appealed to explain the others? We are left to understand "God's essence is such that He exists by His own power" in the merely negative sense that He, unlike everything else, does not exist by the power of anything distinct and prior to Himself.

In conclusion, despite a veritable morass of passages a *prima facie* reading of which indicates that Descartes had something unique to add to the rational foundationalist's

[83] E.g.: "Thus, even though God has never been non-existent, yet because He is the very Being who actually preserves Himself in existence, it seems possible to call Him without undue impropriety the *cause of His own existence*. But it must be noted here that I do not mean a preservation which is effected by any positive operation of causal efficiency but one due merely to this fact, that the essential nature of God is such that He cannot be otherwise than always existent. (HR II, 14). Italics in the original. Is this not at odds with his remarks in the following pages, where three times he describes aseity in terms of the positive operation of God's own causal power?

project, cutting through that morass reveals little more than the negative sense of aseity we already encountered and found explanatorily insufficient. But in fact the idea of God's being *causa sui* is most closely associated with Spinoza rather than Descartes, so it is to the former we now turn.

2.5. Spinoza (1632-1677)

"Spinoza employs the PSR more systematically, perhaps, than has ever been done in the history of philosophy," writes Michael Della Rocca.[84] Spinoza's commitment to the PSR was so unconditional and absolute that Della Rocca as called his philosophy "rationalism on steroids."[85]

Although some dispute this reading of Spinoza,[86] its justification is plain. Indeed, the first two of his axioms in the *Ethics* together sound very much like a now familiar PSR: "Everything which exists, exists either in itself or in something else" (Ia1); "That which cannot be conceived through anything else must be conceived through itself (Ia2). To exist "in" or to be "conceived though", for Spinoza, is to exhibit what Roger Scruton calls a "rational dependence," where B rationally depends on A just in case A makes B's existence and nature intelligible.[87] For our purposes it suffices to simply say that rational dependence is explanation. Thus, everything that exists has an explanation of its existence, either in itself or in something else. Leaving no room for doubt, Spinoza again

[84] Della Rocca (2008), p. 30. Abbreviations: I = *Ethics* Part I, def. = definition, a = axiom, p = proposition, s = scholium, dem. = demonstration. Quotations from Spinoza (E).

[85] Della Rocca (2008), p. 3

[86] See Garber (2015).

[87] Scruton (1986), pp. 36-37.

asserts his rationalist *bona fides* with a clear-cut PSR in Ip11: "For every thing a cause or reason must be assigned either for its existence or for its nonexistence. ... Now this reason or cause must either be contained in the nature of the thing or be external to it" (Cf. Ip8s2).

Spinoza is not, however, a metaphysical foundationalist in the same sense the others we've looked at are. He rejects transitive chains of dependence that trace back to the existence of something fundamental. But Spinoza certainly believed that there is something fundamental—in fact, that is the only thing that ultimately exists for Spinoza. Everything, he argues, necessarily depends on and is constitutive of a single infinite substance, identified as God, who is "the immanent, not transitive, cause of all things" (Ip18. Cf. Ip28s)—including God himself.[88] Enter Spinoza's unabashed talk of God being *causa sui*, which is central to his entire metaphysical system. The reasoning is straightforward: everything has an explanation. There is ultimately only one thing or substance (Ip5dem)), the fundamental and "absolutely infinite Entity or God" (Ip11s). That thing has an explanation. But since there's nothing besides that one thing, that thing's explanation cannot be in terms of anything beyond or external to it (Ip6; Ip18dem; Ip11s). Hence, since it "cannot be produced by anything else" (Cor. Pr.6), it "is therefore self-caused" (Ip7).[89]

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[88] Ip25s: "In a word, in the same sense that God is said to be self-caused he must also be said to be the cause of all things."

[89] Cf. Scruton (1986), p. 38: "Substance is 'that which is in itself and is conceived though itself', … Spinoza argues (E 1, 6) that whatever is, in this way, conceptually independent, is also *ontologically* independent, dependent for its existence on nothing outside itself. Hence 'existence appertains to the nature of substance' (E 1, 7), and every substance contains within itself the complete explanation of its own nature and existence. In that case substance is necessarily 'cause of itself.'"

The centrality of the idea that the single, infinite substance is self-caused or self-dependent is not lost on students of Spinoza. Forsyth is typical when he says Spinoza's claim that God is *causa sui*

> lays the foundation for his whole system of philosophy. It expresses his fundamental intuition—that of the unity of all reality—in the idea of an ultimate or absolute reality as the necessary cause or ground of all that is. This alone is truly substance or self-subsistent reality. It is the absolutely self-dependent, on which all else depends, and is therefore at once the ultimate in being or existence and in thought or knowledge"[90]

Central though it may be, is not the idea of something causing itself, or being self-dependent, blatantly incoherent? In his inimitable style, Arthur Schopenhauer's scornful jest at the idea undoubtedly captures the impressions of many:

> I for my part see in *causa sui* only a *contradictio in adjecto*, a before that is an after, a bold and peremptory order to cut off the endless causal chain. In fact I regard it as analogous to that Austrian who, unable to reach high enough in order to fasten the clasp on his tightly strapped shako [military hat], got up on a chair. The proper emblem for *causa sui* is Baron Münchhausen on horseback and sinking into the water, gripping his horse with his thighs and lifting himself and the animal up by means of his own pigtail, with the words *causa sui* underneath.[91]

But perhaps this reading is unfair. Della Rocca thinks Spinoza can easily handle this charge of incoherence:

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[90] Forsyth (1972), p. 4.

[91] Schopenhauer (F), p. 21.

> One might, however, object to the notion of self-causation in the following way: causes must exist before their effects, so for a thing to cause itself it must exist prior to itself, which is absurd. Spinoza, however, simply rejects this restrictive notion of causation, and his assimilation of causation to explanation helps us to see how he can do this: to say that a thing is self-caused is nothing more than saying that it is self-explanatory, and this is indeed how Spinoza views a substance.[92]

If we are not to equivocate something's being self-caused with its being self-explanatory, how, then, are we to understand something's being self-explanatory?

We need look no further than the opening line of the *Ethics*: "By that which is self-caused I mean that whose essence involves existence; or that whose nature can be conceived only as existing" (Idef1). For Spinoza, as already mentioned, the ideas of substance and that which is *causa sui* are coextensive: since "substance cannot be produced by anything else (Cor. Pr. 6) and is therefore self-caused [*causa sui*]", he says, it must be the case that "its essence necessarily involves existence; that is, existence belongs to its nature" (Ip7dem). Hence, substance is also described as that "which is in itself and is conceived through itself" (Idef3) and "which exists solely from the necessity of its own nature" (Idef7).

That is, just as we saw in Descartes, Spinoza's initially intriguing and provocative language of something's being *causa sui* reduces to the old E = ∃ thesis, which Spinoza explicitly affirms (Ip20). Harry Wolfson:

> This state of being causeless, which the mediaevals as well as Spinoza himself usually designate by the expression "necessary existence," Spinoza also designates by the expression "cause of itself" (*causa sui*), a phrase which had already been in current use in

[92] Della Rocca (2008), p. 50.

> philosophic literature. *Causa sui*, like the mediaeval "necessary existence," is primarily nothing but a negation, meaning causelessness and to Spinoza it is only a shorter way of saying that the essence of substance involves existence. …It is from this that it is deduced that God is …not conditioned by any other cause nor in any other way dependent upon another being, … and that He is the source of the existence of everything else."[93]

Unfortunately, therefore, Spinoza's notion of God as *causa sui* sheds no new light on the question of how God's existence itself is explained, as required by the PSR to which he, as a rational foundationalist, is so unconditionally and absolutely committed.

2.6. Leibniz (1646-1716)

The *locus classicus* of rational foundationalist arguments is, of course, Leibniz's, who, as outlined in chapter 1, argued from the PSR to the existence of an "ultimate and extramundane reason for things" (AG, 150). Several different versions of the PSR can be found throughout Leibniz's corpus, including the canonical "Everything that exists, exists through something." He writes, "If something is through something else, then it has a reason of existing outside itself; that is, it has a cause." But if something "is though itself, then its reason of existing is taken from its own nature" (AG, 184). Thus, like others

[93] Wolfson (1934), p. 127, 128. Wolfson goes on to say: "Now, according to Descartes, the term *a se*, which he applies to God in the same sense as *sui causa*, has both a negative sense and positive sense. In its negative sense it means that God stands to himself in the same way as an efficient cause does to its effect. The term *causa sui* similarly in Spinoza is not a mere negation, meaning causelessness; it means also something positive: it is an assertion of self-sufficient and hence actual existence" (129). But the "positive sense" amounts to just what it did in Descartes, namely, an ontological argument to the effect that there must be a being whose essence involves existence. It is also worth pointing out that Spinoza introduces power into the equation, which we also saw in Descartes (and as Lee observed, others before him): "From the sole necessity of God's essence it follows that God is self-caused (Pr. Ii) and the cause of all things (Pr. 16 and Cor.). Therefore, God's power, whereby he and all things are and act, is his very essence" (Ip34p).

before him, Leibniz described God as not just a necessary being, but one whose reason for existing is in His own nature or essence. What does Leibniz mean by this?[94]

For Leibniz, anything that exists exists *because* of its essence. Essences, he thinks, have a sort of built-in "propensity" for existence. He writes: "[S]ince something rather than nothing exists, there is a certain urge for existence or (so to speak) a straining toward existence in possible things or in possibility or essence itself; in a word, essence in and of itself strives for existence" (AG, 150). As he goes on to say, this "striving" comes in degrees, the strength of which is proportionate to an essence's degree of perfection. Their degree of perfection is determined by, roughly, how many other things ("requirements") limit their being. By way of analogy, just an object travels uniformly unless acted upon by external forces, a thing's degree of perfection, and hence hold on reality, is limited to the extent that the same in other things are "in the way of" its being (AG, 20). Since nothing limits God's being, God's essence is supremely perfect, and therefore has a maximal propensity to exist.[95] To continue the analogy, God's essence, being supremely perfect, is like an object in motion which cannot possibly be met with resistance. It's propensity for existence is therefore maximal and unabated—necessary existence follows, or perhaps better, *flows* from it. In Leibniz we don't have as much of an E = ∃ thesis as we do an E ⇒ ∃ thesis, where the '⇒' is the special "flows" relation. What to say?

[94] I rely on Adams' (1994) exposition of Leibniz in the following.

[95] We can detect in Leibniz's view here early shades of what now goes by axiarchism, the view that "God" exists because of an ethical necessity. Suffice it to say here that an analysis of axiarchism is beyond the scope of this paper, not least because axiarchism is not usually thought to entail the existence of a theistic God traditionally-conceived.

First and foremost, '⇒' is not to be understood along the lines of efficient causation. Only things which exist through other things have efficient causes. But God exists through himself.[96] Thus, God's essence is a non-causal *reason* for God's existence.

Even so, it is hard to see how God's essence can be an explanatory resource for God's existence without itself *existing*. As Leibniz himself says, "existing things cannot derive from anything but existing things" (AG, 152). Mustn't God's essence, to use Robert Adams' phrase, already have a "foothold in existence" before it can have a propensity to exist? Adams' phrase is particularly apt, as on this account, thanks to His essence, God appears to bootstrap Himself into being—the same metaphysical absurdity in Spinoza which earned Schopenhauerian invective.

Adams is sensitive to the difficulty. He writes, "It seems that he [Leibniz] explains God's existence by God's essence, and he explains the reality of all essences, including God's, as depending on God's existence."[97] In other words, because Leibniz also thought that all essences and necessary truths in general ultimately depend on God (e.g., AG, 218-19), the apparent circularity is that, on the one hand, essences exist because God exists, but on the other, God exists because his essence is such that he must exist. If "because" and "dependence" here are understood as relations of priority, the circularity is plain. And there is reason to treat them that way: to meet the explanatory demand of the PSR, they *must* be explanatory relations where one thing is explained reference to something prior. So understood, I don't see any way around the vicious circularity of saying both

[96] He writes (AG, 184): "If [something] is through itself, then its reason of existing is taken from its own nature … But if something is through something else, then it has a reason of existing outside itself; that is, it has a cause."

[97] Adams (1994), p.176.

that God's essence is prior to God's existence and that God's existence is prior to God's essence.

In defense of Leibniz, Adams cautions that "we must be careful … not to foist on Leibniz claims of priority to which he is not committed."[98] Adams suggests that all Leibniz needs to say here is that there is a *mutual* dependence between God's existence and God's essence in the same way there is between necessary truths and God's understanding. He writes:

> Whatever relations of explanation and metaphysical dependence Leibniz supposes to obtain among these, he cannot consistently suppose that any of them is independent of any of the others in the sense that there is a possibility of its obtaining without them, for he does not believe that there is any possibility of any of them not obtaining. All necessary truths are in this way inseparable from each other. … His argument … does not imply that God's understanding is naturally prior to the necessary truths. It does imply that the truths could not exist without being understood by God, and that is supposed to explain what sort of being the truths have. But it is equally part of Leibniz's view that God could not exist without understanding exactly those necessary truths. Neither could exist without the other.[99]

Because anything at all entails a necessary truth, there are mutual entailment relations between necessary truths. For example, if '1+1 = 2' and 'whatever has a shape has a size' are necessary truths, then each will entail, without seeming prior to, the other. Thus we find in Leibniz, according to Adams, not an E ⇒ ∃ thesis, but an E ⇔ ∃ thesis, where '⇔' is something like mutual modal entailment.

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[98] Ibid., p. 185.

[99] Ibid., p. 185.

Unfortunately, this sort of relation just doesn't seem robust enough to deliver the requisite explanatory goods. There remains an apparent explanatory asymmetry between God's understanding and necessary truths that is not there between ordinary cases of mutual necessary entailment. God's understanding explains what necessary truths there are, not vice versa, even if just those necessary truths modally entail God's understanding. The same is true of the relation between God's essence and existence, as, according to Leibniz, the divine essence's propensity for existence is supposed to explain God's existence. In both cases, the former is explanatorily, if not ontologically, prior to the latter, even if each mutually entails the other on account of their necessity. To all appearances, God's essence *is* "naturally prior," to use Adams' phrase.[100] So what, then, explains *it*? It has a maximal propensity to exist, Leibniz says. But it must first exist to have a propensity to exist. If, in the end, there just is no distinction between God's essence with its maximal propensity to exist and its existing, then we are once again back to the E = ∃ thesis, or one similar enough.

2.7. Conclusion

Although I have argued that none of the preceding accounts of rational foundationalism just surveyed are successful, there are several important lessons we can draw from them.

[100] Compare Kit Fine's (1995) oft-cited example of metaphysical grounding: there is a mutual modal entailment between the set {Socrates} and the man, Socrates. The existence of one entails the existence of the other. But it is the man Socrates that *explains why* {Socrates} exists. So while there is modal symmetry, there is explanatory asymmetry. If we want to say something similar about God's essence and His existence, we'd say God's essence grounds God's existence. But then God's existence would be ontologically posterior to, and asymmetrically dependent on, God's essence.

Those lessons are the subject of the next chapter. I offer here two concluding observations about these historical precedents.

First, it is remarkable how enduring the E = ∃ thesis is. When it doesn't explicitly come to the fore in the accounts we've looked at, it lurks in the background like a soldier ready to jump in battle to save a comrade from defeat. However, it is interesting to note how, after Aquinas, the terminology used to describe the relation between God's essence and existence gets increasingly modest. Aquinas starts with the bold "God's essence *is identical to* God's existence." Descartes says in God essence and existence are "not distinguished." Spinoza favors saying God's essence "involves" existence, and Leibniz that God's existence "flows" or "follows from" God's essence. The lattermost could arguably be interpreted as breaking rank from Aquinas' lead altogether. I will say more about the theological motivations of the E = ∃ thesis in §5.4, as well as the theological ramifications of abandoning it. It is my sense that the Aristotelian-Thomistic metaphysics underlying the thesis has been almost singularly responsible for the arrested development of workable accounts of rational foundationalism.

Second, it must be said that there is nothing novel or interesting in the notion of something's being *causa sui*. As the rationalists used it, it meant nothing substantially different from the traditional E = ∃ thesis. Contemporary nods to the notion, I suspect, is a mere Latin fig leaf covering the rational foundationalist's shame for lacking an intelligible account of how a fundamental being gets explained. However, the phrase is clearly designed to suggest a kind of causal explanation—a kind we normally take to be genuinely explanatory—of the fundamental being. This itself is noteworthy, as it is

perhaps an unintended acknowledgment of the explanatory insufficiency of the E = ∃ thesis itself.

CHAPTER 3

LESSONS LEARNED

> Philosophy is not a science, and there is no state of the art in philosophy. Philosophy is not a matter of expanding knowledge, of acquiring new truths about the world; the philosopher is not in possession of information that is denied to others. Philosophy is not a matter of knowledge, it is a matter of understanding, that is to say, of organizing what is known. But because philosophy is all-embracing, is so universal in its field, the organization of knowledge it demands is something so difficult that only genius can do it. For all of us who are not geniuses, the only way in which we can hope to come to grips with philosophy is by reaching up to the mind of some great philosopher of the past.
>
> Anthony Kenny (2004, xiii)

There are other historical figures whose thought we could have consulted for precedents of rational foundationalism, most notably Richard of St. Victor (1123-1173), St. Bonaventure (1221-1274), Francisco Suarez (1548–1617), Samuel Clarke (1675–1729), and Christian Wolff (1679–1754). But the accounts of the more luminous figures explored in the previous chapter suffice to highlight several important lessons that will be of aid in constructing our own proposal in the next chapter. Three lessons stand out.

3.1 Lesson One: Dependence

Foundationalist-style arguments make use of some sort of explanatory dependence relation. One difficulty in assessing precedents of rational foundationalism is that there

are often multiple, distinct kinds of explanatory dependence relations at work in their foundationalist-style arguments. For instance, it is not uncommon to find references to what we think of as a thing's physical cause as a thing's ground, or even uses of the terms 'cause,' 'reason,' and 'ground' interchangeably, which was cause for much confusion and conflict in eighteenth century philosophy.[101]

The first lesson, then, is that we need to get clear on what explanatory dependence relation is at work when determining satisfactory explanations of things, for different dependence relations are suitable only in certain explanatory contexts. This is not to suggest that there is some one dependence relation at work in all foundationalist-style arguments. On the contrary, any number of what Karen Bennett calls "building relations" may be links in the "great chain of being", be it causation, composition, constitution, determination, set formation, realization, emergence, supervenience, grounding, and possibly others.[102] Much ink has been spilled over the nature of each of these relations, and, indeed, whether some of these relations are wholly specious. Such debates mostly don't concern us here. I am happy to let a thousand flowers bloom, picking whichever relation that happens to suit the explanatory purposes in a given context. Recall that the rational foundationalist thinks being has a foundation, and so is built up from that foundation. It is massively implausible to suppose all things are "built up" by the same relation, as anyone who's ever done a little construction will appreciate. Some things are nailed together. Others screwed. Still others glued, bolted, welded, riveted, and so on.

[101] See Wuellner (1956), pp. 17-21, 105-106 and Hocutt (1974). To give one example, Samuel Clarke: "Whatever exists has a cause, a reason, a ground of its existence, a foundation on which its existence relies, a ground or reason why it does exist rather than not exist" (D, 8). This is a chief complaint of Schopenhauer's in *The Fourfold Root* (F).

[102] Bennett (2017) argues all building relations share a formal structure. For more on Bennett's view, see §4.2.

What matters to the foundationalist is that explanation runs through these chains of dependence, ultimately pointing to a foundation (see §1.1.2).

That said, it does seem to me that any adequate explanation at the level of the foundations of reality will require an explanatory relation particularly suited for *that* task. And in this connection the relation of grounding deserves special mention. Kit Fine has called grounding "the ultimate form of explanation."[103] The debate over the formal or "structural" properties of grounding rages on; and there is no canonical definition. One of the least controversial claims, however, according to Martin Glazier, is that "ground is deeply linked with a certain form of explanation."[104] So Shamik Dasgupta: "As I use the term, 'ground' is an *explanatory* notion: to say that X ground Y just is to say that X explains Y, in a particular sense of 'explains'".[105]

The form or particular sense of explanation Glazier and Dasgupta have in mind is decidedly metaphysical in character. So, Jonathan Litland: "I take grounding to be metaphysical *explanation*: to say that ϕ grounds ψ is to say that ϕ provides a metaphysical explanation of ψ."[106] The emphasis on grounding as a metaphysical explanation distinguishes grounding principally from causal explanations. To take a familiar example, it is often thought that that non-empty sets depend for their existence on their members. The set {Socrates} depends on the man, Socrates.[107] The man Socrates *explains why* the set {Socrates} exists. Yet the explanatory dependence here does not at

[103] Fine (2001), p. 16.

[104] Glazier (2020), p. 121.

[105] Dasgupta (2014), p. 3.

[106] Litland (2013), p. 20.

[107] Fine's (1995) tried and tired but true example.

all seem causal: Socrates doesn't produce {Socrates} in anything like the way striking a match produces its being on fire. So we say that {Socrates} exists and is explained by Socrates not because the latter caused the former, but because the latter grounds the former.

Terms other than "ground" and its cognates are often used to pick out grounding, as is evident by the following list of common examples of grounding:

- Non-empty sets *depend for their existence* on their members.
- A hole in the cheese *depends on* the structure of the Swiss cheese.
- A disjunction *depends on* its true disjunct.
- Density *depends on* mass and volume.
- Existential claims are *grounded* in their true instances.
- Relational properties are *grounded* in relations
- The sandwich exists *because* there is meat between two slices of bread.
- The event of Fido's eating exists *because* Fido is eating.
- Meaning is *due to* non-semantic facts.
- Mental states (e.g., pain) are *due to* brain states (e.g., c-fibers firing).
- Balls have the disposition to roll *in virtue of* their spherical shape.
- One has the right to vote *in virtue of* being an adult citizen.
- S has responsibility to care for S's children *in virtue of* being their parent.
- S has a reason to believe that *p in virtue of* S's perceptual experiences.
- S is obligated to do *x in virtue of* S promising to do *x*.[108]

[108] I don't mean to endorse all of the examples mentioned. Some further comments about grounding generally that will be assumed going forward: First, when speaking generally, I don't think there's anything wrong with referring to any non-causal explanatory ontological dependence relation as a grounding relation, as long as the relation fits those descriptors. Second, that said, I do think there is a particular non-causal explanatory ontological dependence relation that is often called "grounding," which can and should be distinguished from, e.g., causation, constitution, composition, etc. when more precision is required. Third, with respect to that relation, I am sympathetic to a predicational view, according to which grounding is a relational predicate ("*a* is a ground of *b*") between things, not an operator or sentential connective between sentences or facts *a* and *b* ("Grounds(*a*; *b*)"). Fourth, I assume grounding is a multi-categorical or

In all such cases (and others besides) there seems to be an ontological dependence that is at explanatory but non-causal.

Further, grounding is commonly, though not universally, taken to be irreflexive, asymmetric, and transitive; i.e., a strict order. And understandably so: such are also the properties common to explanatory relations generally.[109] Things linked together in this way form a hierarchical structure, where the *explanans* is prior to the *explanandum*. Nothing can bootstrap itself into being, nor can things explain each other circularly. Typically, for one thing to be explained by another is to refer to something *deeper* in the hierarchy. As Fine puts it, "We might think of the strict grounds as moving us down in the explanatory hierarchy. They always take us to a lower level of explanation."[110] The term "ground" today is used almost exclusively to refer to this more restricted notion of ontological dependence, although it is not uncommon to find it being used in wider and narrower senses.

It would be a mistake to infer that grounding, broadly understood as just outlined, is a recent concept from its being a hot topic in contemporary metaphysics. The reality is the grounding has long played an important role in philosophical explanations, arguably stretching back as far as the inception of philosophy itself. The famous scene in Plato's *Euthyphro* is a clear case in point. There, recall, Socrates presses Euthyphro on the nature of piety. Euthyphro answers, "the pious is what all the gods love," to which Socrates

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"dimensional" notion, where the *relata* can be things of different kinds. Finally, I assume that several ontological dependence relations can overlap (e.g., something can be caused, grounded, and constituted by something else at once).

[109] See Nozick (1981), p. 116ff and Glazier (2020).

[110] Fine (2012b), p. 3.

responds, “Is the pious being loved by the gods because it is pious, or is it pious because it is being loved by the gods?”[111] In asking what makes something pious, Socrates is not asking for what *causes* piety, for piety is not something caused in the ordinary sense of “cause”. Piety is not a physical event or state of the world, but a property. Socrates is better understood as asking *in virtue of what* is something pious: is something pious in virtue of being approved of by the gods, or do things merit the gods’ approval in virtue of being pious? What explains why something has the property of piety? What, in other words, is the ground of piety?[112]

And it would not be implausible to interpret rationalists like Leibniz and Clarke, and many before them, as thinking that a thing’s sufficient reason as that thing’s ground in the sense specified above. Leibniz, for instance, did not seem to think of the relation between the world and the “extramundane” being which serves as its sufficient reason as one of causation.[113] The extramundane being must, he thought, be “different from the chain of states, or from the series of things, the collection of which constitutes the world.” Being extramundane, the relation to which this being stands to the world is different from the relation to which states or series of the world stand to each other. The latter relation Leibniz described as one of “physical necessity,” and the former, “metaphysical necessity.” In asking why the world exists, Leibniz is inquiring into its *metaphysical*

[111] Plato, *Euthyphro* 10a (P, 9). Discussed as an example of ground in, e.g., Correia and Schnieder (2012), pp. 2-4.

[112] To anyone who has done even cursory reading in the history of philosophy it should be obvious that grounding, understood broadly as non-causal explanatory ontological or metaphysical dependence, is ubiquitous throughout. What is recent is the attempt to work out an exact logic of ground, but even here there is precedent in, for example, the 19th century philosopher Bernard Bolzano, on which see Correia and Schnieder (2012), pp. 6ff.

[113] Not least because he denied that a substance could cause another. Leibniz’s views on causation are notoriously complicated. For a recent defense of the view that the relation between God and the universe is one of ground and not causation, see Pearce (2017).

explanation, and finds it in on what the world ultimately depends, or to use his term, its "ultimate ground." Referring to the totality of events of the form *x causes y* that make up the causal history of the world as "History," Kenny Pearce captures the spirit of Leibniz's argument well:

> There can be no causal explanation of History, for History is the sum total of all the causal events. Accordingly, the event of the form *x's causing History* would itself be part of History, and so could not, on pain of circularity, explain History. … If [Leibniz's] argument is to work, we must demand an explanation of History as a whole, and this means demanding a non-causal explanation. Such an explanation can be provided by positing God as the *foundational ground* of History.[114]

The connection between the PSR and grounding is not lost on contemporary philosophers, some of whom have articulated versions of the PSR explicitly in terms of ground.[115] I will prefer a more traditionally formulated PSR that includes both causes and grounds (and other ontological dependence relations) as sufficient reasons: every thing that exists has a sufficient reason for its existence, whether it be a cause or ground or both some other ontological dependence relation.[116] Suffice it now to say that something like the notion of ground, as articulated above, has a rich history in metaphysics. As Jonathan Schaffer sees it, the traditional task of metaphysics since the time of Aristotle has been to

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[114] Ibid., p. 248. Italics in the original.

[115] E.g., Della Rocca (2010), Dasgupta (2016), Schnieder and Steinberg (2015), Guigon (2015), and Bliss (MS). One chuckles at Bliss's description of what she calls the "dependence PSR," according to which every dependent fact has an explanation, as "novel"!

[116] As Clarke puts it: "Whatever exists has a cause, a reason, a ground of its existence, a foundation on which its existence relies, a ground or reason why it does exist rather than not exist" (D, 8). See discussion of a similarly worded PSR in Leftow (2003), which Leftow attributes to Kretzmann (1999) who attributes it Rowe (1975), but also finds it implied in Aquinas (discussed in §2.2). See also Davis (1999), and precedents discussed in Copleston (1950).

discover "what grounds what" in an effort to specifically determine what is the ultimate foundation of being."[117] Quite right.

3.2. Lesson Two: Independence

The second lesson is that a much richer understanding of independence and fundamentality is needed. According to typical contemporary usage, whatever is independent or fundamental is *not* grounded. Schaffer is typical when he says "the key notions of *a fundamental entity* (a prior, primary, independent, ground entity) and *derivative entity* (a posterior, secondary, dependent, grounded entity) can both be defined in terms of grounding (ontological dependence, priority in nature), as follows: *Fundamental*: *x* is fundamental $=_{df}$ nothing grounds *x*."[118] But if whatever is fundamental is ungrounded, and grounding is explanatory, then whatever is fundamental is brute.

To the rational foundationalist, this will not do. The PSR requires that the fundamental, like everything else, has an explanation of its existence. Anselm, Aquinas, Leibniz, and other rational foundationalists agree that a fundamental being cannot be explained by anything "outside" or "exterior" to it. This is why all of them ventured accounts of how a fundamental being is one whose explanation is "in itself." This, I take it, is how avoid turtles-all-the-way-down: rather than finding an explanation for the

[117] Schaffer (2009), p. 351. Copleston interprets Aristotle—and indeed much of pre-Socratic philosophy—this way, too. See Copleston (1950), pp. 290-291; 489-490. Further, the quest for the fundamental is a characteristic theme of projects throughout Western philosophy, which attempt to systematize the *scala naturae*, or levels of reality, from the most basic upward, or the least basic downward. See Lovejoy (1936).

[118] Schaffer (2009), p. 373. See also Clark and Liggins (2012); Trogdon (2013); Bliss (2011).

existence of a fundamental being by "going back" to something prior and external to it, the explanation is found by turning inward.

None of the accounts explored in the previous chapter of how an inward explanation works, I argued, succeed. But I do think a successful account of how a fundamental being gets inwardly explained can be given. We just need to make enough room "inside" the fundamental being to fit suitable explanatory relations. But before saying any more about this, we turn to our third and final lesson, which we later help to clarify the requisite concept of independence and fundamentality.

3.3. Lesson Three: Mutual Dependence

It is instructive that all of the inward accounts appealed to mutual relations of a sort, be it reflexively with the $E = \exists$ thesis, or symmetrically with Anselm's mutual relations between *essence*, *to be*, and Leibniz's $E \Leftrightarrow \exists$ thesis. The point is worth taking seriously. What I want to do now is explore whether there may be a kind of mutual dependence relation that is neither trivial or viciously circular. If so, it may be of use in explaining how a fundamental being is inwardly explained.

3.3.1. Purported Examples of Mutual Dependence

I am aware of two dozen (or so) purported examples of mutual, or symmetric, dependence.[119] I am sure there are more. This is a startling fact for a few reasons. For one

[119] Two prefatory points. First, when I refer to "examples" or "cases" of symmetric dependence, I do not mean to imply that they are all *legitimate* examples or cases of symmetric dependence, but only that that is

thing, high-profile articles, dissertations, and books usually cite no more than one or two popularly discussed examples, and from them draw confident, categorical conclusions about the nature of grounding and ontological dependence (e.g., whether it is asymmetric or non-symmetric). But justifying large-scale metaphysical theses on so few examples—controversial ones at that—is risky business, and not likely to convince fence sitters either way.

What's more, the small sample size commonly offered could easily be mistaken for a scarcity of examples, which may create an air of suspicion about not just the legitimacy of those examples, but the prospects for better ones. This, in turn, creates a presumption in favor of thinking ontological dependence is necessarily asymmetric. It's easy to maintain a skeptical stance when faced with one or two disputable examples. But as the examples proliferate from a couple to five, to ten, to fifteen, or up to more than twenty, skepticism starts to look more like obstinate dogmatism. For another thing, because there is no systematic analysis of any wide range of examples, some general morals about symmetric dependence are being overlooked. Although I will not offer such a systematic analysis myself, I will discuss enough examples to illustrate what I think is one of the more important but overlooked morals about symmetric dependence. Let us turn, then, to the examples.

We encountered one example in our freshman philosophy class: Plato's theory of the tripartite soul, where the appetitive, spirited, and rational parts of a man's soul each mutually depend on each other. Another classic example would be Aristotelian

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what they are alleged to be. I think some are not legitimate. Second, in describing these examples, I will speak generally of explanatory ontological dependence, which may cover a range of different dependence relations. It is doubtful that all of the examples pick out the same relation.

hylomorphic compounds, objects which are composites of mutually dependent matter and form.

More straightforward examples of symmetric dependence are of wholes and their parts. Imagine a circle composed of two semicircles. The circle depends for its existence on its parts. Yet, equally, it seems that the two semicircles depend for their existence on not just each other, but on the circle as a whole.[120] Something similar might be said of a mountain and its peak. The existence of the mountain as a whole depends for its existence on its parts, which includes its peak. Yet it seems that the peak depends for its existence on the mountain as a whole.

Somewhat differently, consider how some wholes and parts acquire their kind-essence only in relation to each other. (A kind-essence is whatever properties a thing must have to belong to a certain kind. For example, all closed plane figures whose interior angles add up to 180° belongs to the kind-essence 'triangle') Take an artifact like a wheel. A wheel depends for its existence *as a wheel* on its spokes, and its spokes depend for their existence *as spokes* on not just each other, but on the wheel. Or take organic objects: a human heart is not really a *human* heart unless it plays its part in a human person. Yet we might also say that a human body is not really a *human* body unless it has a human heart.[121] In such cases as these, the whole acquires its kind-essence in virtue of its parts, and its parts acquire their kind-essence either in virtue of each other, the in virtue of the whole of which they are part, or both.

[120] See Thompson (2014), p. 73 and Thompson (2016), p. 47. One can, of course, imagine a semicircle on its own. But then is it *really* a semicircle, or is it a 180° arch closed with a straight line?

[121] Thompson (2014), p. 78 and (2016), pp. 48ff discusses similar examples.

Essences show up in many putative cases of symmetric dependence.[122] This is most explicit in Kit Fine's example of reciprocal essences of fictional characters: it is part of the essence of Sherlock Holmes to be admired by Watson, and likewise part of the essence of Watson to admire Holmes.[123] Both essences depend on each other. Avram Hiller argues that there could even be cases of reciprocal essences between real people, such as inseparable lovers or members of a tightly-knit group.[124] And we have already considered at Leibniz's example of God's essence depending on God's existence and vice versa. That example is significant not just because it also explicitly involves essence, but also because it's a case of symmetric dependence meant to explain the existence of a fundamental being.

David Armstrong's ontology also (arguably) features a case of symmetric dependence at its fundamental level of states of affairs. A difficult question for Armstrong's view is: do states of affairs depend for their existence on their constituents, or do constituents depend for their existence on states of affairs? At times Armstrong seems to maintain that what explains a particular proton, say, p^+, and the universal *being positively charged*, is the state of affairs *p^+'s being positively charged*. Yet at other times he seems to suggest that what explains why there are such complex, contingent states of affairs in the first place is the constituents themselves: p^+ and the universal *being positively charged* explains why there is the state of affairs *p^+'s being positively charged.* Rather than postulate either states of affairs or their constituents as brute and inexplicable, some have

[122] Perhaps not accidentally. I suspect that most, if not all, examples of symmetric dependence will, at bottom, involve essences. Cf. Bennett (2017), 38fn9.

[123] Fine (1994), p. 65.

[124] Hiller (2013).

suggested the best reading of Armstrong's view involves a symmetric dependence between states of affairs and the constituents.[125]

Time travel cases can be used to generate other examples of symmetric dependence between states of affairs. Suppose at t_1 I build a time machine, but only because at t_2 I used a time machine to travel back to t_1 to deliver the design plans. The state of affairs at t_1 exists only because the state of affairs at t_2 exists, and the states of affairs at t_2 exists only because the state of affairs at t_1 exists.[126]

If examples that require time travel are too exotic to take seriously, there are several more mundane physics-inspired examples. Take the two poles of a magnet, where the magnet's north and south poles depend on each other.[127] Or take quantum entanglement. As Toumas Tahko notes, according to the Standard Model of particle physics,

> quarks do not exist independently; they come in groups of two or three, such as in the case of mesons, protons, and neutrons. So, you do not get freely existing quarks …. There seems to be at least a weak type of symmetric *existential dependence* between the three quarks that compose, say, a given proton. In other words, the three quarks that compose a proton are symmetrically dependent on each other for their existence and perhaps even for their *identity* or *essence*.[128]

[125] Discussed in Barnes (2018), pp. 57ff. See also Bennett (2017), p. 14fn9.

[126] Bliss (MS), p. 11n33 cites the example as an explanatory loop that generates a partially self-explanatory fact. Kleinschmidt (2015) presents a time-travel case to reject the transitivity or the irreflexivity and asymmetry of *more fundamental than* and *partially grounds*.

[127] Mentioned *en pessant* in Simons (1987), p. 300. Priest (2014), p. 178. Bliss (2014), p. 248. In Bliss (2011), p. 208, Bliss recommends the case as a counterexample to asymmetry of ontological dependence, but doesn't specify that the north and south poles are the poles of a magnet.

[128] Tahko (2018). More on this example below, §4.3.

For example, each of the three quarks of a baryon depends on the others for its color force, if not existence. More generally but structurally similar, take the determinate volume, density, and mass of any extended object, where again, each quantity depends on the others.[129]

We get another structurally similar example when a bundle theory of objects (according to which all objects are just 'bundles' of properties) is combined with a trope theory of properties (according to which all properties are particular thisnesses, or 'tropes'). Critics of this combo have pointed out that if properties are not *had* by objects but properties *are* particular objects, then presumably there would be bizarre individual objects like a particular bare mass trope: an object that is just a mass trope without attending shape and size tropes. Defenders of the combo have said that there are no such individual objects; rather, some objects must come with others in "dependence clusters".[130] Any mass, size, or shape trope will come with and depend on each other.

Other symmetrically dependent objects, supposing they exist, come not in small dependence clusters, but in large structures of interdependence. This certainly seems to be the case on certain realist views about numbers, for example, where numbers are identified with interdependent nodes or positions within a mathematical structure. For any number n where n is identified with the n^{th} node of the mathematical structure, n is

[129] Discussed in Fine (2001), p. 11; Thompson (2014), pp. 76-78; Thompson (2016), p. 47. The example is reminiscent of Leibniz's example of mutual dependence between space, shape, and motion. For discussion, see Antognozza (2007), pp. 43ff: "In bodies, space—shape—motion, while different from one another, cannot exist one without the other."

[130] As Barnes helpfully puts it. See Barnes (2018), pp. 58ff for discussion and references.

what it is because of its relation to preceding and succeeding nodes, which, in turn, are what they are because of their relation to *n*.[131]

Graham Priest (2014) defends the radical view that *everything*, not just certain some objects in small clusters or large structures, depends for its existence on everything else. All things have what he calls a "merely relational quiddity" and are what they are only in virtue of their relation to others. To illustrate the view, he appeals to the Buddhist metaphor The Net of Indra, where we are to imagine a net stretching out infinitely in all directions, with a monadic-like jewel at each node that reflects every other (including itself). From this metaphysical picture Priest draws the ethical lesson that because we are all caught in this net of ontological interdependence, my happiness and suffering depends (in part) on yours, and yours depends (in part) on mine.

Perhaps a better example of symmetric dependence in ethics is given by Michael McKenna. Consider the principle that *S* is morally responsible for some action *a* just in case it would be appropriate to hold *S* morally responsible for *a*. There is debate among philosophers about which side of this biconditional is dependent on the other: would it be appropriate to hold *S* morally responsible for *a because* S is responsible for *a*, or is *S* responsible for *a* because it would be appropriate to hold *S* morally responsible for *a*? McKenna rejects both one-way dependence construals and instead argues that each side of the biconditional depends on the other.[132]

[131] Barnes (2018), pp. 59ff.

[132] See McKenna (2012).

So much for examples of mutual dependence.[133] Before noting what moral I think we can draw from these examples, a word of caution is in order. Some of the examples, I think, are rightly criticized as viciously circular. But I am also persuaded that some aren't. That is not an assumption I need to make, however. It could be that there are genuine cases of mutual dependence, but we don't know of any. Or it could be that the only genuine case of mutual dependence is found in the fundamental being we're trying to get a clearer picture of. The point of rehearsing the examples is to help illuminate what an acceptable form of mutual dependence might be like, which will then help us get that clearer picture. Now to the moral.

3.3.2. The Priority Problem

To begin, I note that paradigmatic cases of vicious circularity are those where *x* depends for its existence solely on *x* (reflexive dependence), and those where *x* depends for its existence solely on *y* and *y* in turn depends for its existence solely on *x* (binary symmetric dependence). Several of the accounts we looked at in the previous chapter featured such cases, as when it is said that God's essence depends on God's existence (and yet are identical), or that God's existence depends on God's essence and vice versa. And several of the examples discussed above no doubt are structured similarly.

[133] For examples I did not mention, see Barnes (2018) on immanent universals and events, Thompson (2014, 2016) and Rodriguez-Pereyra (2005) on truthmakers, Rodriguez-Pereyra (2015) on propositions and facts, and Hiller (2013) on what he calls "*n*-tets", which is anything whose identity depends on the individuals that make it up, and where the identity of those individuals depends on making thing up that thing. See Robert Koons (MS) on examples supplied by an Aristotelian interpretation of quantum physics.

The problem with all such cases, it seems to me, is the following. First, there are obvious logical problems which afflict bootstrapping and chicken-or-egg scenarios. It seems to be a conceptual truth that any case of non-trivial dependence will feature entities that are necessarily distinct. That is, for any genuine, non-trivial dependence relation *R*, if *xRy*, necessarily, $x \neq y$. This being so, there can be no genuine cases where *x* non-trivially depends on *x*, for *x* is always identical to itself.

Nor can there be genuine cases where *x* depends for its existence solely on *y* and *y* in turn depends for its existence solely on *x*, for the following reason: if the reason *y* exists is *x*, then presumably there is something about *x* that yields, entails, produces, grounds, constitutes, etc. *y*; that is to say, *x* has something *y* doesn't, something necessary for *y*'s existence that *y* itself lacks. The relation between *x* and *y*, at least in that sense, is asymmetric. But the exact same is true in the other direction if *x* in turn depends for its existence on *y*: *y* must have something *x* doesn't that's necessary for *x*'s existence. So *y* asymmetrically depends on *x* for its existence, and *x* asymmetrically depends on *y* for its existence—a contradiction.

We might call this *the priority problem*, seeing as the asymmetry here tracks ontological priority: if *y* depends solely on *x* for its existence, the reason the dependence must be asymmetric is because *x* is *ontologically prior* to *y*. How then could *x* in turn solely depend on *y* for its existence—that is, how could *y* also be ontologically prior to *x*? That is impossible. Likewise, saying *x* depends solely on *x* for *x*'s existence amounts to

x's being ontologically prior to *x*, which is similarly impossible.[134] Nothing can bootstrap itself into existence.

In short, it is a necessary truth that nothing can be prior to itself, and no two things can be prior to each other. This a conceptually basic truth in metaphysics, which is why defenders of foundationalist-style arguments for a fundamental being are so terse when it comes to eliminating the possibility of self-causation, self-dependence, and circular dependence. They are manifestly absurd.

3.3.3. Non-Vicious Mutual Dependence

But there were a lot of examples that don't run into the priority problem, or so I shall argue. Notice that in both cases of paradigmatic viciousness, *x* depends solely on *x* and *x* depends solely on *y* and vice versa—the dependence is *sole* dependence. In what I'm calling sole dependence, if *y* depends solely on *x* for its existence, *x* alone has the ontological resources sufficient for *y*'s existence. But several of the examples of mutual dependence discussed above are such that *y* does not depend *solely* on *x* and vice versa; cases where *x* is necessary but *not* sufficient for *y*'s existence—something else is required. Let us take a closer look.

Naomi Thompson is explicit, for instance, that in the symmetric dependence between mass, volume, and density, each only *partially*, not *fully* (i.e., solely), depends on

[134] Kovacs (2018) convincingly argues against self-grounding, maintaining that self-grounding vitiates both of the theoretical roles grounding is usually thought to play, namely, limning ontological structure and metaphysical explanation.

another.[135] Where each arrow represents partial dependence, she provides the following figure to illustrate:

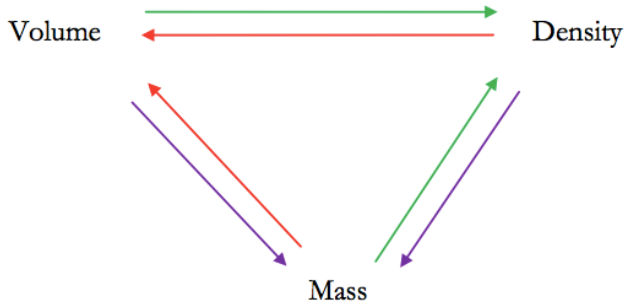

Fig. 5.

The mutual dependence between any two relata here is partial rather than full, and the dependence isn't merely binary, but ternary. In this way, the example isn't obviously viciously circular in the way others are. This same structure, or one similar enough, is also explicit in the examples of quark triplets and bundle-cum-trope theory: we could say each of the three quarks of a baryon partially depend on each other, as do each of the mass, shape, and size tropes.[136]

This 'ternary and partial' structure is also arguably implicit in other examples, but has been overlooked. Bliss, for instance, seems to present the magnet example as binary and full, where the two terms (the North and South poles) are fully dependent on each other. Karen Bennett objects:

[135] Hiller (2013) explicitly acknowledges that all of his examples are of partial dependence. Barnes (2018), p. 64 considers how one might object to her examples of symmetric as follows: "[T]he cases given above might see like they only give support to the idea that partial dependence can sometimes hold symmetrically. …Perhaps full dependence is asymmetric, regardless of whether partial dependence might be non-symmetric." In response, she registers skepticism about there being a substantive distinction between full and partial dependence.

[136] Once again, see §3.3.1 and §4.3 for a bit more about the case of quark triplets.

> But this appearance of symmetric dependence is easily explained away as being a case of common ground: both poles are built from the magnetic field of the object. Compare the fact that if I did not have a husband, I would not be a wife. And if my husband did not have a wife, he would not be a husband. But that counterfactual dependence certainly does not show that the state of affairs of my being a wife and the state of affairs of his being a husband symmetrically depend on each other. Rather, both states of affairs depend upon various facts about social conventions, a piece of paper we signed, and so forth. They have a common ground.[137]

Bennett rightly highlights the presence of a third thing common to the existence of both poles, and so rejects this as a case of genuine mutual dependence between the poles. But without a reason to attribute all the grounding work to what the poles have in common, it could still be the case—and plausibly is—that the poles partially depend on each other as well as (at least) a *tertium quid*.

The same dialectic is replayed in the example of the mutual dependence between being responsible and holding responsible. McKenna clearly thinks of the mutual dependence here as binary and full. Paul Manata objects on the grounds that such would violate commonly assumed properties of ontological dependence (namely, asymmetry), and argues instead that "both being morally responsible and holding morally responsible do not ground each other; both are grounded in a third thing, … the dynamic moral responsibility system."[138] Repeat: Manata rightly highlights the presence of a third thing common to both being and holding responsible, and so rejects this as a case of mutual dependence between being and holding responsible. But without a reason to attribute all

[137] Bennett (2017), p. 37.

[138] Manata (2017), p. 62.

the grounding work to what being and holding responsible have in common, it could still be the case—and plausibly is—that being and holding responsible depend on each other as well as (at least) a *tertium quid*.

Similar points can be made about more examples still: the mutual dependence between the essence of Sherlock and the essence of Holmes is partial, as the essence of both also depends on other things in the Arthur Conan Doyle series. The dependence between form and matter in hylomorphic compounds is partial, as both also depend on something external that joins them together.[139] And so on.

The present point—that it is a relation between no less than three things that gives us the most plausible cases of mutual dependence—makes certain recurring features of several of the precedents surveyed in the previous chapter all the more striking. There was Anselm's mutual relations between essence, being, and the act of existing, for instance. Recall also Lee's analysis of the Scholastic background to the notion of God as *causa sui*, where common to all such accounts of how God's existence is explained is a triplet of divine attributes: aseity, power, and infinity, or essence, power and existence.

Of course, this is not to say the mutual dependence we're looking for need be strictly ternary. The examples of mathematical structuralism and Priest's Net of Indra show as much. But the important moral of the mutual dependence story is: not strictly binary and full, but minimally ternary and partial. Perhaps this explains why the prospect of there being genuine cases of mutual dependence has heretofore seemed so bleak: philosophers

[139] Feser points out that, on an Aristotlian-Thomistic metaphysics, hylomorphic compounds cannot exist necessarily of themselves, "since in purely material substances form depends on matter just as matter depends on form, we would have … an explanatory vicious circle unless we appealed to something outside the firm/matter composite on which it depends for its existence." See Feser (2009), p. 97.

have mostly looked for cases of singular and binary dependence, when the lower bound of mutual dependence is ternary.

We can clarify the point further, benefitting already from our first lesson, by framing it in terms of ground. It is customary to distinguish between full and partial grounding, where *x* fully grounds *y* just in case *x* is by itself the sufficient metaphysical explanation of *y*, whereas *x* partially grounds *y* just in case *x* is not by itself the sufficient metaphysical explanation of *y*, and there exist some *X*s such that *x* is among the *X*s that fully ground *y*. Now we can say: it seems that ontological priority tracks full ground: if *x* fully grounds *y*, then *x* is ontologically prior to *y*. So examples of reflexive dependence where *x* fully grounds *x*, and symmetric dependence where *x* fully grounds *y* and *y* fully grounds *x*, are viciously circular on account of priority problems—bootstrapping and chicken-or-eggs, respectively. But there does not appear to be any priority problems, however, when the mutual dependence is such that *x* partially grounds *y* and *y* partially grounds *x*, and there is a *tertium quid*, *z*, standing in like dependence to *x* and *y*.[140]

3.4. Conclusion

With these three lessons—the need for further clarity on the relevant dependence relations at work, a richer notion of independence, and some form of mutual dependence that isn't viciously circular—I think we are in a position to advance a new proposal on how to be a rational foundationalist. The coherence of the proposal hangs most crucially on the last of these lessons—an acceptable form of mutual dependence.

[140] Might there be an acceptable notion of partial reflexive ground? No, I don't think so. How could something be partly prior to itself?

Have I proven that the ‘ternary and partial’ form of mutual dependence explored is coherent? That is, is it not viciously circular or otherwise massively implausible? Proof is a high standard, especially in philosophy. I suspect a formal model where the possibility of that form of mutual dependence can be derived from certain axioms and assumptions would be needed to approximate a proof. And that I have not given. But I am untroubled by that. Plausible examples, which I have given, are even better; t can later serve as the concrete basis of an abstract formal model should a more interested (and talented) thinker wish to construct one. What we have at present is, at the very least, the ingredients for a promising way forward for the rational foundationalist. I combine these ingredients to form an account in the following chapter.

CHAPTER 4

HOW TO BE A RATIONAL FOUNDATIONALIST

> The question [Why is there something rather than nothing?] cuts so deep, however, that any approach that stands a chance of yielding an answer will look extremely weird. Someone who proposes a non-strange answer shows he didn't understand this question. Since the question is not to be rejected, though, we must be prepared to accept strangeness or apparent craziness in a theory that answers it.
>
> Robert Nozick (1981, 116)

With the three lessons learned from precedents of rational foundationalism detailed in the previous chapter, we are now in a position to take stock and propose how one might be a rational foundationalist. I begin by working up to a richer concept of independence at the heart of what it means to be absolutely fundamental. That in hand, I build, from minimal ontological and explanatory requirements up, the simplest model of what a fundamental being must be like. Because the resultant account of absolute fundamentality departs so radically from the prevailing view today, I follow it up with an account of relative fundamentality to accompany it, answering several objections along the way.

4.1. Absolute Fundamentality—Rational Foundationalist Style

What we have said so far is enough to articulate a fuller picture of what a fundamental being must being like, given the requirements of rational foundationalism laid out in chapter 1 and the lessons we learned from the historical accounts of Anselm, et al.

covered in chapters 2 and 3. We will begin with simple strokes. First, central to the concept of a fundamentality is independence.[141] The question of this chapter is what the requisite concept of independence is—fundamental independence, let's call it.

4.1.1. Building a Fundamental Being

Whereas many philosophers understand 'independence' in this context simply to mean 'not dependent,' as we have seen, historically philosophers have understood it to mean 'not dependent on anything *ad extra*,' or on anything 'external to' or 'outside of' itself. A straightforward way to capture what this means is to say that *x* is independent just in case *x* does not depend for its existence on anything *except for itself*. It will be useful, therefore, to think of *x* as what has been affectionately called a lonely object: an object that exists with no wholly distinct worldmates.[142] The simplest lonely object of all would be just that, a mereological simple. A mereological simple, as the name implies, has no parts. How could a mereological simple have an explanation? Well, all there is is the simple itself. So if it has an explanation, *it* would be its explanation. In other words, the explanatory relation would be reflexive, as shown in Fig. 6:

[141] See Bennett (2017), ch. 5; Tahko (2018).

[142] See Lewis (1983), p. 198 and Lewis and Langton (1998), pp. 333-345.

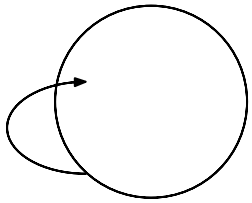

Fig. 6

Depicted here is an object whose existence is explained by the same object. Explanation at this level, recall, is plausibly metaphysical rather than physical, which led us to consider the grounding relation as a suitable relation for our purposes. So framed, the scenario depicted in Fig. 6 is as bad as bootstrapping gets, being a straightforward violation of the irreflexivity of full ground. Self-grounding is just as absurd as self-causation, as both run into what we dubbed the priority problem in §3.3.2. We need more ontological, and hence explanatory, resources for genuine explanatory relations to enter the picture. A mereological simple, a lonely metaphysical atom, as it were, lacks those resources, and so cannot have an explanation.

Thus we must introduce some ontological complexity, the lowest level of which would be "split the atom" in two, so to speak, but not so that it fissions into two separate and discrete atoms. Having two mereological separate simples would be to double the problem, as well as contradict our assumption that the independent being is a lonely object. The division would need to be one where the object retains the ontological integrity of a whole. Let us not split it, then, but *partition* it.

4.1.2. Interlude: A Mereological Proposal

If our lonely object is to have an explanation, it must be "internal." But what internal to a thing might explain its existence? We now have a clear answer: a thing's parts. As Kit Fine notes, "when one object is a part of another, there is a sense in which it is in the other—not in the sense of being *enclosed by* the other, as when a marble in in an urn, but more in the sense of being *integral to* the other."[143] Indeed, it's hard to see what else there could be internal to a thing that could explain its existence. Any attempted explanation for why the universe exists that cites only things internal to it will surely cite its parts, such as galaxies, stars, and planets. Any attempted explanation for why a proton exists that cites only things internal to it will cite its three quarks. Any attempted explanation of why I exist that cites only things internal to me will cite at least my vital organs.

We can now add a bit more precision to what it means to be fundamentally independent:

(FI) *x* is fundamentally independent *iff x* depends for its existence on (and so is sufficiently explained by) nothing but its own part(s).

As is, (FI) is not as radical of a departure from any of the precedents we looked at as it may at first seem. It's not as if Anselm, Aquinas, Leibniz, et al. didn't think things can be explained by appealing to their parts. Aquinas, for instance, clearly thought of the "internal causes" that factor into the explanation of matter-form composites as parts. In fact, all of the accounts we looked at are consistent with (FI), provided we don't specify

[143] Fine (2010), p. 560. Fine's italics. Cf. Simons (1987), p. 322.

that 'parts' refer to *proper parts*: *y* is proper part of *x* if and only if *y* is a part of *x* and $y \neq x$.[144] Anselm, et al. would simply maintain that the explanation of God's existence is found in the *improper* part of his essence, on which he trivially depends. But that, I argued, doesn't deliver ontological resources robust enough to explain his existence.

Proper parts, by contrast (I will argue in due course), do. And that is what Anselm, et al. would reject. They thought, for theological reasons, that a fundamental being—God—could not have proper parts.[145] I have no such theological reservations, however. Thus, on my account, a fundamentally independent being will depend for its existence on its proper parts. Thus:

> (FI*) *x* is fundamentally independent *iff x* depends for its existence on (and so is sufficiently explained by) nothing but its proper parts.[146]

But then what explains the existence of its parts? The ban on 'turtles-all-the-way-down' scenarios eliminates *turtle gunk*: neither *x* nor *x*'s parts can depend on parts all the way down, lest the reason for *x* and *x*'s parts be infinitely deferred and never achieved. So if

---

[144] What sorts of things can be proper parts? I mean, to be intentionally broad, the sorts of things that compose definite and discrete objects; objects are 'built up from' or 'made up of' proper parts. Parts are what give objects their objective ontological structure. I am excluding cases of arbitrary demarcation (your piece of the pie), conventional demarcation (a quart of milk), vague demarcation (the blue strip in a rainbow), and defuse or blended ingredients (the alcohol in beer). Such cases just don't seem ontologically robust enough to count as proper parts in the sense I have in mind.

[145] Most rational foundationalists throughout history held an axiology according to which a perfect (fundamental) being could not have parts because wholes depend on their parts, and dependence is incompatible with perfection. Better, I think, is the venerable tradition of understanding value in terms of organic unity—the harmonious interaction between parts of a whole. More on this in §5.4.2.

[146] What about mereological fusions? I am skeptical of the existence of fusions in anything but a metaphysically "lightweight" sense.

the parts have an explanation at all, they must somehow explain each other. But the ban on bootstrapping eliminates cases of reflexive dependence among the parts, and the ban on chicken-or-egg scenarios eliminates certain cases of symmetric dependence among the parts (chicken parts); cases that are viciously circular on account of exhibiting a priority problem. With these lessons in place, we can build a picture of what a fundamental being must minimally be like rather quickly.

4.1.3. Back to Building

Let us continue the building process by considering how the proper parts of our lonely object might serve as its explanation:

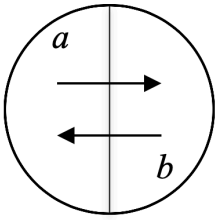

Fig. 7

In Fig. 7 we see an object whose two parts fully ground each other, *a* fully grounds *b* and *b* fully grounds *a*. What we have here is a clear case of chicken parts. If we assume full ground is irreflexive and asymmetric, we encounter a priority problem. Further, assuming full ground is also transitive, Fig. 7 runs afoul of irreflexivity: if *a* fully grounds *b* and *b* fully grounds *a*, then *a* fully grounds *a*. So something like the object depicted in Fig. 7 won't work.

Because several examples of mutual dependence discussed in §3.3.3 gave us reason to think that partial ground may not behave the same way as full ground, might we swap in relations of partial ground, as in Figs. 8-9, to avoid these difficulties? Consider the following models:

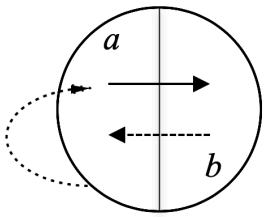

Fig. 8

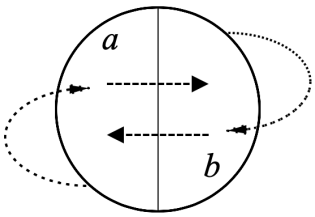

Fig. 9

A moment's consideration of the objects in these figures turns up difficulties. In Fig. 8, for instance, *a* fully grounds *b* and *b* partially grounds *a*, which leaves only *a* itself to fill in its own grounding gap reflexively—a bootstrap. Similarly in Fig. 9, if *a* and *b* only partially ground each other, each is left to only its own resources to get the rest of themselves fully grounded. Each must resort to its own bootstrap.

Consider one last bipartite model:

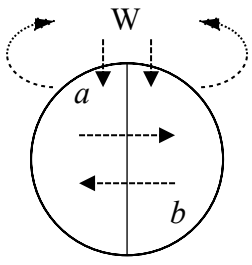

Fig. 10

Here we have the whole distinct from its parts entering the grounding picture. Each part partially grounds the other, as in Fig. 9, but now each also partially grounds the whole, which, in turn, partially grounds each of its parts. Everything gets fully grounded: the whole by its parts, and each part by the other part and the whole.

The problem now is that the symmetric grounding relation between the whole and its parts creates a priority problem reminiscent of a chicken-and-egg scenario. Where a whole is grounded in its parts, it seems that the parts are prior to the whole. But then how can the whole also be prior to its parts? It is true that, as I have argued, partial grounding is not necessarily a priority relation, so one might say that each individual part is *not* prior to the whole, nor the whole prior to any one part; rather, it is only the parts together that are prior to the whole. However, parthood, unlike partial grounding, does seems to entail priority. The word 'cat,' for example, is composed of the letters 'c', 'a', and 't'. I don't know what it would mean to say that the latter 'c', as an individual part of the word, is not prior to the word as a whole, whereas all three letters together are. All three letters (in the proper order) *just are* the word as a whole. Similarly, I don't see how *a* and *b* (in Fig. 10), as *parts* of W, are not each individually prior to W. But if each part is prior to W when they partially ground it (in virtue of being parts of W), how can they fail to be prior to W when it partially grounds *them*? Indeed, if each part is prior to W, and together fully ground W, how could W then even help ground each of its parts? What ontological resources could W bring to its parts that it didn't already receive from them? In the end, the curious object in Fig. 10 confronts problems which afflict cases of reflexive and symmetric full ground.

What is interestingly different about Fig. 10, the importance of which we learned in §3.3.3, is the introduction of a third term (in that case, W) to the grounding picture in an attempt to get more explanatory resources than what just two parts can offer. This can be done, but not by simply adding a third part, as in Fig. 11,

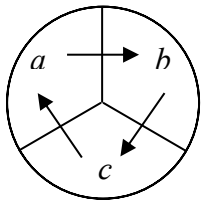

Fig. 11

for this just repeats the problems encountered with the object depicted in Fig. 7, as transitivity of full ground would entail violations of both asymmetry (*c* grounds *a*, and because *a* grounds *b* and *b* grounds *c, a* also grounds *c*) and irreflexivity (*a* grounds *b* grounds *c* grounds *a*, so *a* grounds *a*) of full ground. These problems will recur regardless of how many parts the object has so long as the grounding chain between them remains loopy, as is in Fig. 11.

But suppose we alter the internal structure of the object to be less loopy and more webby, just like our 'ternary and partial' form of symmetric dependence explored in §3.3.3:

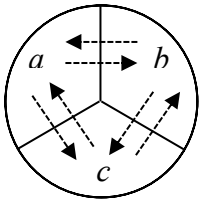

Fig. 12

Seen here is an object that exists because of its parts, and each part exists because of the other two (each part partially grounds the other two, and any pair of parts fully grounds the unpaired part).[147] Because the existence of each of the parts are grounded in, but are not parts of, each other, the model in Fig. 12 avoids the priority problem afflicting the model in Fig. 10: when *a* and *b* ground *c*, *a* alone, as a mere partial ground of *c*, is *not* ontologically prior to *c*. What's prior to *c* in that case is not *a*, but *a with b*. Because the only relation being assumed to hold between the parts is ground—as opposed to, say, parthood or constitution or causation—and because, as argued above (§3.3.3), partial grounding is not necessarily a relation of ontological priority, it cannot be said that while *a* with *b* fully ground *c*, and *b* with *c* fully ground *a*, therefore *a* is ontologically prior to *c* in the first chain but not ontologically prior to *c* in the second. No part is ontologically prior to another.[148] We seem to have here a model where everything is fully grounded and so gets metaphysically explained, satisfying the metaphysical rationalist, all without running into priority problems inherent to bootstrapping and chicken-or-egg scenarios, satisfying the metaphysical foundationalist.

4.2. Relative Fundamentality—Rational Foundationalist Style

[147] Perhaps Fig. 12 is not the only way to model an object that minimally satisfies the rational foundationalist's criteria, but it is perhaps the simplest and most elegant. Here might be another, for example: *a* fully grounds *b* and partially grounds *c*; *b* partially grounds *a* and partially grounds *c*; *c* partially grounds *a*. But there is something suspicious about *a* fully grounding *b*, yet *b* partially grounding *a*. Does this run into the priority problem? And, of course, there could be many such models of objects with more than three parts.

[148] If *a* partially grounds *b*, *b* partially grounds *c*, and *c* partially grounds *a*, does *a* partially ground itself, via transitivity? Just as there are plausible counterexamples to asymmetry of partial grounding, there are plausible counterexamples to transitivity of partial grounding. See Schaffer (2012). Further, we can argue against the transitivity of partial grounding as follows: If partial ground is transitive, then reflexive partial ground is possible. But reflexive partial ground is not possible. Therefore, partial ground is not transitive.

The above is a novel account of *absolute* fundamentality—what is absolutely fundamental. Because my proposal departs so radically from other accounts of absolute fundamentality, I should say something about what notion of so-called relative fundamentality accompanies it. Doing so will also provide opportunity to answer several objections to my proposal along the way.

4.2.1. The Proximity View

The present proposal takes independence to be the central feature of fundamentality. The standard view of absolute fundamentality is, as I mentioned above, rather prosaic: *x* is fundamental *iff x* is not dependent on anything for *x*'s existence. My own proposal shares with this standard view the idea that independence is central to the concept of fundamentality, but sought a richer characterization of independence—one compatible with rationalism—than the standard view. Unsurprisingly, this richer characterization is also at odds with prevailing conceptions of relative fundamentality. Although there are few detailed analyses of relative fundamentality in the literature,[149] the most common view is likewise rather prosaic: where *x* any *y* are in the same grounding chain (ancestrally related), *x* is more (less) fundamental than *y* just in case *x* is closer to (further from) what is absolutely fundamental than *y* is. Call this the *proximity view*.

If the proximity view of relative fundamentality is correct, a picture like the one in Fig. 12 generates some odd consequences. First, note that it is the whole composite object

[149] Notable exceptions are Rodriguez-Pereyra (2015), Bennett (2017), ch. 6.

depicted in Fig. 12 that is being thought of as absolutely fundamental. But if ancestral proximity to what is absolutely fundamental is the metric of relative fundamentality, what can be said about the relation between the whole and its parts, and the parts and the other parts? For example, on the one hand it would sound odd to say that the parts of what is absolutely fundamental are more fundamental than what is absolutely fundamental, but on the other hand no less odd to *deny* that the parts are more fundamental than the whole. Similarly, it would seem odd to deny, where *a* with *b* fully ground *c*, that *a* and *b* are more fundamental than *c* just because *a*, *b*, and *c* are equally close to what is absolutely fundamental (i.e., the whole of which they are part). But if we don't deny that, the priority problem seems to come black: how can *a* be more fundamental than *c* where *a* with *b* grounds *c*, but *a* not be more fundamental than *c* where *c* with *b* grounds *a*?

Notice that adapting the above response to the priority problem—i.e., that *a* is not more fundamental than *c* because *a* alone is not ontologically prior to *c*—will not work here for an important reason. Again, it would be odd to say that *a with b* is more fundamental than *c* while *a* and *b* individually are not. But more importantly, as Karen Bennett shows, the proximity view entails the principle that if *x* grounds *y*, fully *or partially*, then *x* is more fundamental than *y*.[150] Now, if this principle is true, then partial grounding *must be* asymmetric, given that the relation *more fundamental than* is asymmetric. The proof is straightforward: let *R* be the relation of partial ground. Suppose *aRb* and *bRa* (as I suppose is possible). It follows from the aforementioned principle that *a* is more fundamental than *b*, and *b* is more fundamental than *a*. But that's impossible if

[150] This principle is an instance of B→MFT in Bennett (2017), pp. 40ff. Call it G→MFT. More precisely, the proximity view, along with the assumption that the *more fundamental than* relation is asymmetric, entails G→MFT. I deny G→MFT, and via *modus tollens*, the proximity view.

more fundamental than is asymmetric. So, either the principle is false, *more fundamental than* is not asymmetric, or grounding (full and partial) is asymmetric.[151]

I deny the principle, precisely because there are plausible cases where *a* partially grounds *b* but *a* is not more fundamental than *b* (cases of symmetric partial ground).[152] Recall, for instance, the example of volume, density and mass: volume partially depends on mass, but is not therefore more fundamental than mass. But the proximity view is quite intuitive, especially for metaphysical foundationalists—and, correlatively, rational foundationalists—who are drawn to the idea that we can arrive at the existence of something fundamental by tracing chains of dependence 'backwards' towards the fundamental, so to speak.

As it happens, using the proximity metric of relative fundamentality will give the right results in every case of dependence except where asymmetry fails, and where there are dependence chains inside what is absolutely fundamental. But, in such cases—and this is the crucial point—we still have the intuition that some things are more fundamental than others. On the models of absolute fundamentality above, we still have the intuition that the parts of a whole are more fundamental than the whole, and we still have the intuition that, between two coherent models, the one with fewer parts would be the more fundamental of the two. Proximity to the absolutely fundamental is a useless metric at these levels, yet comparisons of relative fundamentality still make perfect sense. Why?

4.2.2. The Quantitative View

[151] Relayed in Bennett (2017), pp. 41-42n.13.

[152] Kleinschmidt (2015) also denies that *more fundamental than* asymmetric (implausibly, I think).

I think there is a simpler, more conceptually basic notion of relative fundamentality at work, where one thing is more fundamental than another just in case the former depends on fewer things than the latter. Or, a little more carefully: for any *x* and *y* (not numerically identical to each other or the things they depend on), *x* is more (less) fundamental than *y* just in case *x* depends for its existence on fewer (more) things than *y* depends on for its existence.

That a quantitative measure of relative fundamentality is more conceptually basic than a proximity measure can be seen by noting the fact that attempts to spell out in more detail what a proximity measure amounts to rely on some form of quantitative comparison. Rodriguez-Pereyra, for instance, writes:

> But what is it to be more fundamental than something else? One answer is that it is to be closer to the fundamental (that is, ungrounded) entity than another thing (where it is understood that a fundamental entity is as close to a fundamental entity—itself—as anything can be). And the obvious way to understand this idea is that x is closer to a fundamental entity y if and only if, in their chain of grounding, *there are fewer elements* between x and a fundamental entity than between y and a fundamental entity.[153]

What Rodriguez-Pereyra refers to in the above as "elements" Karen Bennett calls "building steps." Bennett considers a variety of ways that the proximity view (what she calls "Toy") might be spelled out in more detail, all of which turn on counting building

[153] Rodriguez-Pereyra (2015), p. 529. My emphasis.

steps. She gives the following metaphor to illustrate the idea that "relative fundamentality is relative location in the building structure:"[154]

> Imagine a bunch of towers of wooden blocks projecting upwards toward the sky, and suppose we want to know the relative building location of the individual blocks that compose the towers. … One way to do this is to compare "building distance" between each and some fixed point—presumably, the ground. So: *count the blocks between each target block and the ground, and compare the numbers*. This, of course, is how Toy does it.[155]

Neither Rodriguez-Pereyra nor Bennett endorse these readings of the proximity view, but go on to add their own qualifications. But it seems clear that some quantitative measure is conceptually inherent to any proximity view. After all, how else would proximity be measured but by the *number* of "elements" or "building steps" away from what is absolutely fundamental?

The interesting point is rather that if we ditch the proximity business and stick with just a purely quantitative measure, our view of relative fundamentality need not entail the principle that if *x* grounds *y* (fully *or partially*) *x* is more fundamental than *y*. This is because *more fundamental than* can be made perfect sense of wholly apart from the directional orientation of ground, or ancestral proximity to the absolutely fundamental, by appeal to just the number of grounds a thing has. It does everything the proximity view does while being neutral on what kinds of dependence chains there can be. So which of any two things is more fundamental, whether they partially ground each other or not, is

[154] Bennett (2017), p. 207.

[155] Ibid., p. 155. my emphasis.

determined by how many other things each depends on. And which of two candidate fundamental beings (i.e., anything that can be coherently modeled with the criteria outlined above) is more fundamental is determined by which has fewer parts.[156]

The quantitative view helps to resolve most of the oddities that the proximity view generates on my proposal. It allows us to provide a relative fundamentality comparison in cases of partial symmetric dependence, as well as between two (or more) candidate absolutely fundamental beings. It renders it false that *a* with *b* is more fundamental than *c* while *a* and *b* individually are not because *a* with *b* depends on just as many things as *a* and *b* individually do (namely, two).

However, it remains the case that the parts of what is absolutely fundamental are more fundamental than what is absolutely fundamental, which may sound odd.[157] But the oddity is largely an artifact of terminology. To the rational foundationalist qua metaphysical foundationalist, the language of "more fundamental than" is most meaningful and perspicuous when it tracks proximity to what is absolutely fundamental. But once we arrive there, because it ceases to play that tracking role, the rational foundationalist qua metaphysical rationalist will ditch proximity talk and speak in only

[156] What we identify as *absolutely* fundamental will be what is *most* fundamental among candidates for fundamental beings. See section 4.1.

[157] Alternatively, one might take the three parts to form an irreducible plurality (such as a herd or crowd) and treat that (i.e., the "plural object") as more fundamental than the parts. *They* (the individual parts) would be grounded in *them* (the parts taken together as a whole, the plural object). I understand this to be a combination of Dasgupta's (2014) view that grounding is irreducibly plural on both sides with Schaffer's (2010) priority monism. As interesting as this combo might be for my model of absolute fundamentality, I briefly consider and reject priority monism bellow (§5.3). Further, I doubt an irreducibly plural object has the requisite ontological unity to serve as the sort of singular theoretical explanation that I'm assuming an absolutely fundamental being must. *They* are not disjoint the way members of a herd or crowd are.

quantitative terms And it doesn't sound odd to say of what is absolutely fundamental that it depends on (and so is explained by) more than its parts do.[158]

But the quantitative view of relative fundamentality can only be as helpful to my view as it is independently plausible. Here is one obvious objection to it worth considering. Take two qualitatively identical coffee mugs: Mug 1 and Mug 2. Now suppose Mug 1 has one fewer atoms than Mug 2 does. Is it really plausible to say Mug 1 is therefore more fundamental than Mug 2? One of two things could be said in response.

One could simply bite the bullet and say: Sure, it might seem unintuitive to say that Mug 1 is more fundamental than Mug 2, but it also seems unintuitive to say that Mug 1 is *smaller than* Mug 2. Yet that's technically true. It's just that the size difference is so insignificant that the relative comparison is so indiscernible as to be practically meaningless. The same is true with respect to fundamentality. It would be technically true that Mug 1 is more fundamental than Mug 2, but the fundamentality difference is so insignificant that the relative comparison is practically meaningless, and saying Mug 1 is more fundamental than Mug 2 seems implausible precisely because they are *practically* indiscernible. But if our powers of discernment could reliably detect a one-atom-difference, then perhaps it wouldn't seem implausible to say Mug 1 is more fundamental than Mug 2. Indeed, when we compare particles at the micro or quantum levels, the slightest difference in number of parts and structural complexity does intuitively make a fundamentality difference.

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[158] Bennett says (2017), p. 148 the principle that if *x* is absolutely fundamental and *y* is not, *x* is more fundamental than *y* "is so plausible that it is arguably analytic." But, of course, whether a proposition is analytic or not depends on the meaning of its terms, and on my proposal what it means to be absolutely fundamental makes the principle not even close to being analytic, and, indeed, false.

The second, non-bullet-biting response is to simply deny that Mug 1 is more fundamental than Mug 2. Notice that the quantitative view, as roughly stated, draws a fundamentality difference only where there is an existence difference; i.e., where a thing's *existence* depends on more/less than another thing's *existence*. But as far as coffee mugs go, one atom is not enough to make an existence difference: the existence of a coffee cup doesn't depend on the existence of one atom,[159] so even if Mug 1 has one less atom than Mug 2, it's false that Mug 1 depends *for its existence* on more than Mug 2. Being qualitatively identical, they will depend on the same number of things *for their existence*, and so are equally fundamental. Whatever is necessary and sufficient for the existence of one will be necessary and sufficient for the existence of the other.

Either of these responses seems defensible, and more could be said on their behalf. And more plausibility-testing questions can be put to the quantitative view, but I have said so far should suffice for two reasons.

First, the more obvious questions one can ask of the quantitative view have obvious answers. Question: How do we individuate things? Answer: I don't know. Tell me, and I'll offer a relative fundamentality comparison. Question: How can we tell how many things something depends on? Answer: I don't know. Tell me, and I'll offer a relative fundamentality comparison. Question: How do we know what makes an existence difference? Answer: I don't know. Tell me, and I'll offer a relative fundamentality comparison. A better question would be whether the quantitative view is too thin and needs to take into account what differences in *kinds* makes for relative fundamentality comparisons.

[159] Problems of vagueness aside.

The second reason is dialectical. My aim in putting the quantitative view on the table is simply to indicate, albeit roughly, how relative fundamentality could work on my rational foundationalist proposal, not to articulate and defend a new theory of relative fundamentality for its own sake. Consider the dialectic in Bennett (2017). Bennett thinks the principle discussed above—that if *y* ontologically depends on *x*, fully or partially, then *x* is more fundamental than *y*—is true, and so consequently rejects putative cases of symmetric ontological dependence. Elizabeth Barnes thinks there are such cases, and so consequently must reject the principle, and along with it the proximity view of relative fundamentality. At this stage in the dialectic, Bennett writes:

> But I reject her conclusion, for her ponens is my tollens. And the reason should be clear. I have available to me a straightforward account of relative fundamentality … On Barnes' approach, a different story is required. But what story? … Without having something to compare to the account I offer …, it is hard to do the math, but on the face of it this is a significant theoretical cost.[160]

With the quantitative view, I have given what Bennett asks of Barnes: a "story" about how relative fundamentality works on a view that accepts cases of symmetric ontological dependence, as opposed to an encyclopedia or novel with detailed entries and backstories on all the characters and terms therein.

To summarize, the quantitative view of relative fundamentality is more conceptually basic than the proximity view (as the proximity view assumes it), has the theoretical virtue of being neutral with respect to formal properties of the grounding relation (unlike the proximity view), and can withstand the most obvious objections to it. For these

[160] Bennett (2017), p. 43.

reasons, the quantitative view of relative fundamentality, which is compatible with the proposed novel account of absolute fundamentality above, should be preferred over the proximity view, which is not.

4.3. Conclusion

This is an intriguing picture of what a fundamental being is like. Some might think "kooky" even, at least given more traditional conceptions of the absolutely fundamental as being theoretically primitive and mereologically simple. But it is one we are led to by accepting both metaphysical foundationalism and rationalism. Do we know of anything that exhibits this kind of tripartite structure that might plausibly be taken to be fundamental? I turn to this question in the final chapter.

CHAPTER 5

PUTTING EVERYTHING TOGETHER

> If it is puzzling that *anything* exists, it should seem puzzling that *God* does; if a certain feature's presence in the universe is puzzling, then it should seem puzzling that it, or that which gives rise to it, should be present in God. In neither case is the explanation *complete*. To complete it more has to be built in: the being referred to has to be one whose existence, or whose possession of the relevant attributes, is self-explanatory.
>
> Terence Penelhum (1960, 176)

In this final chapter, after situating my proposal of how to be a rational foundationalist within the context of a broadly outlined foundationalist-style argument, I will consider potential candidates that fit the profile of what I've argued a fundamental being must be like. After considering the chief obstacle to identifying the fundamental being with God—the doctrine of divine simplicity—I conclude with some reflections on the prospects of explaining everything, including God, given the PSR and certain structural features of good explanations.

5.1. The Main Argument

Broadly speaking, a rational foundationalist is one who thinks we can infer the existence of a fundamental being on the basis of an unrestricted PSR about things, including whatever is fundamental. Having argued that a handful of the more prominent historical

proposals of how a fundamental being gets explained are inadequate, I took from them several lessons in constructing my own proposal. My proposal, in short, is that a fundamental being can be fully explained by its parts, and the parts by each other in mutual fashion. The main steps of the overall account can be outlined as follows:

(1) Everything that exists has an explanation of its existence, either wholly in something else, partially in something else and partly in itself, or wholly in itself.
(2) The chain of things sufficiently explained wholly or partly in something else cannot be infinitely deferred (turtles-all-the-way-down) or circular (bootstrapping or chicken-or-egg).
(3) The chain of things sufficiently explained wholly or partly in something else requires the existence of something whose explanation is wholly in itself.
(4) Something whose explanation is wholly in itself is sufficiently explained by its parts.
(5) Something whose sufficient explanation is in its parts requires at least three proper parts, which mutually explain each other.

Step (1) is a statement of metaphysical rationalism, and (2) of metaphysical foundationalism. Step (3) is a consequence of their combination, rational foundationalism. Not all foundationalists are rationalists and *vice versa*, but the views are natural bedfellows, as I've argued, giving us (3). A fundamental being, or an independent being, is one whose explanation is wholly in itself. As noted in §4.1.2, the proposed mereological definition of independence (*x* is independent *iff x* depends for its existence

on, and so sufficiently explained by, nothing but its own parts) is compatible with the historical precedents we looked at: Anselm, et al. could simply say that God trivially depends only on the improper part of his essence. All rational foundationalists, therefore, should be able to accept (4). Where I depart from all the precedents is in (5), my own proposal of how to be a rational foundationalist.

As they are, these are the main steps of an overall account, not premises in a tightly formulated deductive argument with (5) as its conclusion. Such an argument could be sketched in a number of ways in more or less detail. Enthymematically stated, the argument, however construed, amounts to this: the existence of anything entails the existence of a fundamental being with at least three proper parts. Alternatively, if an unrestricted PSR about things is true, then there exists a fundamental being that has at least three proper parts. The argument, then, is not so much for the existence of a fundamental being as it is one about what a fundamental being must minimally be like.

Defenses of the main premises—metaphysical rationalism and metaphysical foundationalism—have been detailed elsewhere, and much of what I'd say on their behalf would be repetitive. But we are now in a position to say a few more things about how the overall account might be fleshed out. Before doing so, I should say that I take (1) and (2) largely for granted for the sake of moving forward to examine the coherence of their jointly entailed consequence, rational foundationalism, which most contemporary defenses of cosmological arguments stop short of doing. The more traditional *modus operandi*, by contrast, typically did include such examinations.[161] In that spirit, following the next section, I will push a bit further by situating my proposal within the context of

[161] Prime examples being Anselm's *Monologium*, Aquinas' *Summa Theologiae*, Samuel Clarke's *A Demonstration of the Being and Attributes of God*, and Charnock's *The Existence and Attributes of God*.

other familiar themes about the nature of the fundamental being to which a PSR-based cosmological argument leads, namely its theological significance.

5.2. A Humean Objection

Recall that in §1.2.2, I suggested that metaphysical foundationalists need not be understood as rejecting any and all types of infinite series as vicious, but only those ordered *per se*. The reason such regresses are vicious is on account of their explanatory deficiency: in a series where *x* explains *y*, *y* explains *z*, *z* explains... *ad infinitum*, explanation is "infinitely deferred, never achieved," to use Schaffer's phrase. But what is lacking?

Having distinguished between partial and full explanation, can now be a bit more precise. If we add that the series as a whole has an explanation "outside" of it, so to speak, that seems to fix things. The addition of an "outside" explanation has a completing effect, suggesting that without which the explanations between the members were only ever partial and so incomplete. Obviously, if each part of a whole is only partially explained, neither the part nor the whole is fully explained.

Hume famously objected to cosmological arguments on the grounds that if each member of a series has an explanation, the series as a whole need not have one. Theists of course demur, insisting that there must also be an explanation for why the series as a whole exists. Alexander Pruss, for instance, offers the following illustration.[162] Consider a cannonball that is flying through the air from 12:00 to 12:01. The state of the

[162] Pruss (2006), p. 41ff.

cannonball before 12:00 and after 12:01 is unknown. For any given time *t*, where 12:00 < *t* < 12:01, the state of the cannonball at time *t* can be explained by the state of the cannonball at time *t*,* where 12:00 < *t** < *t*. As there are infinitely many possible *t**, the state of the cannonball at any *t* can always be explained by the cannonball already having a given speed, momentum, etc. at *t**, and that state can be explained by the cannonball's state at a prior *t**. But no matter how far back we follow the regress of *t**'s, the explanation still seems incomplete: we still don't know why the cannonball is in flight at all. Puss concludes that a complete explanation of the cannonball's flight would have to make reference to it being fired at some time prior or simultaneous to 12:00. So even if the cannonball's flight at every *t* is explained in terms of a prior *t*,* the flight as a whole is left unexplained. Pruss' response is substantively correct, but a more accurate way of stating it would be to say that without reference to the cannonball's firing at or prior to 12:00, no subsequent state of the cannonball is ever *fully* explained. A full explanation of any state of the cannonball's flight will not just reference its preceding state, but also its having been fired at some time prior or simultaneous to 12:00.

Perhaps the following, simpler example is more illuminating.[163] Suppose we seek an explanation of there being five philosophers standing on a street corner in New York at a particular time. One is there because he had just bought bread at a nearby bakery. Another is there because he is on his way to the bus station. Another is there because he is visiting relatives who live nearby. Another is there to catch a taxi. And the fifth is there just because he wanted to take a leisurely stroll. Armed with each of these explanations, would that leave nothing unexplained? I should think not. Would we not still want to

[163] Adapted from Gale (1991), pp. 250-258.

know why there are five *philosophers* on the street corner at that particular time? And would learning that they are all in New York to attend a regional meeting of the American Philosophical Association not bring closure to the explanation? *Sans* this last poignant detail, each individual explanation for why some one philosopher was on the street corner at that time was only ever partial and incomplete.

So much for the Humean objection to cosmological arguments. The foregoing also helps to answer a nearby objection to the explanatory sufficiency of model (Fig. 12). In the same way that explaining any one state of the cannonball's flight solely in terms of its prior state was incomplete, and explaining why the five philosophers were standing on the street corner at that time was likewise incomplete without reference to the conference, one might think that even if *a* with *b* explains the existence of *c*, and *a* with *c* explains the existence of *b*, and *b* with *c* explains the existence of *a*, no explanation has been given for why *a* with *b* with *c* exists rather than not.

This last demand for explanation, however, seems spurious. Because each of the parts has a complete explanation in the other two, explanation isn't deferred. And if each part of the whole has a complete explanation, then it seems the whole has a complete explanation—this last feature of the model being precisely what was lacking in the flight of the cannonball and philosophers on the corner examples. To be as concrete as possible, take a look at this picture of three dominos inter-stacked:

Fig. 13.

Assume the dominos compose a tripartite object. The configuration of any one domino is fully explained by the other two together (ignoring that they're resting on a desk). What explains the configuration of the object as a whole? Well, the three dominos. As far as configurations go, nothing seems unexplained. Now imagine a tripartite object where it's not the spatial configuration of any part that's fully explained by the other two, but the part's very existence. The three parts would seem to explain the existence of the object as a whole. As far as existence goes, nothing seems unexplained.

5.3. Subatomic Particles

Let us turn now to the question of what, if anything, might fit the profile of the fundamental object modeled in Fig. 12. Baryons (e.g., protons and neutrons) stand out as particularly suggestive possibilities. They are, after all, known to have an extraordinarily stable atomic structure, and are already presumed to be somewhere near the "bottom" of material reality. I doubt, however, that they amount to much more than cases possibly illustrative of the requisite tripartite structure, for several reasons.

First, appeals to quantum phenomena to explain anything can be only as certain as our understanding of the raw physics involved, which at this stage of human knowledge must be admitted to be tenuous. If theists are justly accused of conveniently plugging the gaps in our knowledge with God, appeals to quantum whatever to do the same are just as common. Indeed, "quantum physics of the gaps" reasoning may be even worse, for it uses the presumed authority of a genuine *scientia* as cover. At least the theist admits that in God there is something mysterious.

Second, in addition to the difficulty of accurately understanding the raw physics, there is the added difficulty of which is the most plausible philosophical interpretation thereof. Quantum physics is notorious for admitting a plethora of philosophical interpretations. The present case is no exception. Robert Koons is skeptical that the three quarks of a baryon depend for their existence on each other, since "there are interactions in which quarks are re-shuffled between different baryons, so one quark could be destroyed (as in a particle/anti-particle collision) without destroying some of its erstwhile partners."[164] Matteo Morganti thinks there is a mutual ontological dependence between the quarks, but that dependence concerns not their existence or identity, but their "qualitative profiles," namely, their dispositional properties.[165]

The impression I have from my own layman's research matches Toumas Thako's, who I quoted earlier as saying that "the three quarks that compose a proton are symmetrically dependent on each other for their existence and perhaps even for their *identity* or *essence*."[166] He goes on:

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[164] Personal communication 3/24/2020.

[165] Morganti (2019).

[166] Tahko (2018). His emphasis.

> In more detail, the strong bond between quarks is known as *quark confinement* and it is sometimes illustrated with the "bag model". The idea is to think of a quark triplet as if it was inside a stretchy bag. If you then try to separate one of the quarks in the triplet, you'll discover that the bag resists your efforts with an increasing force. The energy that would be required to isolate a quark from the triplet is far greater than the pair production energy of a quark-antiquark pair. So, what happens is that before the isolation could happen, the energy being directed to the process produces mesons—quark-antiquark pairs. Instead of pulling apart a quark from a quark triplet you end up with a quark-antiquark pair (and the original quark triplet remains intact). Hence, it appears that the quarks in a triplet are existentially dependent on each other. It is important to see that this dependence among the quarks may not be purely causal. If there were independently existing quarks that sometimes get bagged together, then their mutual dependence would indeed seem to be merely causal. But given that we have never observed independently existing quarks, it seems that the existence of one quark necessitates the existence of another one. This is already enough for existential dependence.[167]

So who's right? I don't know. But it doesn't really matter, for there is a simple reason that subatomic particles cannot be fundamental on my view: subatomic particles depend on a myriad of things other than their proper parts, such as fields and other particles, as well as space itself (At least if you're a substantivalist about space, which I am sympathetic to). So they just don't meet the criteria of absolute fundamentality specified in (FI*). There are still other reasons for not regarding subatomic particles as candidates for what is fundamental, reasons which push us in a different, more Leibnizian "extramundane" direction.

[167] Tahko (2018). Koons points to experimental evidence suggesting there can be free quarks, *pace* what Tahko says. See Siegel (2019). But the states in which free quarks are said to exist seem so ephemeral (e.g., either an infinitesimally brief moment of time, or in a quark-gluon plasma state) that they might well lead us to question what it means to *exist*, really. So I do not see such evidence as conclusive. Besides, the salient question is not whether free quarks can exist, but whether the quarks of a particular baryon can exist without the others after entering a bound state.

5.4. Razors, Lasers, Erasers

Suppose I am right that a fundamental being must have at least three proper parts. Is there reason to think a fundamental being has *only* three parts? We're all familiar with Ockham's Razor: don't multiply entities beyond necessity. Jonathan Schaffer (2015) has recently proposed a more restricted version of Ockham's Razor—Schaffer's Laser, we might call it—according to which we shouldn't multiply *fundamental* entities beyond necessity. Fine, there exists just one fundamental being. This would eliminate subatomic particles as candidate fundamental beings.[168] Now, Schaffer thinks the one and only fundamental being is the cosmos, which grounds its many, many parts; i.e., all the rest of what exists. Such a view is unavailable to the rational foundationalist, however, as it requires seeing the cosmos itself as ungrounded, and hence, unexplained.

But even if one rejects the PSR, it seems methodologically insane to reject explanations *tout court* where they *can* be given. This is what any parsimony principle amounts to—avoid the explanatorily gratuitous, but also avoid, if possible, brute, inexplicable entities. But if the PSR assumed throughout this dissertation is true, we're never required to postulate a brute, inexplicable entity, not even the fundamental being itself. So my view explains one more thing, the most important thing—the thing that explains everything else—than Shaffer's.

[168] Although I will not pursue this line here, it is also plausible that whatever is absolutely fundamental must be necessarily existent, since a necessary being is required to stop the chain of explanations of contingent beings. It would be massively implausible to regard subatomic particles as necessarily existent, not least because they came into existence at the Big Bang.

One might combine Schaffer's view and my own by reversing the order of explanation between the fundamental and the grounded: there is just one fundamental being, the cosmos, but it is grounded by its many, many parts, invoking our non-vicious form of mutual dependence between all the parts, or just those at the "lowest" level. This is an intriguing view that deserves further exploration. But in response, I have a parsimony principle of my own to recommend, Chad's Eraser: just as we shouldn't multiply fundamental entities beyond necessity, we also shouldn't multiply *parts of* a fundamental entity beyond necessity. It's hard to see what reason one could have for restricting Ockham's Razor to just the number of fundamental entities but not the ontological makeup of the fundamental entities themselves. Imagine explaining to a kid in a candy factory that he can have only one piece of candy, but it can be as large as he wishes. So much for restraint! Applying the Eraser to the inverted Schaffer view eliminates all parts of the fundamental being but three, since that is all that is required to explain the fundamental entity on my proposal. The simplest view of all, then, is that there is just one fundamental being with three proper parts.[169]

5.5. Against Simplicity

[169] Arguably the simplest view of all would be one like Schaffer's (2010), but with parts all the way down (turtle gunk). This is because postulating an infinite number of entities may in some cases be simpler than postulating a large but finite number of entities. For a defense and nuance of this application of the criterion of simplicity, see Swinburne (2004), p. 55. More precisely, Swinburne's claim is that "hypotheses attributing infinite values of properties to objects are simpler than ones attributing large finite values…But note that the preference for the infinite over the large finite applies only to degrees of properties and not to numbers of independent entities." (idem.). But we can still make use of Swinburne's point by seeing the number of parts of a fundamental being as a property of the fundamental being, especially if they are posterior to it. Of course, the problem with such a view is that it is explanatorily vicious.

If God exists—and most rational foundationalists, having accepted PSR-based cosmological arguments for the conclusion that He does—then surely God would be the one and only absolutely fundamental being. But a major obstacle to identifying the tripartite fundamental being of my proposal with God, however, is the doctrine of divine simplicity, according to which God is absolutely simple and incomposite, altogether lacking parts. This doctrine, therefore, deserves to be addressed head on. I argue in no uncertain terms that it is philosophically and theologically misguided.

The chief argument for divine simplicity is that it is necessary to preserve another divine attribute, divine aseity. To exist *a se*, we are often told, is to enjoy the perfection of existing independently of everything else. That is to say, a being that exists *a se* does not depend on anything, period. Hence, no composite being can exist *a se*, since composite beings are dependent for their existence on their parts, and therefore imperfect. Anselm, for example, writes:

> For, everything which is composite requires for its subsistence the things of which it is composed, and, indeed, owes to them the fact of existence, because, whatever it is, it is through these things; and they are not what they are through it, and therefore it is not at all supreme (M, XVII, 113).

Contemporary proponents of simplicity echo Anselm almost verbatim. William Mann:

> The DDS [Doctrine of Divine Simplicity] is motivated by the consideration that God is a perfect being, and that qua perfect, he must be independent from all other things for his being the being he is. … If God himself were composite, then he would be dependent

> upon his components for his being what he is, whereas they would not be dependent upon him for being what they are.[170]

The argument is clear and needs no further gloss, and the implication is obvious: the tripartite fundamental being of my proposal depends on its parts, and so cannot enjoy the divine perfection of aseity, and so cannot be properly identified as God. There is much to be said in response to this argument, but I will confine myself to two main points: first, this argument trades on an insufficiently nuanced understanding of aseity; and second, that a more nuanced understanding of aseity is not just compatible with, but congenial to, my view that a perfect being depends on its parts.

5.5.1. Aseity

The ironic fact is that arguments to the effect that simplicity secures aseity depend on a rather simplistic and historically truncated understanding of aseity. While the etymology of 'aseity' is Latin (*a se*), the earliest reflections on the attribute are found in the Greek church fathers, who preferred the term *agenetos* (unoriginated, uncreated). The term *agenetos*, however, seems to have denoted a richer concept than what a wooden translation would suggest. As G. L. Prestige writes in the introduction to *God in Patristic Thought*, "to call God uncreated was tantamount to calling Him infinite perfection, independent reality, and the source of all finite being; He alone is absolute; all else is dependent and contingent."[171] He continues:

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[170] Mann (1983), p. 268.

[171] Prestige (1975), p. xx.

> The idea of creation was therein contrasted with that of self-grounded existence … The ageneton exists *per se*: its cause lies within its own being. As being independent of all other existences it enjoys perfection. Creatures, since their existence is not self-grounded, are necessarily imperfect.[172]

This is not likely to satisfy those who prefer their definitions to have the clarity of precise necessary and sufficient conditions. To exist *a se* is to be uncreated, yet also to have one's cause "lie in one's own being." To exist *a se* is to be independent, yet also to be "self-grounded." It's almost as if the attribute is being described with two pairs of contrary concepts!

We encounter this same confusing theme in the descriptions of aseity by contemporary systematic theologians, who, rather than attempting to define the concept, seem to instead resort to a thesaurus. And this thesaurus turns out to be a rather unhelpful one, since the panoply of associated terms are by no means synonymous or equivalent. Consider two examples. In his widely referenced text, Reformed theologian Louis Berkhof writes:

> God is self-existent, that is, He has the ground of His existence in Himself. This idea is sometimes expressed by saying that He is *causa sui* (His own cause)… The idea of God's self-existence was generally expressed by the term *aseitas*, meaning self-originated, but Reformed theologians quite generally substituted for it the word *independentia* (independence)…This attribute of God is generally recognized, and is implied in heathen religions and in the Absolute of philosophy. When the Absolute is conceived of as the self-existent and as the ultimate ground of all things, which voluntarily enters into various relations with other beings, it can be identified with the God of theology. As the self-

[172] Ibid., p. xx, p. 46.

> existent God, He is not only independent in Himself, but also causes everything to depend on Him.[173]

The second example of the thesaurus approach comes from the protestant theologian Jack Cottrell. He writes:

> The second nonrelational attribute of God is his *self-existence*. This is also called his aseity, from the Latin expression *a se*, meaning "from himself, of himself." It literally means that God derives his existence from himself and not from any outside source. His being is not derived from anything and is not dependent on anything; he just exists. He is self-sufficient, immortal, indestructible, and independent. He cannot die, he cannot disappear; he cannot self-destruct. All this is in sharp contrast with all created being, which by the very fact of creation owes its existence to something outside itself, namely, the Creator-God.[174]

As I say, such descriptions are typical. Sadly, contemporary philosophers who have written on aseity, who usually pride themselves on their analytic clarity over the offerings of theologians, are no better.

Despite the burgeoning literature on aseity among philosophers in recent years, philosophical analyses of the attribute are surprisingly terse, and do not at all reflect the richness found in the Patristics onward. I note that in his five-hundred page book on the coherence of aseity, William Lane Craig devotes a mere three pages to analyzing the attribute itself (that's 0.6%!), settling with what he calls a "minimalist or 'thin' conception of divine aseity": God exists *a se* if and only if He exists independently of

[173] Berkhof (2017), pp. 36-37.

[174] Cottrell (2003), p. 69.

everything else.[175] The rest of the book defends aseity against the threat of realism about abstract objects. Jeffrey Brower has a similar approach. In the beginning of his chapter "Simplicity and Aseity" in the *Oxford Handbook of Philosophical Theology*, Brower says God is "an absolutely independent being—that is, a being who if *first* or *primary* in the sense that he does not depend on anything distinct from himself. Such a being, it is often said, exists from himself (*a se*)."[176] The rest of chapter defends divine simplicity as motivated by this conception of aseity, which is not analyzed any further. This "minimalist conception", to use Craig's term, certainly captures *an* aspect of aseity, but it does not, I argue, give due justice to the attribute traditionally conceived.

Progress towards that end can be made first by taking a closer look at the descriptions of aseity by those who take the thesaurus approach. Of the panoply of associated terms, we find some which seem to pick out something negative, and others, something positive:

Negative	Positive
Independent	Self-existent
Underived	Self-sufficient
Unoriginated	Metaphysically absolute
Unconditioned	Ultimate ground of being
Uncaused	Self-caused
Indestructible	Self-grounded

We might say the conceptual core of the first group is the idea that God, unlike everything else, owes His being to nothing "beyond" or "external" or "outside of"

[175] Craig (2017), p. 3.

[176] Brower (2009), p. 107.

Himself (the scare quotes signaling yet another layer of conceptual ambiguity). Call this the *negative conceptual core* of aseity. It is this negative conceptual core of aseity that Craig, Brower, and others articulate in their minimalist conceptions. But giving the traditional concept of aseity its due requires acknowledging the other column, the conceptual core of which we can say is the idea that reason for God's being is "imminent" or "internal" or "inside of" God Himself. Call this the *positive conceptual core* of aseity.

This is not to suggest that historical voices on aseity have given equal emphasis to both conceptual cores. Aristotelian presuppositions led the Medievals to emphasize the negative conceptual core, whereas rationalist presuppositions, especially the PSR, led the Moderns to emphasize the positive. Today's defenders of simplicity focus exclusively on the negative conceptual core of aseity, ignoring the powerful motivation the positive conceptual core derives from the PSR. As I will now explain, the tripartite fundamental being of my proposal is a rapprochement of both.

5.5.2. Dependence and Perfection

Defenders of divine simplicity are certainly on to something when they claim that a perfect being cannot be a dependent being. But we must be careful here. There is much to explore in the concepts of perfection and dependence as it relates to aseity.

Notice first that what the chief argument for divine simplicity presumes is incompatible with aseity is not dependence as such, but *asymmetric* dependence in particular. Anselm says composites owe their existence to that which composes them, but not the reverse. Mann says the composites depend on their components, but not the

reverse. So, granted, there is something about asymmetric dependence that seems incompatible with perfection. But what that is, I suggest, is ontological self-*in*sufficiency, where a thing needs to answer to something beyond, external to, outside of, and separate from itself for its existence—something other than its own proper parts. But the tripartite fundamental being of my proposal is not asymmetrically dependent in that sense. The very virtue of independence, on my account, consists in *not* asymmetrically depending on anything beyond, external to, outside of, and separate from itself.

Once again, framing the point explicitly in mereological terms might help us to appreciate the significant differences between these types of dependence. As Peter Simons notes, there are weaker and stronger concepts of dependence and independence, where "the stronger the concept of dependence involved, the weaker the correlated concept of independence, and vice versa."[177] The strongest concept of independence Simons considers is formally expressed as

(|IN|) $\Diamond(\mathrm{E}!a \wedge \forall x\, \lceil x = a \rceil)$

i.e., there possibly exists exactly one individual *a* such that for any *x*, *x* is strictly identical to *a*. Any object that is independent in this sense must be absolutely simple. He explains:

> An object is independent in this sense if it could be all there is. This is such a strong condition that it is not clear that even God would fulfill it (what of his thoughts?). At all events, any object fulfilling this lonely condition would, in the world in which it is alone,

[177] Simons (1987), p. 301.

> be absolutely atomic, for the proper parts of an object are distinct from it. This might explain some of the appeal of the idea that God is a monad.[178]

Here we see that such a strong notion of absolute independence is logically equivalent to simplicity, and Simons is (rightly) dubious of there being anything independent in so strong a sense.

But he does (also rightly) acknowledge that "there is something attractive about the idea that an object could comprise the whole universe"—i.e., there could be a possible world in which only one object exists, and that "this idea can be given a less rarefied interpretation" by requiring not that there be nothing not-identical to that object, "but merely that there be nothing disjoint from it."[179] In mereological terms, *x* is disjoint from *y* if and only if *x* doesn't overlap *y*, and *x* overlaps *y* if and only if here is some *z* that's a proper part of *x* and *y*. This "less rarefied" form of dependence can be formally expressed as (using '⊂' to mean, roughly, 'is included in'):

(IN) $\Diamond(\mathrm{E}!a \wedge \forall x \ulcorner x \subset a \urcorner)$

i.e., in some possible world where *a* is the only object that exists, whatever is not strictly identical to *a* is included in, or is a proper part of, *a*. (IN), in other words, is the formal expression of (FI*), the concept of independence articulated in the previous chapter (§4.1.2) that I proposed is central absolute fundamentality. I now suggest it is sufficient for the perfection of aseity: anything independent in this sense does not derive its

[178] Ibid.

[179] Ibid., pp. 301-302.

existence from anything *ad extra*, or "outside" itself.[180] To depend on something *ad extra*, or "outside" itself can be formally expressed as the complement of (IN), (using '$\int$' to mean 'is disjoint from'):

$(\overline{\text{IN}})$ $\Box(\text{E!}a \wedge \exists x\, \lceil x \int a \rfloor)$

i.e., individual *a* is "essentially such as to have something disjoint from it."[181] *Disjoint* dependence, then, will be the hallmark of forms of dependence incompatible with the perfection of aseity.

Furthermore, if we add that whatever is included in *a* is *essentially* a part of *a*, then the concept of independence expressed in (IN), Simons thinks, plausibly "exclude[s] cases where objects have essential parts as cases of dependence; the idea is that an object is dependent if it requires the existence of something which is not a part of itself."[182] If we insist on using the word "dependence" in this context, we might nonetheless say it is a metaphysically thin form of dependence, whereas that in $(\overline{\text{IN}})$ is metaphysically thick. The sort of independence required by the divine perfection of aseity is compatible with metaphysically thin dependence, and the fundamental being, on my proposal, could be thus thinly dependent on its parts. Indeed, its parts are precisely what serves to make it truly ontologically self-sufficient: unanswerable to anything beyond, external to, outside of, and separate from itself for its existence. And my proposal does not just stipulate that

[180] Again, this seems true of parts generally. See §4.1.2.

[181] Simons (1987), p. 302. Recall that *a* is disjoint from *x* iff they have no parts in common. Note that $(\overline{\text{IN}})$ "should not be misunderstood as entailing that whatever is disjoint from *a* is *spatially* outside of it." See idem. for details.

[182] Ibid., p. 303.

by categorical fiat or by writing philosophical checks it cannot cash ("E = ∃", "*causa sui*"). It makes it plain step-by-step.

Suppose, however, that what is anathema to perfection is asymmetric dependence generally, not just that sort specific in ($\overline{\text{IN}}$). Recall that it is an oddity of my account that the parts of the absolutely fundamental being are more fundamental than it, because they depend on fewer things; whereas the absolutely fundamental being depends on its three proper parts, each of which depend on only the other two. Why not maintain that the relevant referent of "perfect being" is that in which *all* chains of asymmetric dependence ultimately terminate—i.e., the plurality of the tripartite being's parts? They, after all, are in no way asymmetrically dependent, but each is symmetrically dependent on each other. And it is far from obvious that symmetric dependence is incompatible with perfection. For if each part partially depends on the others, none is prior to the others. In such a case, how could there be a perfection ranking between them? It seems they would be equally perfect; we might even think of this web of ontological interdependence, this unbreakable, interlocking ontic bond as a deep insight into the nature of true perfection, in contrast to the sort of extreme ontological solitude implied by simplicity. More on this in due course.

A second point to consider about perfection, dependence, and aseity is methodological. Blaise Pascal recoded a profound spiritual experience he had on the evening of November 23, 1654, an experience he says was of the "God of Abraham, God of Isaac, God of Jacob, not of the philosophers and savants." Pascal's Memorial, as it is known, emphasized the important distinction between the God of the philosophers, a kind of generic theism, and the God of particular faith traditions, such as the God of Christianity. Suppose God exists, and we follow Pascal in allowing that the true God may

not be the God imagined to exist by the philosophers, that is, a being whose attributes are neatly deducible within the austere metaphysical framework of Aristotle and his commentators.

What is a perfection for that kind of being may not be a perfection of, say, the Christian God, at all, just as flying is an avian perfection but not a bovine one. And surely it would be most appropriate for the Christian to tether his intuitions about divine perfections first and foremost to what he believes God has specially revealed about Himself, rather than to the writings of Aristotle. If in doing so he concludes tri-unity is a divine perfection, apart from some model of how tri-unity is compatible with simplicity, he is well justified in rejecting simplicity as a divine perfection. In point of historical fact, Aquinas unwittingly inherited his strong doctrine of simplicity from an Aristotelian tradition shaped by Muslim and Jewish apologists with explicitly anti-Trinitarian intent, which explains his departure from a more modest concept of divine unity found in his Christian predecessors like Augustine and Anselm.[183] Contemporary Christian philosophers like Mann, following Aquinas, are likewise unwitting heirs of that anti-Trinitarian tradition, and thereby display a perverse theological prioritization of simplicity over tri-unity, when the former should be understood in light of the latter rather than *vice versa*.[184]

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[183] Burnes (1989). Burnes writes, "The 'unbelievers' against whose 'ridicule' [Aquinas] wished to protect the Christian cause by not trying to offer rational proof for the Trinity were undoubtedly the Muslim and Jewish philosophers, whose approach he so much admired and imitated. What he probably did not fully appreciate is that their arguments for the divine simplicity which he adopted, and which would have been the basis for their 'ridicule', had by no means emerged in a neutral context but had been forged as weapons in a battle against the doctrine of the Trinity... Ironically then, Thomas accepted as the deliverances of authentic natural reasoning a tradition which had been formed specifically to counter the Trinitarian theism in which he believed." (p. 287)

[184] Traditional models of the Trinity feature priority relations between the members of the Trinity, the Father being explanatorily (if not ontologically) prior to the Son and Spirit, and on the Western view, the

My final point about perfection, dependence, and aseity concerns the underlying axiology for understanding perfection. Judgments about perfection are value judgments. A mereologically simple being is *greater than* a composite being, defenders of simplicity argue—that is, higher up on some axiological scale tracking ontological greatness, supremacy, and magnificence. But what, exactly, justifies the axiological intuition here? *Why* is a simple being greater than a composite being?

We are told it is because a composite being is dependent whereas a simple being isn't. But why is dependence *per se* thought to be an imperfection? Again, it does seem that the sort of dependence in ($\overline{\text{IN}}$) is an imperfection, but that is because anything so dependent could not be "all there is", to use Simons' phrase, which seems incompatible with other divine perfections, such as being the creator and sustainer of all that exists apart from oneself. Beyond that, why is dependence *per se* thought to be an imperfection? Apart from an axiological framework in which such value judgments can be meaningfully made, the intuition seems groundless.

In fact, dependence is central to perhaps the most venerable framework for thinking about value, that of unity-in-diversity. A good painting unites a diversity of form, textures, colors, tones, etc. into a beautiful image. A musical symphony unifies across time a diversity of sounds into a pleasing score. A novel will tie together various themes, plots, and characters into a meaningful narrative. Even the English word 'good', Robert Nozick points out, "stems from [an Indo-European] root, 'Ghedh', meaning 'to unite, join, fit, to

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Son as prior to the Spirit. I do not see how such asymmetric relations square with the divine perfection of aseity, which presumably all three persons of the Trinity, being fully divine, enjoy. Recent work on the Trinity and aseity do not seem to appreciate this difficulty, as I point out in McIntosh (2014a), McIntosh (2014b), and McIntosh (2019).

bring together'".[185] But the goodness of certain imagines, sounds, and narratives doesn't come from their being mere collections of arbitrary elements; they are united in a way that achieves harmony, which is a function of the degree of unity brought to the degree of diversity found in the thing. Value increases when more diversity is brought into a tighter unity. Theories that unify a diversity of phenomena in their explanations have a high degree of theoretical value; they are often described as elegant and beautiful. So, too, with personal relationships, where different lives join in intimate ways to create shared experience. Such is also the value of knowledge and understanding. We don't want beliefs that just happen to be true, value knowledge, where justification or warrant brings truth and belief into a proper unity. Even the Medievals, who clung so tenaciously to the absolute simplicity of God, acknowledged unity alongside truth and goodness as somehow inextricably tied to being itself.[186]

This value-giving kind of unity-in-diversity has historically been called *organic unity*, so-called because of its paradigmatic presence in living organisms. Living organisms are, in Nozick's words "wholes whose parts are related and homeostatically regulated in intricate and complicated ways, unified though time despite changes in their parts."[187] Degree of value is closely related to degree of organic unity, so much so that we "we can rank [the value of] organisms roughly in accordance with their degree of organic unity, so that most plants come below most animals, with higher animals coming above the lower ones. Sentience and then consciousness add new possibilities of unification over time and

[185] Nozick (1981), p. 418.

[186] See the essays in MacDonald (1991b), especially those by MacDonald.

[187] Nozick (1981), pp. 416-417. Even stubborn mereological nihilists like Peter van Inwagen are impressed enough by the unity found in living organisms to afford them special ontological status.

at a time, and self-consciousness, being an 'I', is an especially tight mode of unification."[188]

The application I have in mind should be obvious. If the value of something is somehow determined by degree of organic unity, then far from being supremely valuable, an absolutely simple because would lack value altogether. So we have the following argument against simplicity:

(1) If *x* is valuable, *x* is an organic unity.

(2) God is valuable.

(3) Therefore, God is an organic unity. (1, 2 EI)

(4) If God is absolutely simple, then God is not an organic unity.

(5) Therefore, God is not absolutely simple. (3, 4 MT)

The main premise is (1). The defender of simplicity could argue backwards, inferring from God's simplicity that God is not an organic unity; because God is valuable, we have here a counterexample to (1). In that case, it must be asked which is more reasonable to believe, (1) or

(6) God is absolutely simple.

Having disarmed the other main argument in favor of (6) in the previous section, and having advanced other arguments against it (§2.2, §4.1.1), and finally, having referenced

[188] Ibid., p. 417.

an axiological framework in which to understand and assess value judgments, and hence, perfection rankings (unlike the defender of simplicity), there is no reason prefer (6) to (1).

I have said that dependence is central to this venerable framework of axiology; but as all of the examples indicate, it is really a kind of *interdependence*—which is precisely the distinguishing feature of the tripartite fundamental being of my proposal. If you prefer a cute name for this divine attribute, it would not be aseity, but triseity. How exactly the parts relate to each other and they to the whole that makes it valuable, much less supremely valuable (a unity of three self-consciousnesses?), is a topic for further reflection and exploration.[189] The present point, rather, is just that if we think of value rankings in terms of organic unity, the claim that dependence *per se* is an imperfection is quite groundless. Only a composite being exhibiting some special degree of organic unity could rank atop the axiological scale tracking ontological greatness, supremacy, and magnificence.

In conclusion, the chief argument for divine simplicity rests on an insufficiently nuanced concept of aseity. The tripartite being of my proposal is fully compatible with the richer concept of aseity that incorporates both its negative and positive conceptual cores. It also has the virtue of being compatible with perhaps the most venerable axiological framework that can inform and ground our intuitions about perfection. Finally,

[189] Would not four be even more valuable? Five? Infinity? The question of what constitutes maximal value, or what would be absolutely perfect, in this framework is an interesting one. Maybe there's a principled threshold beyond which no greater value is possible. One thinks of Richard of St. Victor's argument in this connection, where a familial bond between three persons is the highest kind of interpersonal value, beyond which no new kind of value can be added. But the overall point is, if we tether our intuitions about value—and hence perfection—to an axiological framework like this, only a certain kind of complex being, one that's an organic unity, can have value.

the tripartite being of my proposal, unlike a simple being, is not just compatible with the PSR, but is positively motivated by it.

5.6. Conclusion: Explaining Everything

"If everything has a cause, then what caused God?" So goes the facile objection to "the" cosmological argument that no philosopher of repute has ever defended. This fact has not deterred philosophical freshman and professional alike from triumphantly raising it, however, which has led more keen observers to label it "the straw man that will not die."[190] Amazingly, the straw man has been alive and well for more than a century. One finds Richard Clarke, for instance, complaining of it in his logic text from the 1880s! In all fairness, the beloved straw man may owe its endurance in part to the wide range of meanings the word 'cause' has had in metaphysics generally, and in cosmological arguments in particular. There are, of course, Aristotle's four causes, but it is also not uncommon to see any of them referred to as grounds or reasons, or seemingly interchangeable uses of the terms 'cause', 'ground' and 'reason'.[191]

This being the case, as Clarke goes on to clarify, the objector may be confusing the theist's appeal to a law of causality with a different law:

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[190] The label is Edward Feser's. Feser finds the objection on the lips of Bertrand Russell, Daniel Dennett, Robin Le Poidevin, Michael Martin, Simon Blackburn, and Graham Priest, among others, not to mention the many introductory texts and courses that repeat it. Feser was also my lead on the Clarke (1889) reference, cited henceforth.

[191] See Wuellner (1956), 17-21, 105-106 and Hocutt (1974). One example is Samuel Clarke who, while denying that God has a cause, predicates his cosmological argument on the observation that "Whatever exists has a cause, a reason, a ground of its existence, a foundation on which its existence relies, a ground or reason why it does exist rather than not exist" (D, 8). This ambiguity was responsible for much confusion and debate in the eighteenth century onward. See Gurr (1959) and Schopenhauer (F).

> This Law is sometimes stated in another form and invested with another name. It is sometimes called the *Law of Sufficient Reason*, and expressed in the formula: *Everything existing has a sufficient reason*, or, *Nothing exists without a sufficient reason*. The Law as thus formulated has a wider range than the Law of Causation. The Law of Causation is applicable only to things which are created, the Law of Sufficient Reason to God the Creator as well.[192]

Everything, including God. Thus, without something substantive to say about how God's existence is explained, the "What's God's explanation?" retort to PSR-based cosmological arguments will have all the force its straw man counterpart is commonly presumed to have. Proponents of PSR-based cosmological arguments therefore owe their interlocutors more than a superficial analysis of what it means for something to have its explanation in itself, and *much more* than a stock phrase of Scholastic provenance.

No doubt such an unrestricted PSR that gives rise to our question will strike many contemporary ears as unduly strong. Indeed, it often seems as if there's a running contest to see who can articulate the most modest PSR that still has extramundane implications.[193] But theists—in fact, philosophers in general—should not be so quick to distance themselves from the unrestricted PSR for several reasons.

In §1.1.1, I quoted Aristotle's famous passage form the *Metaphysics* about how philosophy begins in wonder—first about the "obvious difficulties," then, as explanations are found for them, for "greater matters" such as the origin of the universe itself. This quest for explanations of things doesn't diminish when applied to "greater matters"; it rather intensifies, whether you take the explanatory ultimate to be God or something else.

[192] Clarke (1889), p. 70.

[193] Be it restricted to just contingent beings, contingent truths or facts, dependent beings, or even possibly caused or possibly explicable beings. For a sampling of these arguments, see Gale and Pruss (1999), Rasmussen (2010), and Weaver (2016).

So it is not surprising to see, as is evident by the accounts surveyed here, something like the PSR motivating that quest. Contemporary philosophers should keep in mind that while appealing to some restricted PSR may have certain dialectical advantages, dressing modestly is only a virtue in public. It is the unrestricted PSR that drives naked rational inquiry.[194]

Furthermore, the most common arguments for the PSR—that it is a necessary presupposition of reason, that it is self-evident, that it is heretofore exceptionless, that denying it entails radical skepticism—are perfectly general, supporting not just some modest PSR, but an unrestricted PSR. Rejecting the PSR in its unrestricted form would force one to reconsider the soundness, or at least the formulations, of these arguments. Moreover, if any PSR is what gives purchase to Leibniz's question "Why is there something rather than nothing?", it is an unrestricted one. The question, after all, is not *Why is there something contingent rather than not?* The contrast is between nothing and, well, its opposite. Thus, interpreted *prima facie*, it is really a statement with an unrestricted universal quantifier: for any x, if x exists, there is a reason for x's existence. Being unrestricted, the scope will include contingent beings as well as everything else that exists.[195] In this way, the unrestricted PSR is actually *simpler* than a restricted one; the latter invites the additional question of why the scope is restricted to the specified domain. Those who prefer some restricted PSR will have to answer Schopenhauer's accusation of treating the need for explanation like a taxicab to hire and dismiss when it

[194] For a compelling presentation of this point, see Schopenhauer (F). I note that, amazingly, no contemporary discussion of the PSR, including Pruss's (2006) monograph, cites Schopenhauer.

[195] Some have thought there is a kind of "normalcy of nothingness", that there is nothing special about there being nothing that would cry out for explanation, unlike the existence of something. See Taylor (1992), pp. 100-103. If this is right, then we have another argument for the unrestricted PSR from the general contrast with nothing.

suits one's purposes.[196] Unlike a taxicab, the canonical, unrestricted PSR rides you to *its* destination, and *everything* goes for its ride.

But for the sake of the metaphysically bashful, let us set aside the PSR as a metaphysical principle. Just as a matter of good methodology of rational inquiry, positing something brute and inexplicable still carries a cost, which one may want to pay only as a last resort. We should push the chain of explanations as far as possible.

Although it is common to stop explanation at the foot of necessity, even this can be bad practice. A necessary being might well be a good ultimate explanation of the chain of contingent beings, but a chain of necessary beings will no less require ultimate explanation in something relevantly different. There is nothing about necessity just as such that is buck stopping, as made evident by the fact that attempts to explain various necessities are commonplace. Moral properties and truths, for example, are often thought to be necessary, yet they seem to positively cry out for explanation.[197] We recognize this even with respect to beings whose essence implies necessity. Certain abstract objects, such as numbers, are such that if they possibly exist, they necessarily exist. That is their nature. And yet, even if we infer from this *that* they exist, we recognize that explanations of *why* they exist are not thereby foreclosed. Do they exist in virtue of a certain function and properties, as Bob Hale has argued?[198] Are they, along with other *abstracta*, the byproduct of God's mental and causal activities, as many theists have contended?

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[196] See Gale and Pruss (1999), p. 469. They credit the objection to Arthur Schopenhaur. This is not to suggest there is some one correct interpretation of Leibniz's question. See Brenner (2016). But it is to suggest that we are justified in interpreting the scope of the Leibnizian question as including God.

[197] See Adams (1999) and Ganssle (2000).

[198] See Hale (2013), pp. 175ff.

The point is worth emphasizing, as it might be thought that the central problem with the accounts analyzed in chapter 2 is whether necessary existence is intelligible. Not only would that be to misunderstand those accounts, philosophers have to my mind shown the concept of necessary existence to be perfectly intelligible.[199]

The problem, rather, is whether there can be an explanation of something which exists *a se* (as opposed to *ab alio*), an explanation of something that doesn't answer to anything outside itself for its being. And it's hard to see how there can be, given precisely the structural features of explanation presupposed in arguments for a being that exists *a se*. As we've seen, all of the philosophers we looked at, among many others, offer variants of something like the following argument. No thing can bootstrap itself into being any more than something can come from nothing; beings have explanations (unrestricted PSR). But beings can't be explained by other beings "all the way down" in the manner of turtles. Nor can beings explain each other in a circle. The chain of beings explained by other beings must therefore be grounded by something whose explanation is in itself. QED. Note carefully how the structure of explanation here is assumed to form a strict order (it is irreflexive, asymmetric, and transitive). Yet when it comes to explaining the being that exists *a se*, all the accounts we looked at renege on this assumption. The E = ∃ thesis seems to require God's explanation be reflexive. Anselm's mutual relations between *essence*, *to be*, and *being* seem to require explanation be symmetric, as does Leibniz's E ⇔ ∃ thesis. But if we reject reflexive (bootstrapping) and symmetric (circular) explanations when explaining beings which exist *ab alio*, why accept them when explaining a being which exists *a se*?

[199] See Plantinga (1974) and Pruss and Rasmussen (2018).

While we should respect *as much as possible* the structural features of explanation presupposed in such arguments for a being that exists *a se*, it does seem that something's got to bend with respect to the being itself. I have argued that it is asymmetry, since there are plausible cases of symmetric ground between three (or more) things. Granted, my proposal may seem strange. But we would do well to appreciate Robert Nozick's point that the Leibnizian question—Why is there something rather than nothing?—"cuts so deep that any approach that stands a chance of yielding an answer will look extremely weird."[200] He continues: "Someone who proposes a non-strange answer shows he didn't understand this question. Since the question is not to be rejected, though, we must be prepared to accept strangeness or apparent craziness in a theory that answers it."[201] So there is reason to expect that any proposal whose aim is to explain what is absolutely fundamental will have some degree of apparent strangeness.

But is my proposal really so strange? If for something to have its explanation in itself it must have a certain internal structure, as I've argued, we can eliminate things which do not have that structure as candidates for playing the requisite explanatory role in our cosmological reasoning, be they the universe, fundamental particles, or rivaling concepts of God. Neither the universe nor fundamental particles seem to fit the requisite profile, since what we're led to is just one absolutely fundamental being, and that being is tripartite. Now, it just so happens that the most widely-held version of theism has it that there is just one God, and that God is triune. My proposal, therefore, will appear strange only to those apt to see this as metaphysical coincidence.

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[200] Nozick (1981), p. 116.

[201] Ibid.

BIBLIOGRAPHY

Adams, R. (1994). *Leibniz: Determinist, Theist, Idealist*. Oxford University Press.

Adams, R. (1999) *Finite and Infinite Goods: A Framework for Ethics*. Oxford University Press).

Anselm. (M). *Monologium*. In *St. Anselm: Basic Writings: Proslogion, Monologion, Cur Deus Homo, Gaunilo's In Behalf of the Fool.* S. N. Deane (trans.). Open Court, 1988.

Aristotle (A). *The Complete Works of Aristotle.* Ed. Jonathan Barnes. Vol. 2. Princeton University Press, 1984.

Antognozza, M. R. (2007). *Leibniz on the Trinity and Incarnation: Reason and Revelation in the Seventeenth Century*. Yale University Press.

Arp, R. (2016). *Revisiting Aquinas' Proofs for the Existence of God.* Brill.

Aquinas. (OBE). *On Being and Essence*. The Pontifical Institute of Medieval Studies, 1968.

Aquinas. (ST). *Summa Theologica*. Complete English Edition in Five Volumes, Fathers of the English Dominican Province (trans.), Vol. I. Christian Classics.

Aquinas. (SCG). *Summa Contra Gentiles: Book One: God*. Tr., with introduction and notes, by A.C. Pegis. University of Notre Dame Press, 1975.

Audi, P. (2012a). "Grounding: Toward a Theory of the In-Virtue-of Relation." *Journal of Philosophy*, 109 (12): 685–711.

Barnes, E. (2018). "Symmetric Dependence." In Bliss and Priest (eds.), *Reality and Its Structure: Essays in Fundamentality (pp. 50-69).* Oxford University Press.

Bennett, K. (2017). *Making Things Up*. Oxford University Press.

Berkhof, L. (2017). Systematic Theology. GLH Publishing Reprint.

Bliss, R. (2011). *Against Metaphysical Foundationalism*. PhD Thesis, University of Melbourne.

Bliss, R. (2013). "Viciousness and the Structure of reality." *Philosophical Studies* 166 (2): 399-418.

Bliss, R. (2014). "Viciousness and Circles of Ground." *Metaphilosophy* 45 (2): 245-256.

Bliss, R. (MS). "Metaphysical Foundationalism and the Principle of Sufficient Reason."

Brenner, A. (2016). "What Do We Mean When We Ask 'Why is There Something Rather Than Nothing?" *Erkenntnis* 81 (6): 1305-1322.

Brower, J. (2009). "Simplicity and Aseity." In T. Flint and M. Rea (eds.), *The Oxford Handbook of Philosophical Theology* (pp. 105-128). Oxford University Press.

Brown, P. (1976). "Infinite Causal Regression." In Kenny (ed.), *Aquinas: A Collection of Critical Essays* (p. 214-236). Notre Dame Press.

Burnes, R. (1989). "The Divine Simplicity in St. Thomas." *Religious Studies* 25 (3): 271-293.

Cameron, R. (2008). "Turtles all the Way Down: Regress, Priority and Fundamentality." *Philosophical Quarterly* 58 (230): 1-14.

Christofidou, A. (2013). *Self, Reason, and Freedom: New Light on Descartes' Metaphysics*. Routledge.

Clark, M. and Liggins, D. (2012). "Recent Work on Grounding." *Analysis* 72 (4): 812-823.

Clarke, Samuel (D). *A Demonstration of the Being and Attributes of God and Other Writings*. Ed. Ezio Vailati. Cambridge, 1998.

Clarke, R. F. (1889). *Logic*. Benzinger Brothers

Clatterbaugh, K. (1999). *The Causation Debate in Modern Philosophy 1637-1739*. Routledge.

Copleston, F. (1946). *History of Philosophy* Vol. I. Doubleday.

Copleston, F. (1950). *History of Philosophy* Vol. II. Doubleday.

Copleston, F. (1955). *Aquinas*. Penguin Books.

Correia, F. and Schnieder, B. (2012). "Grounding: An Opinionated Introduction." In Correia and Schnieder (eds.), *Metaphysical Grounding: Understanding the Structure of Reality* (pp. 1-36). Cambridge University Press.

Cottrell, J. (2003). *The Faith Once for All*. College Press Publishing Company.

Craig, W. L. (1980). *The Cosmological Argument from Plato to Leibniz*. Wipf & Stock.

Craig, W. L. (2017). *God and Abstract Objects: The Coherence of Theism: Aseity*. Springer.

Cross, R. (2005). *Duns Scotus on God*. Ashgate.

Dasgupta, S. (2016). "Metaphysical Rationalism." *Noûs* 50 (2): 379-418.

Davis, S. T. (1999). "The Cosmological Argument and the Epistemic Status of Belief in God." *Philosophia Christi* 1 (1): 5-15.

Della Rocca, M. (2008). *Spinoza*. Routledge.

Della Rocca, M. (2010). "PSR." *Philosopher's Imprint* 10 (7): 1-13.

Descartes (HR I). *The Philosophical Works of Descartes* Vol. I, Elizabeth Haldane and G. R. T. Ross, translators. Cambridge, rep. 1979.

Descartes (HR II). *The Philosophical Works of Descartes* Vol. II, Elizabeth Haldane and G. R. T. Ross, translators. Cambridge, rep. 1979.

Descartes (CSMK). *The Philosophical Writings of Descartes* Vol. III: The Correspondence, J. Cottingham, R. Stoothoff, D. Murdoch, A. Kenny, translators Cambridge, 1991.

deRosset, L. (2013). "Grounding Explanations." *Philosopher's Imprint* 13 (7): 1-26.

Feser, E. (2009). *Aquinas*. Oneworld.

Feser, E. (2014). *Scholastic Metaphysics*. Editiones Scholasticae: Transaction Books.

Feser, E. (2017). *Five Proofs of the Existence of God.* San Francisco: Ignatius Press.

Fine, Kit (1994). "Senses of Essence." In Walter Sinnott-Armstrong, et al. (eds.), *Modality, Morality and Belief: Essays in Honor of Ruth Barcan Marcus*. Cambridge University Press.

Fine, Kit (1995). "Ontological Dependence." *Proceedings of the Aristotelian Society* 95: 269-290.

Fine, K. (2001). "The Question of Realism." *Philosopher's Imprint* 1 (1): 1-30.

Fine, K. (2010). "Towards a Theory of Part." *Journal of Philosophy* 107 (11): 559-589.

Fine, K. (2012a). "Guide to Ground." In Correia and Schnieder (eds.), *Metaphysical Grounding: Understanding the Structure of Reality* (pp. 37-80). Cambridge University Press.

Fine, K. (2012b). "The Pure Logic of Ground." *Review of Symbolic Logic* 5: 1-25.

Flage, D. and Bonnen, C. (1997). "Descartes on Causation." *The Review of Metaphysics* 50 (4): 841-872.

Forsyth, T. M. (1972). "Spinoza's Doctrine of God." In S. Paul Kashap (ed.), *Studies in Spinoza: Critical and Interpretive Essays* (pp. 3-15). University of California Press.

Franks, P. (2005). *All or Nothing: Systematicity, Transcendental Arguments, and Skepticism in German Idealism*. Harvard University Press.

Gale, R. (1991). *On the Nature and Existence of God*. Cambridge University Press.

Gale, R. and Pruss, A. (1999). "A New Cosmological Argument." *Religious Studies* 35: 461-476.

Ganssle, G. (2000). "Necessary Moral Truths and the Need for Explanation." *Philosophia Christi* 2 (1): 105-112.

Garber, D. (2015). "Superheros in the History of Philosophy: Spinoza, Super-Rationalist." *Journal of the History of Philosophy* 53 (3): 507-521.

Gurr, J. E. (1959). *The Principle of Sufficient Reason in Some Scholastic Systems: 1750-1900*. The Marquette University Press.

Gilson, E. (1937). *The Philosophy of St. Thomas Aquinas*. Trans. Edward Bullough. Rep. 1971. Books for Libraries Press.

Glazier, M. (2020). "Explanation." In Raven (ed.), *The Routledge Handbook of Metaphysical Grounding* (pp. 121-132). Routledge.

Gratton, C. (2010). *Infinite Regress Arguments*. Springer.

Guigon, G. (2015). "A Universe of Explanations." In Bennett and Zimmerman (eds.), *Oxford Studies in Metaphysics*, Vol. 9 (pp. 345-375). Oxford University Press.

Hale, B. (2013). *Necessary Beings*. Oxford University Press.

Hiller, A. (2013). "Object-Dependence." *Essays in Philosophy* 14 (1): 33-55.

Hocutt, M. (1974). "Aristotle's Four Becauses." *Philosophy* 49: 385-399.

Hughes, C. (1989). *A Complex Theory of a Simple God*. Cornell University Press.

Hynes, D. (2010). “Descartes’ Ontological Proof: Cause and Divine Perfection.” *Analecta Hermeneutica* 2: 1-24.

Jenkins, C. S. (2011). “Is Metaphysical Dependence Irreflexive?” *The Monist* 94 (2): 267-276.

Kenny, A. (2004). *A New History of Western Philosophy Vol. 1: Ancient Philosophy*. Oxford University Press.

Kerr, G. (2012). “Essentially Ordered Series Reconsidered.” *American Catholic Philosophical Quarterly* 86 (4): 541-555.

Kerr, G. (2015). *Aquinas's Way to God: The Proof in* De Ente et Essentia. Oxford University Press.

Kim, Jaegwon (1994). “Explanatory Knowledge and Metaphysical Dependence.” *Philosophical Issues*, 5: 51–69.

Kleinschmidt, S. (2015). “Fundamentality and Time-Travel.” *Thought* 4: 46-51.

Koons, R. (1997). “A New Look at the Cosmological Argument.” *American Philosophical Quarterly* 34 (2): 193-211.

Koons, R. and Pruss, A. (2020). “Skepticism and the Principle of Sufficient Reason.” *Philosophical Studies* (forthcoming).

Koons, R. (MS). “Quantum Hylomorphism I: A Hylomorphic Interpretation of Quantum Mechanics.”

Koslicki, K. (2012). “Varieties of Ontological Deopendence.” In Correia and Schnieder (eds.), *Metaphysical Grounding: Understanding the Structure of Reality* (pp. 186-213). Cambridge University Press.

Kovacs, D. M. (2018). “What is Wrong with Self-Grounding?” *Erkenntnis* 86 (6): 1157-1180.

Kretzmann, N. (1999). *The Metaphysics of Creation: Thomas Aquinas’s Natural Theology in* Summa Contra Gentiles II. Oxford University Press.

Kripke, S. (1971). “Identity and Necessity.” In M. Munitz (ed.), *Identity and Individuation* (pp. 135-164). New York University Press.

Lee, R. (2006). “The Scholastic Resources on Descartes’ Concept of God as *Causa Sui*.” In Garber & Nadler (eds.), *Oxford Studies in Early Modern Philosophy*, *Vol*. 3 (pp. 91-118). Oxford University Press.

Leftow, B. (2003). “On a Principle of Sufficient Reason.” *Religious Studies* 39 (3): 269-286.

Leibniz, Gottfried Wilhelm (G). *Die Philosophischen Schriften von Gottfried Wilhelm Leibniz*. Ed. C. I. Gerhardt. Berlin.

Leibniz, Gottfried Wilhelm (Grau). *Textes inedits d’apres de la bibliotheque provincial de Hanovre*. Ed. G. Grua. 2 Vols. Paris.

Leibniz, Gottfried Wilhelm (L). *Philosophical Papers and Letters*. Trans. L. Loemker. 2nd ed. Dordrecht.

Leibniz, Gottfried Wilhelm (AG). *Philosophical Essays*. Roger Ariew and Daniel Garber (trans. and ed.), Indianapolis: Hackett, 1989.

Levey, Samuel (2016). “The Paradox of Sufficient Reason.” *The Philosophical Review* 125 (3): 397-430.

Lewis, D. (1983). “Extrinsic Properties.” *Philosophical Studies* 44 (2): 197-200.

Lewis, D. and Langton, R. (1998). "Defining 'Intrinsic.'" *Philosophy and Phenomenological Research* 58 (2): 333-345.

Lovejoy, A. (1936). *The Great Chain of Being*. Harvard University Press.

MacDonald, S. (1991a). "Aquinas' Parasitic Cosmological Argument." *Medieval Philosophy and Theology* 1: 119-155.

MacDonald, S. (1991b). *Being and Goodness: The Concept of the Good in Metaphysics and Philosophical Theology*. Cornell University Press.

Manata, P. (2017). "The Conversational Theory of Moral Responsibility and McKenna's Interdependence Thesis." *The Philosophical Quarterly* 67 (266): 61-83.

Mann, W. (1983). "Simplicity and Immutability in God." *International Philosophical Quarterly* 23 (3): 267-276.

Mates, B. (1986). *The Philosophy of Leibniz*. Oxford University Press.

McBrayer, L. (2018). "Cartesian Aseity in the Third Meditation." *Journal of Analytic Theology* 6: 217-233.

McIntosh, C. A. (2014a). Review of Brian Leftow, *God and Necessity*. *Philosophy in Review* 34 (3-4): 142-146.

McIntosh, C. A. (2014b). Review of William Hasker, *Metaphysics and the Tri-Personal God*. *Philosophy in Review* 34 (6): 309-311.

McIntosh, C. A. (2019). Review of William Craig, *God Over All* and *God and Abstract Objects*. *Philosophy in Review* 39 (2): 61-65.

McKenna, M. (2012). *Conversation and Moral Responsibility*. Oxford University Press.

Melamed, Y. (2016). "Principle of Sufficient Reason." *Stanford Encyclopedia of Philosophy*.

Morganti, M. (2019). “Quantum Entanglement: A Hylomorphic Account.” *Synthese* (forthcoming).

Morreall, J. (1984). “The Aseity of God in St. Anselm.” *Sophia* 23 (3): 35-44.

Nozick, R. (1981). *Philosophical Explanations*. Harvard University Press.

Pearce, K. (2017). “Foundational Grounding and the Argument from Contingency.” In Kvanvig (ed.), *Oxford Studies in Philosophy of Religion*, Vol. 8 (pp. 245-268). Oxford University Press.

Penelhum, T. (1960). “Divine Necessity.” *Mind* 69 (274): 175-186.

Plantinga, A. (1974). *The Nature of Necessity*. Oxford University Press.

Plato (P). *Plato: Complete Works*. Ed., John M. Cooper. Hackett.

Prestige, G. L. (1975). God in Patristic Thought. S.P.C.K.

Priest, G. (2014). *One: Being an Investigation Into the Unity of Reality and of its Parts, Including the Singular Object Which is Nothingness*. Oxford University Press.

Pruss, A. (2006). *The Principle of Sufficient Reason: A Reassessment*. Cambridge University Press.

Pruss, A. (2009). “The Leibnizian Cosmological Argument.” In Craig and Moreland (eds.), *The Blackwell Companion to Natural Theology* (pp. 24-100). Blackwell Publishing.

Pruss, A. and Rasmussen, J. (2018). *Necessary Existence*. Oxford University Press.

Rasmussen, J. (2010). “From States of Affairs to a Necessary Being.” *Philosophical Studies* 148: 183-200.

Reichenbach, B. (1972). *The Cosmological Argument*. Charles C. Thomas.

Rodriguez-Pereyra, G. (2005). “Why Truthmakers?” In Beebee and Dodd (eds.), *Truthmakers: The Contemporary Debate* (pp. 17-32). Oxford University Press.

Rodriguez-Pereyra, G. (2015). “Ground is not a Strict Order.” *Journal of the American Philosophical Association* 1 (3): 517-534.

Rosen, G. (2010). “Metaphysical Dependence: Grounding and Reduction.” In Hale and Hoffman (eds.), *Modality, Metaphysics, Logic, and Epistemology* (pp. 109-136). Oxford University Press.

Rowe, W. (1975). *The Cosmological Argument*. Princeton University Press.

Ruben, D-H. (1990). *Explaining Explanation*. Routledge.

Schaffer, J. (2009). “On What Grounds What.” In Chalmers, et al. (eds.), *Metametaphysics: New Essays on the Foundations of Ontology* (pp. 347-383). Oxford University Press.

Schaffer, J. (2010). “Monism: The Priority of the Whole.” *Philosophical Review* 119 (1): 31-76.

Schaffer, J. (2012). “Grounding, Transitivity, and Contrastivity.” In Correia and Schnieder (eds.), *Metaphysical Grounding: Understanding the Structure of Reality* (pp. 122-138). Cambridge University Press.

Schnieder, B. and Steinberg, A. (2015). “Without Reason?” *Pacific Philosophical Quarterly* 97 (4): 523-541.

Schopenhauer, A. (F). *On the Fourfold Root of the Principle of Sufficient Reason*. Open Court, rep. 1974.

Scruton, R. (1986). *Spinoza*. Oxford University Press.

Secada, J. (2000). *Cartesian Metaphysics: The Late Scholastic Origins of modern Philosophy*. Cambridge.

Siegel, E. (2019). "Can Free Quarks Exist Outside of a Bound-State Particle?" *Forbes* <https://www.forbes.com/sites/startswithabang/2019/08/03/ask-ethan-can-free-quarks-exist-outside-of-a-bound-state-particle/#3d6a2a5c37e6>

Simons, P. (1987). *Parts: A Study in Ontology*. Oxford University Press.

Smith, A. D. (2014). *Anselm's Other Argument*. Harvard University Press.

Spinoza (E). *Spinoza: Complete Works*, trans. Samuel Shirley, ed. Michael Morgan. Indianapolis: Hackett.

Swinburne, R. (2004). *The Existence of God*. Oxford University Press, 2nd ed.

Tahko, T. (2018). "Fundamentality", *The Stanford Encyclopedia of Philosophy* (Fall 2018 Edition), Edward N. Zalta (ed.), URL = <https://plato.stanford.edu/archives/fall2018/entries/fundamentality/>.

Taylor, R. (1992). *Metaphysics*. 4th ed. Prentice-Hall.

Tennant, N. (1997). "On the Necessary Existence of Numbers." *Nous* 31 (3): 307-336.

Thompson, N. (2014). *Structuring Reality*. PhD Thesis, University of Birmingham.

Thompson, N. (2016). "Metaphysical Interdependence." In Mark Jago (ed.), *Reality Making* (pp. 38-56). Oxford University Press.

Trogdon, K. (2013). "An Introduction to Grounding" in Hoeltje et al. (eds.), *Varieties of Dependence* (pp. 97-122). Philosophia Verlag.

Vallicella, W.F. (1997). "On an Insufficient Argument Against Sufficient Reason." *Ratio* 10: 76-81.

van Inwagen, P. (1983). *An Essay on Free Will*. Oxford University Press.

Weaver, C. G. (2016). “Yet Another New Cosmological Argument.” *International Journal for Philosophy of Religion* 80: 11-31.

Wolfson, H. (1934). *The Philosophy of Spinoza* Vol. I. Harvard University Press.

Wuellner, B. (1956). *Dictionary of Scholastic Philosophy*. Bruce Publishing Co.