This is the author's original version (AOV) of an article the final version of which was published in *The Philosophical Quarterly*, Volume 70, Issue 279, April 2020, Pages 350–370, https://doi.org/10.1093/pq/pqz056.

The Logic of Leibniz's Borrowed Reality Argument

Stephen Puryear
North Carolina State University
smpuryear@ncsu.edu

1. Introduction

In Section 2 of the *Monadology*, Leibniz offers a deceptively simple argument for simples: "And there must be simple substances, since there are composites; for the composite is nothing but a collection [*amas*] or *aggregate* of simples" (M 2). As it stands, the argument is wholly unconvincing. No one who does not already accept the conclusion would deny that there are composites. But why should we go along with the claim that composites are aggregates of *simples*, that is, beings without parts? Could composites not instead be divided into parts *ad infinitum*, so that every composite is an aggregate of still smaller composites? Indeed, is that not precisely Leibniz's position? Why, then, the need for simples? In the *Monadology*, at least, Leibniz offers no real answer to this question.

At this point some commentators attempt to shore up Leibniz's reasoning by drawing on the additional resources of what appears to be a more substantive version of the same argument. According to this more substantive line of thought, composites have a reality that they borrow or derive from their constituents. But not all reality can be borrowed. Hence, composites must ultimately borrow their reality from things that have their reality in themselves. Further, since all composites are reality borrowers, these *per se* realities must be non-composite, that is, simple. So, simples exist. This *borrowed reality argument*, as it has come to be known, has a good claim to being Leibniz's main argument for the existence of a fundamental level of simple substances.[1]

My aim in what follows is to clarify the underlying logic of this argument. In particular, I will be concerned with understanding Leibniz's rationale for the crucial premise that not all reality can be borrowed, a rationale that I believe has been missed both by Leibniz scholars and by

[1] The name appears to originate with Levey (2007), who also calls it the "derived-reality argument" (2003: 261). Others have called this general line of thought the "aggregate argument" (Garber 2009: 74–76, 88–89) and the "presupposition argument" (Arthur 2011: 100–1). For discussions of other possible arguments for simples in Leibniz, see Levey (2007; 2008; 2012) along with the responses of Rutherford (2008b) and Doggett (2010).

contemporary metaphysicians who have invoked his borrowed reality argument in recent discussions of the doctrine of metaphysical foundationalism.[2] In §2, I set the stage by further clarifying the argument. In §3, I argue that the (fairly meager) literature on this topic offers no plausible candidates for Leibniz's rationale for the premise that not all reality can be borrowed. In §4, I then propose and argue for a new rationale, which I call the *phenomenalist rationale*. It turns on two key ideas: first, that composites, or reality borrowers, are phenomena, and second, that phenomena can be real only if they have a foundation in non-phenomenal (and thus simple) entities, from which they directly borrow their reality. Finally, in §5 I push the analysis a step further by exploring Leibniz's main argument for the premise that composites are phenomena, an argument which, I contend, turns on his doctrine of the ideality of relations. I thus hope to cast new light on why Leibniz thought there must be a fundamental level of simple substances and in the process to clarify the key premises on which that argument hinges.

2. The Borrowed Reality Argument

Before diving into the argument, a word about the texts. The borrowed reality argument can be found in one form or another in various writings from throughout Leibniz's mature period, which is usually thought to begin around the mid-1680s. It makes its first known appearance in a draft of a letter to Arnauld composed in 1686 (A 2.2:114–15), and subsequently appears in a letter to Arnauld from the following year (A 2.2:169) and in the essay *New System of the Nature of Substances and Their Communication* (GP 4:478–79/AG 139), which Leibniz published in the *Journal des Savants* in 1695; it also appears to be at least adumbrated in a letter to Bayle probably written in 1702 (GP 3:69/WF 129–30). But undoubtedly the fullest and most perspicuous statements of the argument are to be found in a pair of letters to the Dutch natural philosopher Burcher De Volder written in 1704. Now, my aim here is to clarify the logic of this argument, not to offer an account of its origin or development. So I will not be undertaking a detailed comparison of the earlier and later versions. Instead, I will focus almost exclusively on the two De Volder texts, which, following Levey (2012: 128), I take to be the canonical statements. I do think the interpretation I will be proposing is compatible with the earlier statements, but I will not undertake to argue for that here. My hands will be full enough as it is.

Let us begin with the first of the De Volder texts, from a letter dated 21 January 1704:

[2] For discussions of Leibniz's argument in the recent metaphysics literature, see Cameron (2008), Robb (2009), Schaffer (2010), Bliss (2013), Morganti (2015), Schaffer (2016), and Trogdon (2018).

> I had undertaken to prove that these things exist from the fact that otherwise there would be nothing in bodies. I thus offered the following: *First*, things that can be divided into many are constituted or aggregated from many. Then, *second*, things that are aggregated from many are not one thing except from a mind, and they have no reality except that which is borrowed, i.e., that is from the things from which they are aggregated. Therefore, *third*, things that can be divided into parts have no reality unless there are things in them that cannot be divided into parts. Indeed they have no other reality than that which is from the Unities that are in them. (GP 2:261/LDV 285–87)[3]

Leibniz helpfully breaks his argument into three steps. (1) What can be divided into parts is constituted or aggregated from many things. In other words, what *can* be divided into parts actually *does* have parts.[4] (2) What is aggregated from many things has no reality except that which it borrows from its parts or constituents. Therefore, (3) What can be divided into parts has no reality unless there are things within it that cannot be divided into parts. In other words, aggregates have no reality unless they contain indivisible unities. To get to the conclusion that these unities exist, we need only one other premise, which Leibniz does not mention: that is, that there are real aggregates (cf. Rutherford 1990a: 536; 2009: 43–44)

So stated, it is unclear exactly how the argument is supposed to work. The glaring gap is the move from (1) and (2) to (3). Suppose we grant that aggregates have no reality except that which they borrow from their parts or constituents. Why would this entail that aggregates have no reality unless there are indivisible unities within them?

Leibniz answers this question in his second presentation of the argument to De Volder, in a letter written just a few months later (30 June 1704). In response to De Volder's objection that he has failed to show that mathematical body lacks reality, Leibniz attempts to clarify his borrowed reality argument:

> To this I respond first by repeating my argument more distinctly as follows: Anything that can be divided into many (actually already existing) things is aggregated from many things, and anything that is aggregated from many things is not one except from a mind, and has no reality except what has been borrowed from what it contains. I then inferred from this that, therefore, there are indivisible unities in things, because otherwise there will be no true unity in things and no reality not borrowed, which is absurd. For

[3] All translations in this paper are my own.

[4] In a later letters to De Volder, Leibniz emphasizes that in actual things the parts are prior to the whole, so that actual things are already divided in whatever ways they can be divided (GP 2:276/LDV 321; GP 2:282/LDV 333).

> where there is no true unity there is no true multitude. And where there is no reality except what is borrowed, there will never be any reality, since it must ultimately be proper to some subject. (GP 2:267/LDV 301)

All the points from before are repeated here, but with helpful elaboration. Leibniz tells us that what borrows its reality from other things must contain indivisible unities, because otherwise there will be "no reality that is not borrowed, which is absurd." So, why do divisible things presuppose indivisible unities? The answer is this. Divisible things, that is, aggregates, borrow their reality from what they contain. But all borrowed reality must ultimately be borrowed from some unborrowed reality, on pain of absurdity. Since all divisible things are reality borrowers, that which does not borrow its reality must be indivisible. Hence, real divisibles must contain indivisible unities.

The attentive reader will have noticed that this argument appears to have a more modest conclusion than the one Leibniz gives in the later *Monadology*. As Levey (2007: 68; 2012: 111–12) has emphasized, it seems to establish only the existence of *indivisible* unities, not *simple* unities, thus leaving open the possibility that these unities might involve or contain parts, and hence be in a sense composite, without being divisible into parts. It might therefore seem to be of limited value for understanding the *Monadology* argument. On closer inspection, however, it's evident that Leibniz views the argument he puts to De Volder as establishing the stronger conclusion that there must be simple substances, that is, monads. In the first place, in a letter to Johann Bernoulli, the mediator of the correspondence, dated the day after the letter just quoted (1 July 1704), Leibniz explicitly characterizes his argument as an argument for the conclusion that aggregates must derive their reality from simples: "I have employed three or four arguments more than once to which [De Volder] has never responded directly, namely *that all the reality of aggregates consists in simple things* …" (LDV 311). Second, in the first of the quoted passages, Leibniz begins by saying, "I had undertaken to prove that these things [*has*] exist from the fact that otherwise there would be nothing in bodies." But 'these things' refers back to the previous paragraph, where the announced topic is monads ("We should see whether anything can be settled between us about Monads" [GP 2:261/LDV 285]), which he also calls "my Unities" (cf. GP 2:277/LDV 323: "my unities, i.e., simple substances"). Then just a few lines after the quoted passage, and still in the same paragraph, he adds that bodies are only real phenomena and that "A monad alone is a substance" (GP 2:262/LDV 287; cf. GP 2:270/LDV 307). Evidently what he thinks he has shown to be "in bodies" are monads, that is, simple substances. Finally, it should be noted that in his correspondence with De Volder, Leibniz characterizes the categories of aggregate and simple

substance as both mutually exclusive and jointly exhaustive: no aggregate is a simple substance (GP 2:256/LDV 275), and there is no tertium quid ("since only simple things are true things, the rest are only Beings by aggregation, and are thus phenomena …" [GP 2:252/LDV 265]; "there can be nothing real in nature except simple substances and the aggregates resulting from them" [GP 2:282/LDV 331–33]). At least in the context of this correspondence, then, he appears to be treating 'aggregate' as equivalent to 'non-simple' and thus 'composite', which makes the monad/aggregate distinction equivalent to the simple/composite distinction. In arguing that aggregates must contain non-aggregates, therefore, Leibniz is in fact arguing that composites must contain simples.[5]

What, then, about corporeal substances, or animals, that is, those composites of substantial form and (secondary) matter that "the monad dominating in the machine makes one" (GP 2:252/LDV 265)? Where do they fit in this picture? One possibility is that in the final analysis Leibniz considers them to be aggregates, and thus phenomena, and hence substances in name alone. The other possibility is that he numbers them among simple substances, or monads. This last view is not without evidence. In a letter to Bernoulli from 1698, Leibniz seems to suggest that the parts of an animal's body are not parts of the animal itself (LDV 9/AG 167). So a corporeal substance may lack parts, and thus satisfy the definition of a simple substance (cf. GP 2:239/LDV 239), even though one of its constituents—its body—has parts. Further, in another letter to Bernoulli written shortly thereafter, Leibniz even calls the corporeal substance a "complete monad" (AG 168; cf. Phemister 2005: 72–76). For my purposes, however, it will not be necessary to pick a side on this issue. I am concerned to understand Leibniz's argument for simples. Nothing I say will be affected by whether those simples turn out to include corporeal substances or just purely immaterial, soul-like substances.

Taking all this into account, Leibniz's argument from composites to simples can now be stated more fully as follows:

1. There are real composites.
2. All real composites borrow their reality from their (real) constituents.
3. Not all reality can be borrowed.

---

[5] Leibniz appears to have the borrowed reality argument in mind, and characterizes it as an argument for simples, in a letter to Bayle probably written in 1702: "there must be simple beings, otherwise there would be no composite beings or beings by aggregation, which are phenomena rather than substances, and exist by convention [*νόμῳ*] rather than by nature [*φύσει*] (that is, morally or rationally rather than physically), to speak with Democritus. And if there were no change in simple things, neither would there be any in composite things, the reality of which consists entirely in that of simple things" (GP 3:69/WF 129–30).

4. Only simples have unborrowed reality. (from 2)
5. Real composites have simple constituents. (from 2, 3, 4)
6. Thus, simples exist. (from 1, 5)

Some general comments on the argument. First, all the inferences are valid. If all real composites must borrow their reality, then only simples (i.e., non-composites) can have unborrowed reality. So (4) follows from (2). Further, (2), (3), and (4) jointly entail (5). Finally, given the (self-evident) principle that a composite of *F*s exists only if the *F*s, its constituents, exist, (6) follows from (1) and (5). The argument's success therefore hinges on the plausibility of its underived premises: namely, (1), (2), and (3).

Of these, (3) is clearly the crux of the argument. Leibniz offers little argument for (1) or (2), but neither seems particularly controversial. Presumably no one who does not already accept the conclusion would deny (1), the claim that there are real composites. Further, there does not seem to be anything particularly objectionable in the thought that a real composite "borrows" or "derives" its reality from its constituents at least in the minimal sense that it has a reality which it possesses in virtue of the fact that its constituents are real. If this is all that is meant by the claim that real composites borrow their reality from their constituents, then (2) should also be relatively uncontroversial.[6] With (3), however, matters are not so straightforward. Why should we grant that all borrowed reality ultimately derives from unborrowed reality? The answer is far from obvious, and indeed this question will occupy us for the remainder of the essay.

3. Borrowed Reality, Vicious Regresses, and the Principle of Sufficient Reason

Leibniz unfortunately gives us little clue as to why he thinks that borrowed reality must ultimately come from unborrowed reality. In the second De Volder passage, he does say that "where there is no reality except what is borrowed, there will never be any reality, since it must ultimately be proper to some subject" (GP 2:267/LDV 301). But this offers no real insight. To be proper to some subject is evidently to belong to that subject in itself and not to be borrowed from something else. But then Leibniz's point here is just that if all reality were borrowed, there would be no reality at all, because borrowed reality must ultimately be derived from unborrowed reality. In effect, this is only a restatement of (3), not a justification for it.

Let us try another tack. On the basis of Leibniz's claim that it is absurd for all reality to be borrowed, some commentators have suggested that his rationale for premise (3) rests on the thought that an unending regress of

[6] "Priority monists" such as Schaffer (2010) will of course reject this premise, since on their view any reality borrowing would run in the other direction.

reality borrowers is in some way vicious or incoherent. For instance, Robert Adams (1994: 335) says of Leibniz:

> His reasoning, presumably, is that the infinite regress of parts composed of parts composed of parts and so on is vicious because it is an infinite regress of things that get their reality from their parts, which get their reality from their parts, which get their reality from their parts, and so on. As all the links in the chain possess only derivative reality, one will never arrive, in such a regress, at anything that has reality in itself, or that has "a reality not borrowed," as Leibniz puts it to De Volder in 1704 […].

Levey (2012: 108; cf. 104) speaks in similar terms and even goes so far as to suggest that with premise (3) Leibniz is "denying the coherence of the unending regress." Likewise, Rutherford (2009: 42) claims that Leibniz "blocks" these regresses, while others attribute to him the view that such regresses "must come to an end" (Lodge, LDV lxxxi), must terminate (Bliss 2013: 406), and "cannot go on forever" (Holden 2004: 28, 35–36, 133, 169–70; Strickland 2014: 43).

At first blush these remarks may suggest the view that a regress of reality borrowers must terminate within a *finite* number of steps. But of course that can't be right, at least not as an interpretation of Leibniz. For he holds that all bodies are actually divided into smaller and smaller bodies *ad infinitum*, and since these bodies borrow their reality from their parts, it straightforwardly follows that there are actually infinite regresses of reality borrowers. Far from rejecting such regresses, he embraces them.

A less obviously false thought is that Leibniz objects not to infinite but to *non-terminating* regresses of reality borrowers—that is, regresses that fail to terminate, at least within an infinite number of steps. Although it's unclear whether any of the commentators quoted above have this sort of thing in mind, such a view has been put forward in the recent literature on grounding, namely by Rabin and Rabern (2016: 363): "The problem with infinite chains of ground is not that they're infinite. The problem arises only when they have no end (or limit). Being must originate from some ultimate source: the fundamental. It matters not that being is transferred from the fundamental to the non-fundamental via infinitely many steps."[7] Perhaps Leibniz has something similar in mind when he asserts that it would be absurd for all reality to be borrowed.

Although this line of thought does at least square with Leibniz's belief in infinitely divided matter, it nonetheless faces two difficulties, one textual, the other conceptual. The textual difficulty is that it sorts ill with various positions he takes in other contexts. For one thing, in his

[7] On the idea of infinite but terminating regresses of grounding or ontological dependence, see also Holden (2004: 185–90), Cameron (2008: 4), Bliss (2013: 416), and Morganti (2015: 556).

discussions of infinite numerical series he denies the coherence of the idea of a last or "infinitieth" term, which suggests that he would likewise consider it incoherent to suppose that an infinite borrowing regress has a last or terminal element.[8] Further, he maintains that the analysis of a contingent truth into more and more primitive truths goes to infinity, but not that it terminates. Thus: "the resolution proceeds to infinity, God alone seeing, not the end of the resolution, of course, which does not exist, but the connection of the terms, or the containment of the predicate in the subject, since he sees whatever is in the series" (A 6.4:1656/AG 96). Indeed, the transition from one contingent truth to a simpler one, Leibniz says, "can have no end" (A 6.4:1517/MP 98); for to suppose that it terminates, thus yielding a demonstration, would "imply a contradiction" (A 6.4:1658/AG 97).[9] Finally, consider the cosmological argument that Leibniz presents in the opening paragraphs of his 1697 essay *On the Ultimate Origination of Things*. He claims that the world is a series of states and that each state determines the next in the series. He even grants that each (non-initial) state "is in a way copied from the preceding one" (GP 7:302/AG 149). In this respect, Leibniz maintains, the world is like a series of books in which each book is copied to make the next one in the series. In effect, the suggestion is that both the subsequent states of the world and the copied books have something they borrow, derive, or inherit from their predecessor—their content or nature. The series of states or books is thus relevantly similar to a series of reality borrowers. But Leibniz does not then proceed to argue that the regress of content borrowers must terminate, even in an infinite number of steps: he does not claim that there must be a first state or book in the series. Rather, he argues that the series itself, even if eternal (and thus, presumably, infinite), so that each member has a reason for its existence *within* the series, still requires some "extramundane" reason for its existence and nature—that is, a reason not within the series but of a different order altogether (cf. M 37).

The conceptual problem comes into view when we consider how reality comes to be borrowed by the series of composites from the simples, or conversely, how the simples come to lend their reality to the composites. Since the composites resolve into smaller composites *ad infinitum*, at no point in the regress will we ever reach a point at which any composite borrows its reality *directly* from simples; for that could happen only if there were a bottom level of composites. Thus, each composite in the hierarchy ultimately borrows its reality from simples, even though no composite ever

[8] See, e.g., A 6.3:504/LC 101; GM 3:551/L 511; cf. A 6.3:513. For helpful discussion of these texts, see Levey (1998) and Arthur, LC li–lxi.

[9] On the infinite analysis theory of contingent truth, see the fuller presentations at A 6.4:1516–18/MP 97–99 and A 6.4:1655–58/AG 96–98, as well as those at A 6.4:1649–50/AG 28–29; A 6.4:1659–61; A 6.4:1661–64/AG 98–100.

borrows its reality directly from simples. The problem with this picture is that it seems incoherent to suppose that simples could lend their reality to composites, even indirectly, without lending their reality directly to *something*. Simples do not lend their reality to other simples, and whatever is not simple is a composite. Hence, if simples lend their reality at all, they must lend it to composites. But if a simple does not lend its reality directly to any composite—if every composite borrows its reality from simples only indirectly—then no reality will be lent or borrowed at all. (Analogously, if I attempt to pass you $100 through a series of intermediaries, there must be someone to whom I pass the money directly; otherwise it will never leave my hands.) Of course, the mere fact that a view is conceptually problematic does not entail that it was not Leibniz's view; however, that fact does give us an additional reason not to ascribe the view to him, at least if a more suitable alternative can be found.

Let us consider one last suggestion before moving on. From what has been said so far, it is clear that the simples from which a composite ultimately borrows its reality should not be conceived as *termini* of the regress of composites within composites; that is, they are not members of that regress, but rather lie *outside* it, as both Adams (1994: 335) and Levey (1999: 158) have observed. But then why should we think that such regresses presuppose some unborrowed reality outside of themselves? Why could there not be a world of just composites, each of which borrows its reality from still smaller composites, so that for every reality borrower, there is some reality lender?

To my knowledge, the only attempt to answer this question in the literature appeals to the Principle of Sufficient Reason (PSR), that is, the demand for an explanation for every state that obtains.[10] Thus, Rutherford (2009: 44; cf. 42) describes Leibniz's reasoning this way: "if aggregates exist, then their reality must be explained in terms of the prior reality of 'true and real unities,' for only in this way do we have an explanation of their existence that satisfies the principle of sufficient reason." Levey (2012: 108–9) is more tentative, but suggests that we may find it tempting to invoke the PSR on Leibniz's behalf. To illustrate the idea, he appeals to an analogy in which he attempts to borrow a lawnmower from a neighbor, who sends him to another neighbor, who sends him to yet another neighbor, and so forth *ad infinitum*.[11] He then claims that such an infinite regress, in and of

[10] For similar proposals in the recent literature on metaphysical foundationalism, see Cameron (2008: 8–9) and Bliss (ms.).

[11] Leibniz himself offers similar analogies in the course of arguing for simple terms (A 6.4:151) and primitive concepts (A 6.4:157/MP 2). For discussion of the latter analogy, see Plaisted (2003: 333) and Lodge & Puryear (2006/2007: 188–89). On the use of similar analogies to support the existence of a fundamental level of being(s),

itself, would "be powerless to explain how it is that the neighborhood manages to have a lawnmower at all" (109). Analogously, an endless regress of reality borrowers would be powerless to explain how there comes to be any reality in the regress at all: "Loading more borrowers into the domain, however they are networked together, does nothing to identify the source of the reality of the whole." So even if the elements at each level of the regress find the source of their reality in those at the next lowest level, the thought goes, the PSR also requires that there be a source of the reality of *the whole regress*, something which explains why the regress contains any reality at all. In order to satisfy the PSR, then, we must posit some reality (or realities) *outside* the regress as the source or explanation of the reality *within* the regress, and of course this former reality must have its reality in itself, lest we merely replicate the problem. All borrowed reality therefore presupposes some unborrowed reality.

As Levey acknowledges, Leibniz never explicitly invokes the PSR in his discussions of the borrowed reality argument. Still, we may well find it natural to think that he would have, had he been pressed for further explanation. Indeed, the rationale described by Levey almost exactly parallels Leibniz's cosmological argument in the *Ultimate Origination*, where he argues that a complete explanation of the series of world-states requires some reason outside the series—i.e., an "extramundane" reason—even if the occurrence of each state is explained within the series by some prior state: "however far back we might go into previous states, we will never find in those states a full reason for why indeed there should be any world at all, and why it should be as it is" (GP 7:302/AG 149).

There is nonetheless good reason to doubt that Leibniz would have, or at least coherently could have, endorsed this line of thought. For on his view, God is the ultimate source of all created reality (T 30–31, 380; GP 6:383; M 42). Regardless of whether the universe consists only of real composites, or whether it also includes simples, from which the composites borrow their reality, a complete explanation for why there is any created reality at all, according to Leibniz's own reasoning, will require an extramundane reason, that is, God. But once God is posited as the ultimate explanation for all created reality, then there no longer seems to be any role for created simples to play in terms of satisfying the demands of the PSR, at least with respect to explaining the reality of composites. As far as the PSR is concerned, there is no reason why God could not have created a world of just composites, each borrowing its reality from its parts, but with the reality of the whole having been supplied directly by the creator, without any intermediaries within the created world. On such a scenario,

---

see Robb (2009: 261) and Schaffer (2016: 95). For misgivings about these analogies, which I share, see Cameron (2008: 9) and Levey (2012: 110).

there would be for each composite an explanation within the created order for its reality—in terms of its parts—and an extramundane explanation for how the entire series of composites comes to have any reality. Indeed the PSR gives us no more reason to posit intermediate sources of reality in this case than it gives us reason to posit intermediate creators, such as angels, in the cosmological case. In order to explain why there must be sources of unborrowed reality within the created word, then, we're going to need something more than the PSR. With that in mind, let us make a fresh start.

4. The Phenomenalist Rationale

So why does Leibniz believe that there must be some unborrowed reality? I propose that we understand his rationale for this claim to rest on two ideas: (i) reality borrowers are phenomena, and (ii) phenomena can be real only if they have a foundation in some external (i.e., non-phenomenal) realities, which have their reality in themselves and from which the phenomena may be said to borrow their reality.[12]

Both of these claims are undeniably Leibnizian and well-grounded in the texts. As for (i), the claim that reality borrowers are phenomena, consider the following. In the first of the De Volder letters, where Leibniz gives the borrowed reality argument in three steps, this is the second one: "things that are aggregated from many *are not one thing except from a mind*, and they have no reality except that which is borrowed, i.e., that is from the things from which they are aggregated" (GP 2:261/LDV 285, emphasis mine). Similarly, in his restatement of the argument in the second letter, he says: "Anything that can be divided into many (actually already existing) things is aggregated from many things, and anything that is aggregated from many things *is not one except from a mind*, and has no reality except what has been borrowed from what it contains" (GP 2:267/LDV 301, emphasis mine). These italicized expressions are allusions to Leibniz's doctrine that aggregates (or composites) are phenomena. On his view, *being* and *unity* are convertible, and so to say that a thing is not one except from a mind is equivalent to saying that it has no being except from a mind, and is thus a *phenomenon*. As he puts it in the contemporaneous *New Essays*, "*Beings by Aggregation* have no other achieved unity than the mental, and consequently their being is also in a way mental or phenomenal, like that

[12] David Scott has suggested to me that this second thesis may in fact be a corollary or perhaps even an instance of the PSR, in which case that principle would after all play a part in the rationale I am ascribing to Leibniz. If that be true, then the present section may be viewed as an attempt to show that the PSR can be parlayed into an argument for premise (3) of the borrowed reality argument only in conjunction with the key claim that reality borrowers are phenomena.

of a rainbow" (NE 146; cf. A 2.2:186/AG 86; GP 2:300/LDB 21; GP 2:304/LDB 31).[13]

But there are more than just allusions to this doctrine in his correspondence with De Volder. In a letter from the previous year (20 June 1703), Leibniz tells De Volder that "Arbitrary true unities, which we use in mathematics, [...] nonetheless conform to apparent beings, as are all beings by aggregation, like a flock or army, whose unity is from thought" (GP 2:250/LDV 261); he thus explicitly links the idea that aggregates have their unity in thought with their status as apparent beings. And again: "Since simple things alone are true things, the rest are only beings by aggregation, and therefore phenomena, and as Democritus used to say, exist by convention, not nature" (GP 2:252/LDV 265). Further, just after the first statement of the borrowed reality argument, in the letter from January 1704, while still discussing that argument, he adds that "bodies, which are commonly taken for substances, are nothing but real phenomena, and are no more substances than perihelia or rainbows" (GP 2:262/LDV 287). In the discussion immediately following the second statement of the argument, in the letter from June 1704, he again makes essentially the same point: "matter, or extended mass, is nothing but a phenomenon founded in things, like the rainbow or the perihelion" (GP 2:268/LDV 303). It seems clear, therefore, that when Leibniz put the borrowed reality argument to De Volder in 1704, he was thinking of aggregates as phenomena. Moreover, in both presentations of the argument, he relates the doctrine that aggregates are phenomena, or at least the closely related idea that aggregates have their unity in thought, to the idea that they must borrow their reality from their constituents.

What about (ii), the claim that phenomena can be real only if they have a foundation in some external (i.e., non-phenomenal) realities, which have their reality in themselves and from which the phenomena borrow their reality? I don't assume that Leibniz always thinks the same way about the reality of phenomena. There are indeed texts in which he seems to suggest that phenomena can be considered true or real just in virtue of their agreement, apparently without the need for an external foundation (see, e.g., A 6.4:1502/L 364; DM 14; GP 2:270/LDV 307). But there are just as surely other texts in which he speaks of phenomena being real in virtue of being well-founded, that is, founded in substances. In fact, one well-known example occurs in the context of Leibniz's second presentation of the borrowed reality argument to De Volder, where he clarifies that divisible things—here matter or extended mass—are in fact phenomena founded on the unities from which they ultimately borrow their reality:

[13] For more on this theme, see §5 below.

> Accurately speaking, matter is not composed of constitutive unities, but results from them; for matter or extended mass is only a phenomenon founded [*fundatum*] in things, like a rainbow or parhelion. All reality is only that of unities. Phenomena can therefore always be divided into smaller phenomena which could appear to other, more subtle animals, and a smallest phenomenon will never be reached. True substantial unities are not parts but foundations [*fundamenta*] of phenomena. (GP 2:268/LDV 303)

All reality is only that of true, substantial unities, says Leibniz. Thus, if a body or extended mass has any such reality at all, then it must borrow that reality from its constitutive unities; as he has just pointed out two paragraphs up, it "has no reality except what has been borrowed from what it contains" (GP 2:267/LDV 301). The clear implication is that these phenomena are real, but only in virtue of having a foundation in substances from which they borrow their reality. In effect, Leibniz affirms (ii).

Now for the rationale itself. If (i) and (ii) are both true, then we can easily see why it would be absurd for all reality to be borrowed. For given (i), the claim that all reality borrowers are phenomena, to suppose that all reality is borrowed is to suppose that there are only phenomena, and yet that these phenomena are real. According to (ii), however, phenomena cannot be real unless there are things that are not phenomena. To suppose that all reality is borrowed is thus to suppose both that there are, and that there are not, only phenomena. In other words, it's to suppose that there are well-founded phenomena without a foundation, which is indeed absurd. It is thus absurd that all reality be borrowed. Since this line of thought turns on the idea that reality borrowers are phenomena, I call it the *phenomenalist rationale*.

In the previous section, I criticized the PSR-based rationale on the ground that it fails to explain why it would be absurd, from Leibniz's point of view, to suppose a world of just reality borrowers. In such a world, each borrower's reality would be explained in terms of its parts, and the reality of the world as a whole would be explained in terms of God. Notice, however, that the rationale I am proposing is not vulnerable to an analogous objection. For Leibniz can plausibly maintain that God is simply not the right sort of being to serve as the foundation of our phenomena. They are not, after all, appearances *of God*, but of created realities. One reason for this is that, at least in the case of visual and tactile phenomena, any suitable foundation would, it seems, need to have a location in space that coincides with where the phenomenon appears to be, just as on the ordinary view, the water droplets that found the appearance of a rainbow are located just where the rainbow appears to be in the sky. Now on Leibniz's view, created substances do meet this requirement. As he tells De

Volder in the letter from 20 June 1703: "I do not think that any finite substances exist separated from every body, and thus without situation or order in relation to the other things coexisting in the universe" (GP 2:253/LDV 267–69). Indeed: "Even if Monads are not extended, they nonetheless have a certain kind of situation in extension, i.e., they have a certain ordered relation of coexistence to other things, namely through the machine over which they preside" (GP 2:253/LDV 267). God, however, does not have any situation in extension. It is thus metaphysically necessary that phenomena be founded on *created* substances, if they have any foundation at all.

The phenomenalist rationale also allows us to make good sense of how composites come to borrow their reality from their simple constituents. Consider: If we think of composites as reality borrowers just *qua* composites, then it will be natural to suppose that they borrow their reality in the first instance from their parts. Likewise, it will be natural to suppose that they ultimately borrow their reality from their simple constituents *through* borrowing their reality from their parts, their parts' parts, and so forth. Since the regress of parts within parts goes to infinity, this will involve conceiving of the reality-borrowing regress as terminating in simples at infinity, as in Figure 1, where 'C1' refers to some composite, 'C2' refers collectively to its (first-level) parts, 'C3' to C2's parts, and so on ('C' for composites), while 'S' refers collectively to the C1's foundational unities ('S' for simples).

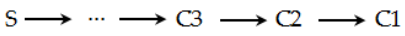

Figure 1. Chain of reality borrowing that terminates at infinity, i.e., at S, with arrows indicating direction of reality lending. Composite C1 borrows its reality from its (immediate) parts (collectively referred to as 'C2'), which in turn borrow their reality from their (immediate) parts (C3), and so on. All reality is ultimately borrowed from the simples (S).

As I have already pointed out, however, such a view is both textually and conceptually problematic. How then should we view the matter?

From the perspective of the phenomenalist rationale, a composite can be viewed as a reality borrower *qua* composite, that is, as borrowing its reality from its parts, which are also composites. But it can also be viewed as a reality borrower *qua* phenomenon, that is, as borrowing its reality from its foundations, which are simple substances. I do not mean to suggest that it borrows its reality from its foundations through borrowing its reality from its parts. That's the view I've already rejected. My suggestion is rather that the reality borrowing takes place as it were along two dimensions, or belongs to two orders. On the one hand, there is the borrowing of reality from a thing's parts, or *mereological borrowing*, which on Leibniz's view always goes to infinity. On the other, there is the borrowing of reality from

its foundations, or *foundational borrowing*. Since these two kinds of reality borrowing belong to different orders, we need not suppose that a composite borrows its reality from its foundations via its parts. Rather, we can suppose that the composite borrows its reality *directly* from its foundations. The two orders of borrowing thus relate to one another in much the same way that, according to many Scholastics, the "secondary causation" of creatures relates to the "primary causation" of God.[14] On one version of this distinction, creatures are secondary causes of the becoming of other creatures, but the primary cause, God, is the immediate cause of the being and causality of creatures. In the order of secondary causes, the cause of a creature's becoming is the action of another creature, and the chain of causation here may go to infinity; but in a deeper sense, in the order of primary causes, the becoming of a creature is caused immediately by God. Similarly, in the order of mereological borrowing, a composite borrows its reality from its parts, which borrow their reality from their parts, and so on; but in the order of foundational borrowing, the reality of a composite is borrowed immediately from its foundational unities, which are simple. In keeping with the causation analogy, we may even suppose that foundational borrowing is primary, and mereological borrowing secondary, in the sense that the latter presupposes the former. The latter may even be a mere artifact or epiphenomenon of the former.[15] Accordingly, reality borrowing may be supposed to take place not as in Figure 1 but as in Figure 2.

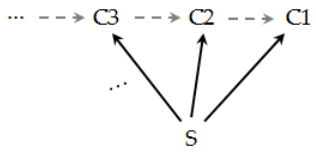

Figure 2. Each composite borrows its reality both from its parts and its (simple) foundations. Dashed arrows represent the chain of mereological reality borrowing, which is secondary and goes to infinity. Solid arrows represent foundational reality borrowing, which is primary and always unmediated.

[14] For a helpful discussion of this distinction in Aquinas, and its Neoplatonic origins, see Dodds (2004). See also Freddoso (1991). On Leibniz's version of the doctrine of divine concurrence with secondary causes, see Adams (1994: 94–98), Vailati (2002), Lee (2004), McDonough (2007), and Whipple (2010).

[15] Schaffer (2010: 61–65) argues that the possibility of atomless gunk, together with metaphysical foundationalism—the doctrine that there must be a fundamental ground of all being (37)—entails monism. If I am right, however, then Leibniz's two-level view, with mereological borrowing confined to the (gunky) phenomenal level, and foundational borrowing taking place between the phenomenal and substantial levels, illustrates how a pluralist could embrace a kind of metaphysical foundationalism and still accommodate the possibility—indeed the actuality—of atomless gunk.

Even though all the reality of composites is borrowed ultimately from simples, these simples are not the *termini* of an infinite regress of reality borrowers, and so the difficulty of explaining how the simples could lend their reality to composites without ever lending their reality directly to anything is avoided.

In sum, the phenomenalist rationale offers a straightforward explanation of why there must be some unborrowed reality, in terms of doctrines that Leibniz clearly has in view in the letters in which he presents his argument to De Volder, while also avoiding the textual and conceptual difficulties that plagued the alternative rationales considered in §3.

5. Reality Borrowers as Phenomena

I have argued that Leibniz's borrowed reality argument for a fundamental level of simples turns on premise (3), the claim that not all reality is borrowed, and that his rationale for this premise hinges in turn on two claims: (i) reality borrowers are phenomena and (ii) phenomena can be real only if they have a foundation in some external, *per se* realities from which they borrow their reality. Before concluding, I want to push my analysis of the borrowed reality argument a step further by considering what Leibniz has to say on behalf of the key premise of this rationale, namely (i), the claim that reality borrowers are phenomena.

On its face, this premise seems implausible. The mere fact that something has parts from which it must borrow its reality does not seem to entail that it is a phenomenon or appearance. Why should we grant this point? Leibniz's writings yield several possible arguments for this doctrine, but the most instructive of these is the one concisely stated in this passage from the *New Essays*, quoted in part above:

> [A]t bottom it must be admitted that this unity of collections is only a respect or relation the foundation of which is in that which we find in each of the individual substances taken alone. Thus these *Beings by Aggregation* have no other achieved unity than the mental, and consequently their being is also in a way mental or phenomenal, like that of a rainbow. (NE 146)

The core argument here can be reconstructed as follows:

1. Aggregates (or composites) have no unity except from a mind.
2. *Being* and *unity* are convertible.
3. Aggregates (or composites) have no being except from a mind. (from 1, 2)
4. That which has its being only from a mind is a phenomenon.
5. Aggregates (or composites) are phenomena. (from 3, 4)

Now the key premise here is (1). Leibniz takes the principle enunciated in (2), that *being* and *unity* convert, to be axiomatic (A 2.2:186/AG 86), and indeed it does seem self-evident. Further, premise (4), that what has its

being only from a mind is a phenomenon, seems reasonable enough. But (1), the claim that aggregates, i.e., composites, have no unity except from a mind, seems just as doubtful on its face as the argument's conclusion. After all, there seem to be composites all around us, such as rocks and molecules, that have unity even apart from the activity of any minds. Why should we follow Leibniz in thinking that composites, that is, reality borrowers, have no unity except from a mind?

Leibniz answers this question most fully in his correspondence with Antoine Arnauld, where he gives an interesting argument by cases.[16] He first notes that two diamonds located far from one another do not constitute a substantial or mind-independent unity, even though we can think of them as a single thing (e.g., a pair of diamonds) and refer to them collectively with a single name (e.g., 'the pair of diamonds'). He then adds that "more or less come to nothing here" (A 2.2:120/AG 79). So the diamonds can be brought closer and closer together, even to the point of touching, but that does not change the nature of the case: they are still two things, not one. Next we might imagine that the diamonds have been bound together in some way, so that they move together and cannot easily be separated. According to Leibniz, however, the fact that two things have been bound together in this "accidental" or inessential way does not produce a substantial unity—does not make them truly one. Further, participation in a common plan does not produce true unity either. Otherwise, "All the officers of the Dutch East India Company would make up a real substance, far better than a heap of stones" (A 2.2:192/AG 89). Hence, "contact, common motion, and participation in a common plan have no effect on substantial unity" (A 2.2:185/AG 86). In all these cases, Leibniz claims, our mind merely notices the similarities among the distinct things—similar locations, similar motions, similar ends, etc.—and "takes the occasion to join them together in thought and to suppose one name to account for all these things together" (A 2.2:191/AG 89).[17] The unity of a composite must therefore come from some mind, and given the rest of the argument above, it follows that composites are phenomena. Further, given that for Leibniz being a reality borrower is equivalent to being a composite, it also follows that reality borrowers are phenomena.

[16] For a recent development of similar arguments, see van Inwagen (1990).

[17] In a collection of definitions that dates from the early 1680s, Leibniz distinguishes unity *per se* and *per accidens* as follows: "*Unity per se* is what is one on the side of reality [*a parte rei*], such as me. *Unity per accidens* arises when many entities are conceived as one by a single act of mind, such as a pile of logs." (A 6.4:401).

What Leibniz is really getting at here is this.[18] Contact, coherence, and a common plan all consist in relations. Being in contact means being spatially next to something. Cohering involves standing in a constant spatial relationship over time. A common plan consists in having intentions that are so related as to advance a common goal. As he says in the passage from the *New Essays* quoted just above, the unity of an aggregate is at bottom only a respect or relation. But as he notes in the same context, relations do not have being outside the mind; rather, they are added by the understanding (NE 146). Suppose object *a* stands in some relation *R* to object *b*: *Rab*. *R*, on Leibniz's view, is not a concrete entity: it is neither a substance nor a substantiatum (cf. LDB 233–35/AG 200). So it must be either an accident of some concrete thing—namely, of either *a*, or *b*, or both *a* and *b*—or something else altogether. But *R* cannot be an accident of just *a* or just *b*, because *R* belongs equally to both, if it belongs to either at all. Further, as Leibniz argues in his fifth letter to Clarke, *R* cannot be an accident of both *a* and *b*, because "then we would have an accident in two subjects, with one leg in the one and the other in the other, which is contrary to the notion of accidents" (GP 7:401/AG 339). Hence, he concludes that the relation must be something else altogether, namely, an ideal entity having its being in the understanding: "it must be said that this relation [...] is indeed out of the subjects; but being neither substance nor accident, it must be a purely ideal thing" (ibid.). Accordingly, states such as being in contact, cohering, and participating in a common plan cannot obtain apart from the activity of a mind, and since *per se* unity is a unity that obtains apart from the activity of a mind, it follows that these states can never truly unify multiple things. At most they can serve as the bases for some mind to think or conceive of them as one.[19]

In the final analysis, then, the crux of Leibniz's borrowed reality argument turns out to be his thoroughgoing phenomenalism (or conceptualism) about composites, the case for which, we have seen, ultimately relies on his idealism about relations and his belief that true substances must have a *per se* and thus mind-independent unity. If the case for this phenomenalism turns out to be sound, then it is a short step to the conclusion that composites, that is, reality borrowers, can be real only if they have a foundation in some non-phenomenal (and thus simple) realities, and hence that in a sense all real composites do indeed presuppose simples, even if the resolution of those composites into smaller and smaller parts never ends.

---

[18] For similar accounts of the role played by relations in the unity of a composite/aggregate, see Rutherford (1990b: 19–20; 2008a: 175–76), Adams (1994: 246–47), and Lodge (2001: 472).

[19] Even the unity of an animal or corporeal substance would seem to consist in relations of domination (GP 2:252/LDV 265) and thus be only an accidental unity.

6. Conclusion

The crucial premise of Leibniz's borrowed reality argument for simples says that not all reality can be borrowed. I have argued that his rationale for this premise turns on his belief that reality borrowers are phenomena, and as such can be real only if they are founded on *per se* realities from which the phenomena borrow their reality in a sense which undergirds the borrowing of reality from their parts. As an interpretation of Leibniz, this proposal has many advantages. It provides a simple and straightforward explanation for why not all reality can be borrowed, drawing on doctrines that he clearly affirms or at least implies in the context of his fullest statements of the borrowed reality argument. It explains why he inserts into both statements of the argument in the correspondence with De Volder the claim that aggregates have their unity only from a mind. It fits with his observation in the second of those letters that bodies are well-founded phenomena and that indivisible unities are not their parts but their foundations. On interpretive grounds, we thus have many good reasons to favor this rationale over the alternatives. It also encourages a two-dimensional view of reality borrowing that avoids the conceptual difficulty I raised against the linear or one-dimensional model of reality borrowing.

If my argument here is correct, then the underlying logic of Leibniz's borrowed reality argument has been widely missed. Rather than turning on misgivings about infinite borrowing regresses, or on the PSR, it appeals to what appear to be deeper and more interesting considerations concerning the nature of composites, and more fundamentally, of relations. In brief, reflection on the nature of relations leads Leibniz to conclude that they must have their being only in the mind, and since the unity of composites is only a relation, it follows that they have no unity except from a mind. On the basis of the principle that *being* and *unity* convert, Leibniz then infers that composites have their being only from the mind and are thus phenomena. Finally, the thesis that composites are phenomena, together with the fact that some composites are real, leads to the conclusion that they must have a foundation in some non-phenomenal and thus simple realities, from which they may be said to borrow their reality. There must be simples, therefore, because there are (real) composites, just as Leibniz claims in §2 of the *Monadology*. If this analysis is correct, then what initially looked like a disappointingly simple argument for simples turns out on closer inspection to be a rather rich and sophisticated argument. Whether it is sound or not remains to be seen, but at the very least it constitutes an interesting alternative to the related arguments for simples that have recently been imputed to Leibniz.

Abbreviations

A *Sämtliche Schriften und Briefe*, edited by Deutsche Akademie der Wissenschaften (Darmstadt und Berlin: Akademie-Verlag, 1923–), cited by series, volume, and page number.

AG *G.W. Leibniz: Philosophical Essays*, edited by Roger Ariew and Daniel Garber (Indianapolis: Hackett, 1989).

DM *Discourse on Metaphysics*, cited by section number.

GM *Leibnizens Mathematische Schriften*, edited by C. I. Gerhardt (Berlin: Asher and Schmidt, 1849–63), cited by volume and page number.

GP *Die philosophischen Schriften von Gottfried Wilhelm Leibniz*, edited by C. I. Gerhardt (Berlin: Weidmannsche Buchhandlung, 1875–90), cited by volume and page number.

L *Gottfried Wilhelm Leibniz: Philosophical Papers and Letters*, 2nd edition, edited by Leroy Loemker (Boston: Kluwer, 1989).

LC *The Labyrinth of the Continuum*, edited by Richard T. W. Arthur (New Haven: Yale, 2001).

LDB *The Leibniz-Des Bosses Correspondence*, edited by Brandon Look and Donald Rutherford (New Haven: Yale, 2007).

LDV *The Leibniz-De Volder Correspondence*, edited by Paul Lodge (New Haven: Yale, 2013).

M *Monadology*, cited by section number.

MP *Leibniz: Philosophical Writings,* trans. by Mary Morris and G. H. R. Parkinson (London: J. M. Dent, 1973).

NE *New Essays on Human Understanding*, cited by page number from A 6.6.

T *Essays of Theodicy*, cited by section number.

References

Adams, Robert M. 1994. *Leibniz: Determinist, Theist, Idealist.* New York: Oxford University Press.

Arthur, Richard T. W. 2011. "Presupposition, Aggregation, and Leibniz's Argument for a Plurality of Substances," *Leibniz Review* 21: 91–115.

Bliss, Ricki Leigh. 2013. "Viciousness and the Structure of Reality," *Philosophical Studies* 166: 399–418.

Bliss, Ricki. ms. "Metaphysical Foundationalism and the Principle of Sufficient Reason."

Cameron, Ross P. 2008. "Turtles All the Way Down: Regress, Priority and Fundamentality," *Philosophical Quarterly* 58(230): 1–14.

Dodds, Michael J. 2004. "The Doctrine of Causality in Aquinas and *The Book of Causes*: One Key to Understanding the Nature of Divine Action," in Timothy L. Smith, ed., *Aquinas's Sources*. South Bend, IN: St. Augustine's Press.

Doggett, Tyler. 2010. "Why Leibniz thinks Descartes was wrong and the

Scholastics were right," *Philosophical Studies* 149: 1–18.
Freddoso, Alfred J. 1991. "God's General Concurrence with Secondary Causes: Why Conservation is Not Enough," *Philosophical Perspectives* 5: 553–85.
Garber, Daniel. 2009. *Leibniz: Body, Substance, Monad.* New York: Oxford University Press.
Holden, Thomas. 2004. *The Architecture of Matter: Galileo to Kant*. New York: Oxford University Press.
Lee, Sukjae. 2004. "Leibniz on Divine Concurrence," *Philosophical Review* 113(2): 203–48.
Levey, Samuel, 1998. "Leibniz on Mathematics and the Actually Infinite Division of Matter," *The Philosophical Review* 107(1): 49–96.
Levey, Samuel. 1999. "Leibniz's Constructivism and Infinitely Folded Matter," in Rocco J. Gennaro and Charles Huenemann, eds., *New Essays on the Rationalists*. New York: Oxford University Press, 134–62.
Levey, Samuel. 2003. "On Unity: Leibniz-Arnauld Revisited," *Philosophical Topics* 31(1/2): 245–75.
Levey, Samuel. 2007. "On Unity and Simple Substance in Leibniz," *Leibniz Review* 17: 61–106.
Levey, Samuel. 2008. "Why Simples? A Reply to Donald Rutherford," *Leibniz Review* 18: 225–47.
Levey, Samuel. 2012. "On Unity, Borrowed Reality and Multitude in Leibniz," *Leibniz Review* 22: 97–134.
Lodge, Paul. 2001. "Leibniz's Notion of an Aggregate," *British Journal for the History of Philosophy* 9(3): 467–86.
Lodge, Paul and Stephen Puryear. 2006/2007. "Unconscious Conceiving and Leibniz's Argument for Primitive Concepts," *Studia Leibnitiana* 38/39(2): 177–96.
McDonough, Jeffrey K. 2007. "Leibniz: Creation and Conservation and Concurrence," *Leibniz Review* 17: 31–60.
Morganti, Matteo. 2015. "Dependence, Justification and Explanation: Must Reality be Well-Founded?" *Erkenntnis* 80: 555–72.
Phemister, Pauline. 2005. *Leibniz and the Natural World: Activity, Passivity and Corporeal Substances in Leibniz's Philosophy.* Dordrecht: Springer.
Plaisted, Dennis. 2003. "Leibniz's Argument for Primitive Concepts," *Journal of the History of Philosophy* 41(3): 329–41.
Rabin, Gabriel Oak, and Rabern, Brian. 2016. "Well Founding Grounding Grounding," *Journal of Philosophical Logic* 45: 349–79.
Robb, David. 2009. "Substance," in Robin Le Poidevin, et al., eds., *The Routledge Companion to Metaphysics*. New York: Routledge Press, 256–64.
Rutherford, Donald. 1990a. "Leibniz's 'Analysis of Multitude and Phenomena into Unities and Reality'," *Journal of the History of Philosophy*

28(4): 525–52.
Rutherford, Donald. 1990b. "Phenomenalism and the Reality of Body in Leibniz's Later Philosophy," *Studia Leibnitiana* 22(1): 11–28.
Rutherford, Donald. 2008a. "Leibniz as Idealist," *Oxford Studies in Early Modern Philosophy* 4: 141–90.
Rutherford, Donald. 2008b. "Unity, Reality and Simple Substance: A Reply to Levey," *Leibniz Review* 18: 207–24.
Rutherford, Donald. 2009. "Simple Substances and Composite Bodies (§§ 1–5)," in Hubertus Busche, ed., *Monadologie*. Berlin: Akademie Verlag, 35–48.
Schaffer, Jonathan. 2010. "Monism: The Priority of the Whole," *Philosophical Review* 119(1): 31–76.
Schaffer, Jonathan. 2016. "Grounding in the Image of Causation," *Philosophical Studies* 173(1): 49–100.
Strickland, Lloyd. 2014. *Leibniz's* Monadology*: A New Translation and Guide.* Edinburgh University Press.
Trogdon, Kelly. 2018. "Inheritance Arguments for Fundamentality," in Ricki Bliss and Graham Priest, eds., *Reality and Its Structure*. New York: Oxford University Press, 182–98.
Vailati, Ezio. 2002. "Leibniz on Divine Concurrence with Secondary Causes," *British Journal for the History of Philosophy* 10(2): 209–30.
van Inwagen, Peter. 1990. *Material Beings*. Ithaca, NY: Cornell University Press.
Whipple, John. 2010. "Leibniz on Divine Concurrence," *Philosophy Compass* 5(10): 865–79.