What is priority monism?

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Abstract. In a series papers, Jonathan Schaffer defended priority monism, the thesis that the cosmos is the only fundamental material object, on which all other objects depend. A primitive notion of dependence plays a crucial role in Schaffer's arguments for priority monism. The goal of this paper is to scrutinize this notion and also to shed new light on what is at stake in the debate. I present three familiar arguments for priority monism and point out that each relies on a connecting principle that ties dependence to other metaphysical relations. I then argue for two desiderata: the relation between dependence and other metaphysical relations needs to be strong enough to establish that other metaphysical relations are relevant to the direction of dependence but not so strong as to leave no room for revisionary versions of priority monism. I propose a particular way of meeting these desiderata, according to which the target notion of dependence is graded rather than all-or-nothing. One upshot is that we should be less preoccupied with priority monism itself and should instead focus on specific aspects of a broader monistic worldview.

In a series of papers, Jonathan Schaffer (2010a, 2010b, 2010c, 2013) defends *priority monism*, the thesis that the cosmos is the only fundamental material object on which all other objects depend (more on the exact formulation in section 1).[1] Over the years Schaffer offered several arguments for priority monism, which appeal to substantive theses about the relation between dependence and other metaphysical relations (necessitation, parthood, nomic subsumption, etc.). I don't intend to take a stance on the soundness of these arguments. Instead, I want to get clear on how to understand the relation between the relevant notion of dependence and these other relations. My conclusion will be that the target notion is best understood as admitting of degree, rather than as all-or-nothing. That is, perhaps somewhat counter-intuitively, we can ask not only *whether* all other concrete objects depend on the cosmos, but also *to what extent* they depend on it. This finding has an interesting upshot: what

[1] It can be gathered from Schaffer's many scattered remarks that he uses the word 'cosmos' as shorthand for the definite description 'the most inclusive mereological sum'. This is how I will use the word throughout the paper, too.

is really at stake in the debate between priority monism and priority pluralism is a general monistic worldview, but this worldview cannot simply be identified with the official doctrine of priority monism. This suggests that we would do well to be less concerned with priority monism itself and should instead focus on specific aspects of the worldview.

The rest of the paper will proceed as follows. In section 1, I will give a more careful statement of the version of priority monism I wish to focus on: I will formulate the thesis in terms of what I will (after Schaffer) call S-dependence and clarify some conceptual issues about this notion. In section 2, I will present three of the most widely discussed arguments for priority monism: the Arguments from Supervenience, Nomic Integration, and Gunk.[2] As I will point out, each argument relies on a *connecting principle* that posits a tight link between S-dependence and some other relation. In section 3, I will ask two questions. First, can a connecting principle be conceivably false? I will argue that the answer is 'Yes': many coherent and defensible views in metaphysics leave room for denying these principles. Second, is it conceivable that *all* of the connecting principles are false? Here, I will argue for a negative answer on the basis that otherwise the core notion of dependence would be utterly mysterious and useless. This leaves us with a twofold desideratum: the relation between S-dependence and other metaphysical relations needs to be strong enough to establish that modal, mereological and nomic facts are relevant to the presence and direction of S-dependence, but not so strong as to leave no room for severing the relation between S-

[2] There are, of course, other arguments for priority monism that deserve attention – for instance, the Argument from Entanglement (Schaffer 2010a: §2.2), the Argument from Internal Relatedness (Schaffer 2010b), and the Argument from Truthmakers (Schaffer 2010c) –, but due to space limitations I have to confine my discussion to these three. I suspect, though cannot argue here, that the paper's main conclusions apply to these arguments as well.

dependence and any particular metaphysical relation. In section 4 I will propose a way of meeting these desiderata, according to which the proper parts of the cosmos S-depend on the cosmos just in case they bear a certain "weighed total" of modal, mereological and nomic relations to the cosmos; and the more of these relations they bear to the cosmos, the more they S-depend on it. Finally, in section 5 I will suggest that if this view is correct, the proper moral to draw is that the questions that led us to wonder whether priority monism is true are more fruitfully addressed through a set of loosely related questions that don't directly concern the direction of S-dependence.

1. Formulating priority monism

Priority monism is usually understood as the view that there is only one basic object, the cosmos:

> "Monism can thus be thought of as the conjunction of the numerical thesis that there is exactly one basic object with the holistic thesis that the cosmos is basic." (2010a: 42; cf. 2010b: 344)

Schaffer's notion of fundamentality is to be understood in terms of grounding or dependence (on which more in a moment): a thing is fundamental just in case it isn't dependent on or grounded in anything.[3] A second way in which dependence figures in Schaffer's presentation of monism is that beside not being dependent on anything, the cosmos is also as the object on which all other objects depend:

> "The monist holds that the whole is prior to its parts, and thus views the cosmos as fundamental,

[3] Schaffer 2009: 373, 2010a: 38, 2013: 68

> with metaphysical explanation dangling downward from the One." (2010a: 31)

> "[T]he core thesis of [priority] monism is that the whole is prior to its parts […] The parts are posterior to, grounded in, dependent upon, and existent in virtue of, the whole." (2010b: 342–343)

Elsewhere, Schaffer also adds that the cosmos has to be integrated (2013: 67–68). As these passages reveal, there is some ambiguity in Schaffer's work as to the exact commitments of a would-be priority monist. We can distinguish several different claims: that the cosmos is fundamental, that it's the only fundamental object, that it's fundamental and integrated, that it's the only fundamental and integrated object, that all other objects depend on it, etc. This last thesis is the one I will focus on in what follows:

> (*Dependence Monism*) Any concrete object other than the cosmos depends on the cosmos.

Priority monism is often contrasted with its negation, priority pluralism. For the sake of simplicity, in this paper I will understand this thesis as the negation of Dependence Monism in particular:

> (*Dependence Pluralism*) For some concrete object *x* other than the cosmos, *x* doesn't depend on the cosmos.

It is important to flag that (as many authors have noted) Schaffer's notion of dependence is somewhat idiosyncratic. As some of the passages quoted above reveal, he tends to use 'dependence' and 'grounding' more or less interchangeably. But by 'dependence' he doesn't

mean grounding as usually understood, since that notion is standardly reserved for an explanatory relation that relates facts or perhaps propositions, whereas Schaffer's dependence is category-neutral.[4]

Yet his notion of dependence isn't conveniently identified with any of the specific relations familiar from the specialized literature on ontological dependence, either. Take, for example, rigid existential dependence: *x* rigidly existentially depends on *y* iff necessarily, if *x* exists then *y* exists. If everything rigidly existentially depended on the cosmos, no object could exist without the particular mereological sum that is the cosmos. Moreover, Schaffer thinks that an integrated whole's arbitrary parts depend on that whole; for example, an organism's arbitrary parts depend on the organism (Schaffer 2010: 47–8). But if arbitrary parts rigidly existentially depended on the organisms they are parts of, the right side of my pinky finger couldn't survive my destruction. This is a highly implausible consequence; nor is there anything in Schaffer's work to suggest that he would accept it. Therefore it's reasonable to conclude that by 'dependence' he doesn't mean rigid existential dependence. *A fortiori* he cannot mean any of the stronger notions that entail but aren't entailed by rigid existential dependence, either, such as essential dependence, identity dependence, or explanatory dependence.[5] A natural fallback position is to interpret Schaffer's dependence as

[4] For grounding understood as a relation between facts, see Rosen 2010, and Audi 2012. See also Fine 2001, 2012 and Dasgupta 2014 for a cognate approach that expresses grounding with a sentential connective and avoids ontological commitment to entities that could serve as relata. Trogdon (2013: 104) suggests that Schaffer uses the word 'grounding' to mean what other philosophers mean by 'ontological dependence'.

[5] For overviews of these notions see Correia 2008, Koslicki 2013, and Tahko and Lowe 2015. For related discussion of the relation between Schaffer's dependence and the standard notions of ontological dependence, see Steinberg 2015: 2027, Tallant 2015: 3107–8, and Calosi 2020. Calosi thinks that Schaffer's notion of dependence is at least as strong as rigid existential dependence, raises some problem cases similar to the one I

generic: *x* generically depends on a *y* that is K iff necessarily, if *x* exists then some K exists. But many of the problem cases for the rigid-existential interpretation prove equally problematic for this one. For example, if the right half of my pinky finger generically depends on there being some human being or other, it couldn't survive the annihilation of the human race. Moreover, it's hard to think of any kind I fall under that couldn't lose all of its members consistently with the right half of my pinky finger staying in existence.

Perhaps there is a hitherto unnoticed kind of ontological dependence that could be identified with Schaffer's notion. Or perhaps we can define up a category-neutral relation in terms of grounding that might do the job.[6] I won't press the point here, since the details of my argument won't depend on which (if any) kind of ontological dependence Schaffer's notion corresponds to. Schaffer himself often emphasizes that theoretical concepts don't need to be defined in simpler terms in order to be understood; it suffices to illuminate them through paradigm cases, point out their connections to other concepts and lay out systematic

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mentioned, and concludes that priority monism has the hitherto unnoticed cost of violating some plausible recombination principles. I think the more charitable moral to draw is that by 'dependence' Schaffer cannot possibly mean any of these rigid notions.

[6] This is the strategy preferred by Calosi (2020: §4.2), who argues that priority monism may best be formulated in terms of *support*, where some *x*s jointly support some *y* iff the existence of *y* is grounded in the existence of the *x*s. For what it's worth, I'm skeptical about this interpretation as well. If priority monism (understood in terms of support) is true, the existence of my pinky finger's right half is grounded in the existence of the cosmos. But grounding is widely assumed to be a necessitating relation (though see Leuenberger 2014 and Skiles 2015). It would follow that necessarily, if the cosmos exists then so does my pinky finger's right half. My verdict is similar to the one I made about the rigid dependence interpretation: this result is too implausible for Schaffer to have intended it, but it's also too obvious for him to have just overlooked it. So by 'dependence' he couldn't have meant support in Calosi's sense.

(including formal) principles that guide their behavior.[7] If this much suffices to properly convey a concept, we are released not only from the obligation to provide a reductive definition of Schaffer's dependence but also from the need to identify it with notions already on the scene. So, I'm willing to grant Schaffer the right to set up the monism/pluralism debate in his own terms and will not hold it against him that his notion of dependence doesn't exactly correspond to any contemporary notion of grounding or ontological dependence. To avoid confusion, I will henceforth refer to Schaffer's notion of dependence as "S-dependence".

Two more clarificatory comments. First: all parties to the debate understand priority monism as a thesis restricted to concrete particulars. So the dependence of the cosmos on universals, for instance, is consistent with Dependence Monism.[8] Second: there is controversy over the modal status of Dependence Monism. Some criticisms of monism assume that monism is true in the actual world only if it's true in every possible world[9], while others question this assumption.[10] (Schaffer's own attitude to the necessity of monism is sympathetic but not fully committal.[11]) Two of the three arguments for Dependence Monism I will consider below don't depend for their success on monism's being a noncontingent thesis, while the third one (the Argument from Gunk) is normally thought to.[12] However,

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[7] See Schaffer 2009, 2016.

[8] Schaffer 2010a: 38, 2010b: 344, Trogdon 2017: 2–3. It's less clear whether priority monism is consistent with the dependence of the cosmos on tropes, since tropes may be considered concrete; see Giberman 2015.

[9] See Steinberg 2015 and Baron and Tallant 2016.

[10] See Siegel 2016 and Benocci 2017

[11] See Schaffer 2010a: 56 vs. Schaffer 2010b: 344.

[12] Though see footnote 20.

since I don't *endorse* any of these arguments, the forthcoming discussion shouldn't be read as taking either side in the debate over the modal status of monism.

In the next section I will discuss three major arguments for Dependence Monism. My goal is not to conclusively rebut them; for my purposes it will suffice to show that each relies on a non-obvious connecting principle.

2. Three arguments for Dependence Monism

In what follows I will discuss three arguments for Dependence Monism: the Argument from Supervenience, the Argument from Nomic Integrity, and the Argument from Gunk. Schaffer's arguments show some variation in their intended conclusions, so I took liberty to reframe all of them as arguments for Dependence Monism. This won't do any harm to the spirit of these arguments, but it will make for a more focused and streamlined discussion.

2.1. The Argument from Supervenience

The first argument to consider is based on the idea that wholes can have emergent properties but their parts cannot have submergent properties. This means, minimally, that it's possible for the whole to have intrinsic properties that don't supervene on the properties and relations of its parts, but not possible for the parts to have intrinsic properties or stand in relations with one another which don't supervene on the intrinsic properties of the whole (for better readability, I will henceforth omit the qualification 'intrinsic'). "In this sense," Schaffer writes, "the whole may well be […] more than the sum of its parts" (2010a: 57). In premises and conclusions form:

Argument From Supervenience

S1) The properties of the cosmos don't supervene on the properties and relations of the cosmos's proper parts

S2) The properties and relations of the cosmos's proper parts supervene on the properties of the cosmos

S3) If the properties and relations of the cosmos's proper parts supervene on the properties of the cosmos but not *vice versa*, then the cosmos's proper parts S-depend on the cosmos

S4) So, the cosmos's proper parts S-depend on the cosmos. So, Dependence Monism is true.[13]

Schaffer's defense of the argument mostly focuses on S1 and is based on the possibility that the cosmos has emergent properties (a possibility that may well be an actuality, given quantum entanglement). The defense of S2 is based on the idea that for any relation R instantiated by proper parts of the cosmos, the cosmos has the property of *having such-and-such parts standing in* R (2010a: 57). While plausible at first glance, this premise came under scrutiny: as Calosi (2017) points out, it's based on substantive principles about property composition.

[13] Cf. Schaffer 2010a: 57. Strictly speaking, Schaffer's argument is based on the *possibility* of asymmetric supervenience and uses a premise to the effect that if the Cosmos's proper parts depend on the Cosmos, they do so necessarily. Going through these moves would complicate the discussion in irrelevant ways, so I will skip them. See also Schaffer's Argument from Entanglement in the same paper, in effect a more empirically minded version of the Argument from Supervenience.

However, I would like to focus on another premise that is equally crucial to the argument but has so far received comparatively little attention. This is S3, which is a special instance of the following general principle:

> (*Supervenience Connection*) If the properties and relations of proper parts of an object O supervene on the properties of O but not *vice versa*, then O's proper parts S-depend on O

According to the Supervenience Connection, from the asymmetric *superveniece* of an object's properties on its parts' properties and relations we can infer the *S-dependence* of that object's proper parts on the object. Extant criticisms of the Supervenience Connection (and similar principles in other formulations) focus on the move from properties to objects. For example there might be fundamental distributional properties plurally instantiated by an object's proper parts (Bohn 2012); alternatively, some objects might be non-fundamental bearers of fundamental properties (Paul 2013). Either option allows the properties and relations of an object's parts to S-depend on the properties of the object without the parts themselves S-depending on the object itself.

But I think that the Supervenience Connection can be rejected at an even earlier stage: instead of focusing on the move from property fundamentality to object fundamentality, one can resist the move from asymmetric supervenience to property fundamentality. One reason that hyperintensional notions like grounding, dependence and fundamentality have received so much attention in recent years is the widespread recognition that no combination of purely modal notions (such as entailment and supervenience) guarantees their instantiation. For example, if physicalism is meant to capture the idea that the physical is metaphysically

prior to the mental, then no thesis cast exclusively in terms of supervenience will secure the truth of physicalism so understood. While this doesn't rule out the possibility that supervenience might suffice for a kind of metaphysical dependence in certain domains, even in those cases one could reasonably demand a reason to accept that relations of S-dependence can be read off relations of supervenience. The Supervenience Connection cannot simply be taken for granted.

One could even try to argue that the supervenience asymmetry supports the hypothesis that S-dependence runs in the opposite direction. As I mentioned above, Schaffer accepts the supervenience asymmetry because for any of the parts' properties and relations, the cosmos has a corresponding property of *having such and such parts with such and such properties/relations*. But this means that these corresponding properties are *micro-based* in the properties and relations of the cosmos's proper parts: they are structural compounds of those part's simpler properties and relations. And micro-basing is often seen as a hierarchical ordering relation similar to S-dependence (Armstrong 1978: Ch. 18, Kim 1998: 83–84, Bennett's 2017: 10), which suggests that micro-based properties are *less* fundamental than the properties they are micro-based in. But then, why think that in the case of the cosmos and its proper parts, the direction of dependence tracks the direction of supervenience? It seems at least as plausible, if not more so, that it tracks the direction of the relation (micro-basing) that partially *explains* the direction of supervenience. And if this is correct, the supervenience asymmetry supports a conclusion contrary to Schaffer's, namely that it's the cosmos that S-depends on its proper parts.

My purpose above has not been to conclusively refute the Supervenience Connection. All I tried to show was that it's an open question whether the connecting principle was true. Suppose for a moment that it isn't. In that case, the Argument from Supervenience is

unsound. Of course, Dependence Monism might be true even if this particular argument for it fails. Note, however, that if the Supervenience Connection were false, Dependence Monism would come apart from parts of the monistic worldview. For example, Schaffer notes that "[t]he primary is (as it were) all God would need to create. The posterior is grounded in, dependent on, and derivative from it" (2009: 351). The creation metaphor is a recurring theme in contemporary metaphysics. But it directly vindicates only talk of supervenience, not dependence. If the properties and relations of the cosmos's parts asymmetrically supervene on the properties of the cosmos, then God would indeed only have to create the cosmos to ensure that its proper parts exist. But this would be the case *whether or not the proper parts of the cosmos S-depend on the cosmos*. On the other hand, if the cosmos's proper parts S-depend on the cosmos but there's no asymmetric supervenience between the two, then Dependence Monism is true but the creation metaphor is unwarranted. For in that case, by creating the cosmos God either doesn't ensure the existence of the cosmos's parts (if supervenience fails) or ensures it only in the same sense in which He also ensures the existence of the cosmos by creating the cosmos's parts (if supervenience is symmetric).

Of course, there is a lot more at stake in the monism/pluralism debate than whether it's sufficient for God to create the cosmos to ensure that its parts exist. Still, this is a major point of contention between a monistic and a pluralistic worldview. If we gave up the Supervenience Connection, we would need to conclude that in certain regards the monistic worldview could come apart from the official thesis of Dependence Monism.

2.2. The Argument from Nomic Integrity

The second argument is based on empirical considerations. My formulation is based on Schaffer's (2013: 67) and goes as follows:

Argument from Nomic Integrity

N1) An object is fundamental iff it evolves by the fundamental laws

N2) The cosmos is the one and only object that evolves by the fundamental laws

N3) Every object is either fundamental or depends on an object that is fundamental

N4) So, the proper parts of the cosmos depend on the cosmos. So, Dependence Monism is true

A few remarks on the differences between my formulation and Schaffer's. Schaffer derives N1 from two more basic premises: that an object is a substance if and only it is a fundamental and integrated thing ("Substance") and that something is a substance if and only if it evolves by the fundamental laws ("Leibnizian Substance"). Since N1 won't be my main focus here, I simplified it by contracting the two premises into one and by ignoring integration. N2 is what Schaffer calls "Russellian Laws". The strongest reason Schaffer offers for it is that any subsystem of the cosmos is liable to outside disruption, whereas the cosmos itself isn't (since by definition it already includes anything that could "disrupt" a process). Therefore there is no candidate smaller than the cosmos whose behavior the laws can predict with full accuracy. N3 doesn't occur anywhere in Schaffer's formulation; I added it because it's needed for the Argument from Nomic Integrity to be an argument for the same conclusion as Schaffer's other arguments for monism.

Similarly to Schaffer's other arguments for monism, the Argument from Nomic Integration has been subject to criticism. In a recent paper Baron and Tallant (forthcoming) argue that we have no strong reason to accept N2. This is because General relativity can predict large-scale phenomena and Quantum mechanics can predict small-scale ones, but neither can predict both with full accuracy. Moreover, the two make different predictions for the same phenomena. Consequently, there is no unique set of laws that predict the behavior of the cosmos with full accuracy, and N2 is false. Other arguments attack modally prefixed versions of N2 and along with it, the stronger conclusion that Dependence Monism is necessarily true.[14]

The truth of N2 is largely an empirical question (as Baron and Tallant also recognize), and I don't have more to say about it. Instead, I wish to focus on N1, a premise whose main significance lies in linking the core notion of fundamentality (and given N3, indirectly S-dependence) to other notions. More precisely, I want to focus on the "if" side of N1:

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[14] Siegel (2016) considers a "hyper-expansion world" with two sub-systems that eventually become causally isolated and argues that in such a world, Russellian Laws is plausibly false. He concludes that monism is at best contingently true. Baron and Tallant (2016) go a step further. They take island universe scenarios ("weak island universes" that fail to be unified by causal, spatial or temporal relations and "strong island universes" that are not unified by any sparse relation) and argue that their metaphysical possibility undermines not only a modally prefixed version of N2 but even monism itself. Their claim is, in a nutshell, based on the idea that it's an essential tenet of monism that the cosmos is not only fundamental but also integrated, and that a causally and spatiotemporally disunified cosmos wouldn't be integrated. I think this reasoning relies too heavily on the informal characterization of monism given in Schaffer 2013; as I noted above, in his other work Schaffer includes no integration requirement in his official definition. However, I'm happy to grant Baron and Tallant that a disunified fundamental cosmos nonetheless violates important aspects of the monistic worldview even if it's consistent with the letter of Dependence Monism itself. See also the next few paragraphs of this section.

$N1_{if}$) If an object evolves by the fundamental laws, it's fundamental

Why accept the $N1_{if}$? The best argument I can discern in Schaffer 2013 is that this gives us a good handle on the systematic connection between the fundamentality status of laws and objects. One could raise here worries similar to those of Paul (2013) about inferring the fundamentality status of an object from that of its properties (see section 2.1). But even if we do seek such a systematic connection between objects and the laws by which they evolve, there might be alternatives to $N1_{if}$. Schaffer's main reason for thinking that the cosmos evolves by fundamental laws is that anything smaller is liable to outside disruption. Yet many pluralities of objects overlap the cosmos and aren't liable to outside disruption, either. Why think that it's not some of these objects that (plurally) qualify as fundamental (E. Miller 2013: 377–379)?

As far as I can see, Schaffer's strongest objection to this idea is that a pluralized version of N1 would have implausible consequences for the fundamentality status of certain pluralities of objects. For example, it would imply that since my hand and the mereological difference of the cosmos and my hand jointly fall under fundamental laws, they are fundamental objects. However, as Miller points out, a sensible pluralist should say that co-evolution by the fundamental laws is at best a necessary, but not a sufficient, condition of fundamentality. Many pluralities of objects fall under fundamental laws: my hand and the mereological difference of the cosmos and my hand; all mereological simples (if there are any); the degenerate plurality that is the cosmos itself; and so on. Evidently, not each of these pluralities involves collectively fundamental objects. But it's far from clear that the cosmos itself is the best candidate for counting as genuinely fundamental; it seems no less

plausible to insist that it's a certain plurality of microphysical particles (say, quarks) that we should consider fundamental.

In fact, it's not even clear that falling under fundamental laws is necessary for an object to be fundamental. For take again Baron and Tallant's aforementioned argument against Russellian Laws: neither Quantum mechanics nor General relativity predicts the cosmos's behavior with full accuracy; the two give jointly inconsistent predictions; and so, the cosmos doesn't evolve by fundamental laws (at least not in the strong sense that would be required for Schaffer's argument to go through). Notice that this argument generalizes to arbitrary total decompositions of the cosmos into parts. If neither Quantum mechanics nor General relativity predicts the cosmos's behavior with full accuracy, then it's also true that neither predicts with full accuracy the behavior of any non-overlapping *x*s that compose the cosmos. And if that is true, then either there are no fundamental *x*s that the cosmos decomposes into or some such *x*s are fundamental but don't fall under fundamental laws. If the latter is the case, it remains a possibility that the cosmos is fundamental, albeit without falling under fundamental laws.

Schaffer put forth the Argument from Nomic Integration as an argument for the claim that the cosmos is fundamental, so above I have been focusing on $N1_{if}$. But since I formulated Dependence Monism as a thesis about S-dependence, it's worth reformulating the premise accordingly:

> (*Nomic Connection*) If an object evolves by the fundamental laws, there is no other object on which it S-depends.

Similarly to section 2.1, the foregoing discussion wasn't meant to provide any knockdown objection to the Nomic Connection. I merely point out that the principle is disputable and has defensible alternatives. This opens up further ways in which Dependence Monism might come apart from the monistic worldview. When introducing the Argument from Nomic Integrity, Schaffer notes that according to the monist, "the cosmos ticks like a single clockwork. To cast a slogan: reality acts as one" (2013: 67). In other places, he connects monism to the idea that the best physical story of the world is told in terms of the cosmos rather than any set of its proper parts (2010a: 51). Yet these remarks (even if true) don't automatically justify Dependence Monism. If the Nomic Connection is false then the cosmos might "tick like a single clockwork" and "act as one" without all other objects S-depending on it. Conversely, if the extension of Baron and Tallant's argument suggested in the previous paragraph is viable, Dependence Monism might be true without the cosmos ticking like a single clockwork.

It bears repetition that various issues are at stake in the monism/pluralism debate, and whether the cosmos acts like a unity, or is the only object that acts like a unity, is just one of them. Still, it's noteworthy that one could accept Dependence Monism without adopting these aspects of the monistic worldview.

2.3. The Argument from Gunk

Perhaps Schaffer's most widely discussed argument for priority monism is the Argument from Gunk. This argument, too, admits of several formulations. What follows is a version designed to support Dependence Monism and is based on the one originally presented by Schaffer (2010a: 61–65):

Argument from Gunk

G1) Either Dependence Monism is true or there are some *x*s that the cosmos fully decomposes into and S-depends on, and which don't themselves S-depend on anything

G2) If there are some *x*s that the cosmos fully decomposes into and S-depends on, and which don't themselves S-depend on anything, then those *x*s are simples ("atomistic pluralism")

G3) So, either Dependence Monism is true or atomistic pluralism is [G1, G2]

G4) Possibly, the cosmos is gunky

G5) If possibly the cosmos is gunky, then atomistic pluralism is not necessarily true [analytic consequence of G4]

G6) For any *x*s and *y*, if the *x*s are atoms and *y* is the cosmos then (i) if *y* S-depends on the *x*s, then necessarily for any *u*, if *u* is the cosmos then there are some simples, the *v*s, that *u* S-depends on, and (ii) if the *x*s S-depend on *y*, then necessarily for any simples, the *w*s, there is a *z* that is the cosmos such that the *w*s S-depend on *z*

G7) So, atomistic pluralism is false [G3–G6]

G8) So, Dependence Monism is true [G3, G7)

G1 states a kind of metaphysical foundationalism: there is some level of objects, be it the cosmos or a plurality of smaller things, that don't S-depend on anything. G2 introduces a ban on fundamental "middle levels": if the chains of ontological dependence bottom out anywhere, they bottom out either at the top mereological level (the cosmos) or at the bottom one (mereological atoms) (2010a: 63). G4 states that gunk is possible and therefore (as per G5) atomistic pluralism is possibly false. G6 is a more precise formulation of the idea that as

a "principle of metaphysics", the S-dependence ordering of all the concrete objects is a non-contingent matter.

The Argument from Gunk has been criticized on several grounds. Those who reject G1 usually do so because they see no reason to assume the foundationalist thesis that the chains of S-dependence have to bottom out somewhere.[15] Some question the ban on middle levels instead and argue that some composite objects other than the cosmos are perfectly reasonable candidates to count as foundational.[16] Others (usually not in the context of priority monism) have questioned the possibility of gunk, i.e. G4.[17, 18]

The premise I want to focus on, however, is G6. The standard response to G6 has often been to adopt a kind of metaphysical contingentism and argue that the structure of reality could significantly differ between possible worlds.[19] More specifically, in recent years a

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[15] Schaffer (2003) himself used to argue against this assumption. See also Markosian 2005 and Bliss 2013. Raven (2016) has recently offered a novel way of attacking G1 (or so I interpret his move – his reconstruction of the Argument from Gunk differs from mine): from the claim that some entities are fundamental, we can't infer that some are foundational. What this means for Raven is that a certain group of entities might be "ineliminable" in the sense that a full account of reality must include them, yet fail to be foundational in the sense that there is no "lowest" level at which such entities occur. See also Tahko 2014 on "boring infinite descent".

[16] See Inman 2018: Ch. 3 and Bernstein forthcoming for this line.

[17] See Dorr 2002: 2.4, Williams 2006, Sider 2013.

[18] A related strategy is to argue that if gunk is possible, then so are "junky" structures in which every object is a proper part of something and there is no mereological top level, in which case the cosmos doesn't exist (Bohn 2009a, 2009b). Rather than directly attacking any particular premise of the argument, this objection attempts to undermine its dialectical force: if the possibility of gunk is a reason to doubt that atomistic pluralism is necessarily true, then the possibility of junk is an equally good reason to doubt that Dependence Monism is.

[19] See K. Miller 2009.

number of authors have raised the possibility that whichever side is right in the monism/pluralism debate is only contingently so, and that Dependence Monism is therefore at best contingently true.[20] What has hitherto gone unnoticed is that G6 can be divided into two sub-theses:

> $G6_{Int}$: $\forall xx \forall y$ (xx are atoms & y is the cosmos $\rightarrow$ ((y S-depends on xx $\rightarrow$ $\Box\forall u \forall vv$ (vv are atoms & u is the cosmos $\rightarrow$ u S-depends on vv) & (xx S-depend on y $\rightarrow$ $\Box\forall z \forall ww$ (ww are atoms & z is the cosmos $\rightarrow$ ww S-depend on z))
>
> $G6_{Nec}$: $\forall xx \forall y$ (xx are atoms & y is the cosmos $\rightarrow$ ((y S-depends on xx $\rightarrow$ $\Box\forall u$ (u is the cosmos $\rightarrow$ $\exists vv$ (vv are atoms))) & (xx S-depend on y $\rightarrow$ $\Box\forall ww$ (ww are atoms $\rightarrow$ $\exists z$ (z is the cosmos))))

Put informally, $G6_{Int}$ says that whichever of the cosmos and the set of mereological simples S-depends on the other, the structure of S-dependence will be the same in any world that contains both a cosmos and mereological simples (this thesis is silent on whether *there is* a cosmos and mereological simples in every possible world). We can refer to this idea as "level-internality": S-dependence is level-internal if its direction is fixed between two given

[20] See Siegel 2016, Benocci 2017, and Baron and Tallant forthcoming. Benocci thinks that a modified version of the Argument from Gunk can be saved even if the truth of monism is a contingent matter, for even in that case the *epistemic* possibility of gunk can give us good reasons not to adopt atomistic pluralism, which would amount to "imposing an armchair, a priori constraint on an open empirical question" (2017: 1988). I should note that in the present formulation, only clause (ii) of G6 is needed for the argument to go through. That is, for the argument to be valid it's enough if in the actual world either priority monism or atomistic pluralism is true and if the truth of priority pluralism is a noncontingent matter – clause (i), which states the noncontingency of Dependence Monism, plays no role in the argument. However, I won't press this point here.

mereological levels. By contrast, $G6_{Nec}$ says that whichever of the cosmos and the set of mereological simples S-depends on the other, the mereological level that the dependee belongs to has members in every possible world (note that this thesis is silent about the structure of *S-dependence* in other possible worlds). We can call this second idea "level-necessitation": S-dependence is level-necessitating if its instantiation between two mereological levels guarantees that in every possible world something occupies the level to which the dependees belong.[21]

The distinction between $G6_{Int}$ and $G6_{Nec}$ is important because most philosophers who reject G6 are implicitly focusing on $G6_{Int}$. At least, informal claims to the effect that "the structure of dependence" can vary across possible worlds appear to be primarily concerned with the level-internality of S-dependence. However, I want to focus on $G6_{Nec}$ instead. More specifically, I will focus on the second conjunct of the embedded conditional in it:

($G6_{Nec}$*): If the mereological simples S-depend on the cosmos, then necessarily if there are mereological simples there is also a cosmos

$G6_{Nec}$* is naturally seen as a special case of the following general principle:

(*Mereological Connection*): If the mereological simples S-depend on composite objects of a certain kind K, then necessarily if there are mereological simples there are also Ks

[21] The distinction between $G6_{Int}$ and $G6_{Nec}$ is analogous to the distinction between the internality of grounding and grounding necessitarianism (see Leuenberger 2014). However, these theses concern the grounding relata themselves, rather than the kinds or mereological levels they belong to.

There are general principles other than the Mereological Connection that would allow us to derive $G6_{Nec}$* as a special case; for example, we could replace the principle with a more specific one according to which if mereological simples S-depend on objects at a certain mereological level, then necessarily if there are simples there are also objects at that level. In what follows, however, I will stick with the Mereological Connection, which also leaves room for the view that the word 'cosmos' doesn't mark any particular mereological level but simply refers to a kind of object.

Either way, the discussion in section 1 should make it clear why there is room to reject the Mereological Connection. The principle's application to the cosmos, $G6_{Nec}$*, states that the cosmos's simple parts generically depend on the cosmos, since there could be no simples without some object or other that qualifies as the cosmos. But as we have seen in section 1, S-dependence cannot be generic dependence: there are pairs of objects that plausibly instantiate S-dependence, yet the S-dependent object could exist without there being an object of the S-dependee's kind. For this reason, it's too quick to assume that just because the mereological simples S-depend on the cosmos there has to be a cosmos if there are mereological simples. Of course, the same point applies to the hypothesis that the direction of S-dependence runs in the opposite direction: one can coherently think that the cosmos S-depends on its simple parts but that there could be a cosmos without there being simples. All of these possibilities are compatible with $G6_{Int}$: the possibility of gunk leaves room for a weakened kind of atomistic pluralism according to which any world in which there are atoms is one where the cosmos S-depends on them; likewise, the possibility of junk (cf. footnote 18) is consistent with the view that any world in which there is a cosmos is one where every other object S-depends on the cosmos. The point is only that one could agree that the S-

dependence ordering of objects is in a sense constant across worlds and nonetheless reject the Mereological Connection.

As before, I don't take the above remarks to settle the issue. All I have been trying to show is that those who want to deny the Mereological Connection have options. What would follow if the Mereological Connection were false? For one thing, the Argument from Gunk would then fail. But as before, it's not straightforward what this would imply for the broader monistic project. On the one hand, other arguments might still succeed at establishing Dependence Monism. On the other hand, important parts of the monistic worldview would need to be given up. Below I mention two examples.

First, as Schaffer notes, the Argument from Gunk brings to light an "underlying mereological asymmetry […]: there must be an ultimate whole, but there need not be ultimate parts" (2010a: 64). Obviously, once the Mereological Connection is gone, Dependence Monism won't have this consequence. Second, Schaffer sometimes speaks of the proper parts of the cosmos as mere "abstractions" from the cosmos (2010a: 46–47). This is an elusive claim, but it's natural to think that it at least requires the following to be true: no object can exist without the cosmos existing, whereas for any mereological level below the cosmos, objects may exist without that level existing. In this way, we can conceive of any object in any possible world as a *contraction* of the cosmos, something that would result if we "deleted" part of the cosmos. But there isn't any lower mereological level such that we can conceive of any object in any possible world as an *expansion* of some object at that level.[22] This is because if gunk is possible there can always be objects at some lower mereological level that cannot be recovered as such expansions. Suppose, on the other hand, that

[22] I borrow the terms 'expansion' and 'contraction' from Sider 2007, though Sider uses them differently. See also Fine 2010: 585 (he uses the word 'restriction' instead of 'contraction').

Dependence Monism is true but the Mereological Connection is false. Would this combination of views warrant speaking of the cosmos's proper parts as mere "abstractions" from the cosmos? I don't think so. For if there isn't necessarily a cosmos then it's false that in every possible world every object can be recovered as a contraction of the cosmos.

Once again, the bottom line is clear: there are monistic intuitions that Dependence Monism doesn't by itself vindicate. The Modal Connection doesn't merely serve as an assumption of one of the arguments for the view; it also helps tie Dependence Monism to a richer monistic picture of the world.

3. Dependence Monism and the connecting principles

In the previous section I discussed three arguments for Dependence Monism, along with several monistic desiderata. The upshot so far is that there is a conceptual gap between Dependence Monism and these desiderata. Just how wide is this gap? Above I suggested that each of the Supervenience Connection, the Nomic Connection, and the Modal Connection could conceivably fail. Rejecting a connecting principle would amount to giving up some important piece of the monistic worldview. Nonetheless, someone who rejected a connecting principle could still be a dependence monist, albeit a somewhat non-standard one.

But now consider a much more radical possibility: could one coherently endorse Dependence Monism but reject *all* of the connecting principles? This would indeed be an odd position. It would mean that it's conceivable, for example, that gunk is possible but junk isn't, that the cosmos obeys fundamental laws and has emergent properties, and that submergence is impossible – and yet Dependence Monism is false. And perhaps it's also conceivable that Dependence Monism is true, yet the cosmos isn't guided by fundamental

laws, has parts with submergent properties, and could even fail to exist. These combinations of views are odd because they detach Dependence Monism from virtually every aspect of the view that made us care about it in the first place.

While Dependence Monism could conceivably come apart from any individual connecting principle, I doubt that it could conceivably come apart from all of them at once. There is an issue about how this point is best phrased; I don't mean to assert that conjoining Dependence Monism with the negation of each connecting principle would result in a conceptual falsehood. I do think, however, that if all the connecting principles were false, Schaffer's notion of S-dependence would be virtually useless. There are two reasons for this. First, the notion shouldn't float entirely free from modal, mereological and nomic notions that already earned their keep in metaphysics. While in section 1 I granted Schaffer the notion of S-dependence without requiring an exact match with notions of grounding or ontological dependence already on the scene, it does seem fair to demand from theses formed with the help of this concept to rule out views on which the actual world is nothing like what would fit a broadly monistic view.

The second reason we shouldn't remain open to the possibility that all of the connecting principles are false is epistemic. It appears to be a shared assumption in most of the literature on priority monism, on which monists and pluralists tend to agree, that facts about supervenience, composition, necessity, nomic subsumption and the like are evidentially relevant to facts about S-dependence. If we want to avoid skepticism about the order of S-dependence in the actual world, we cannot remain open to the possibility of

Dependence Monism coming apart from *most* of the monisic worldview, even if it can come apart from certain aspects of it.[23]

So there are constraints on the extent to which the notion of S-dependence can come apart from the connecting principles. For any individual connecting principle, we should be open to the possibility that *that* principle is false. But we shouldn't be open to the possibility that they are *all* false. This would make the core notion of S-dependence utterly mysterious and would make questions about S-dependence virtually intractable. We are thus saddled with the delicate task of finding a connection between S-dependence and the Supervenience, Nomic and Mereological Connections that neither severs the target notion of S-dependence from other metaphysical relations entirely nor anchors it to them so tightly as to leave no room for even moderately revisionary views. In the next section, I will propose an account of S-dependence that satisfies this twofold desideratum.

4. The graded view of S-dependence

What we need is an account of S-dependence that leaves room for the falsity of some, but not all, of the connecting principles. How can we achieve this goal? One option is to go *pluralist*: there are several more specific types of S-dependence, perhaps each satisfying one of the connecting principles. On this pluralist view, to ask whether the cosmos S-depends on its proper parts or the other way round is to ask the wrong question. The right questions are whether it $\text{depends}_{\text{supervenience}}$, $\text{depends}_{\text{nomic}}$ and $\text{depends}_{\text{mereological}}$ on its parts, where 'S-$\text{dependence}_{\text{supervenience}}$', 'S-$\text{dependence}_{\text{nomic}}$' and 'S-$\text{dependence}_{\text{mereological}}$' stand for species of S-

[23] See Bennett 2017: 141–3 for a somewhat analogous argument against a certain kind of primitivism about what she calls "building relations" and Kovacs 2018: 497–8 for a similar argument for reductionism about ontological dependence.

dependence that satisfy appropriately indexed versions of the Supervenience, Nomic and Mereological Connections. Thus, Dependence Monism is best understood as a disjunctive thesis: all concrete objects other than the cosmos S-depend$_{\text{supervenience}}$, S-depend$_{\text{nomic}}$ or S-depend$_{\text{mereological}}$ on the cosmos. Each aspect of the monistic worldview corresponds to one disjunct of Dependence Monism thus understood.[24]

Unfortunately, this view turns to be too inflexible to satisfy our earlier stated desiderata. Suppose the cosmos has emergent properties but none of its proper parts has submergent ones. According to the view presently on offer, this would straightforwardly entail that the proper parts of the cosmos S-depend$_{\text{supervenience}}$ on the cosmos. Then one disjunct of Dependence Monism is true, and so Dependence Monism is true. Surely, though, it isn't *that* easy to establish Dependence Monism. Everyone agrees that facts about emergence and submergence bear on the monism/pluralism debate, and that if they are the way Schaffer thinks, they provide some evidence for Dependence Monism. But not even Schaffer seems to think that these facts *settle* the debate all by themselves.

One possible alternative to the pluralist account sketched above is what we could call the "indexed" version of Dependence Monism.[25] According to the indexed version, S-dependence isn't a disjunction of specific dependence relations. Rather, there is no generic notion of S-dependence to speak of, and Dependence Monism bifurcates into more specific

[24] On this kind of view, then, there are several kinds of S-dependence, much like according to many theorists of ontological dependence there are multiple species of ontological dependence (Lowe 1994, Correia 2008, Koslicki 2012) and according to certain accounts of grounding and determination relations, there are a variety of "building" (Bennett 2011, 2017) or "small-g" grounding relations (Wilson 2014).

[25] Thanks to an anonymous referee for drawing my attention to the indexed version.

theses such as $\text{Dependence}_{\text{supervenience}}$ Monism, $\text{Dependence}_{\text{nomic}}$ Monism and $\text{Dependence}_{\text{mereological}}$ Monism.

The indexing view is not too far from the view I will eventually endorse. Its main motivation is the idea that the contemporary debate over priority monism has been overly concerned with the official monistic thesis, whereas the real issue is whether specific aspects of the monistic view are true, i.e. whether certain patterns of relations between the cosmos and its parts are instantiated. As will be clear toward the end of this paper, I ultimately share this conviction. However, the indexing view treats the aspects in question as varieties of Dependence Monism or perhaps disambiguations 'Dependence Monism', and I'm not prepared to go quite this far. This commitment saddles the indexing view with a problem very similar to the one we encountered with the simple pluralist view. For if each relation mentioned in the connection principles corresponds to an indexed version of Dependence Monism, then the presence of each relation by itself settles the debate over Dependence Monism a*ccording to the relevant notion of S-dependence*. For example, if the cosmos is the only object guided by fundamental laws, this *conclusively shows* that $\text{Dependence}_{\text{nomic}}$ Monism is true but *does nothing* to support the other disambiguations of Dependence Monism. This reframes the original debate in a strongly revisionary way, since most participants (including Schaffer) would presumably take the Argument from Nomic Integrity to give some (perhaps powerful, but inconclusive) evidence for Dependence Monism.

For these reasons, I'm not persuaded that either the simple pluralist account or its indexed variant gives us the best way to make sense of the debate over Dependence Monism. We need a more nuanced account. The following strikes me as a promising approach. Each instance of S-dependence needs to fulfill *most*, but not all, of the conditions described by the connecting principles. This view is entirely compatible with a notion of S-

dependence that is conceptually (although quite plausibly not metaphysically) unified; we don't need to posit a different kind of S-dependence for each of the connecting principles. Instead, we can replace them with the following "tilting" principles:

> (*Supervenience Tilt*) If the properties and relations of proper parts of an object O supervene on the properties of O but not *vice versa*, then *this counts in favor of its being the case that* O's proper parts S-depend on O
>
> (*Nomic Tilt*) If an object evolves by the fundamental laws, *this counts in favor of its being the case that* there is no other object on which it S-depends
>
> (*Mereological Tilt*): If the mereological simples S-depend on composite objects of a certain kind, K, *this counts in favor of its being the case that* necessarily if there are mereological simples there are also Ks

Rather than tying ontological dependence to other notions through strict conceptual links, these principles merely state that certain conditions count in favor of, or against, Dependence Monism. Now, that certain relations can count for or against S-dependence implies that those relations can be meaningfully compared and that S-dependence itself is something like a weighed total of them. But why should we think that?[26] One thing to note is that the relations in question are all dependence-*like*. On this, I agree with the alternative hypotheses considered above: there are intuitive conceptual links between the modal, mereological and nomic connections mentioned by the Supervenience, Nomic and Mereological Connection on the one hand, and at least a kind of dependence on the other.

[26] Thanks to an anonymous referee for pressing me on this.

Moreover, in light of the lack of semantic evidence for the systematic ambiguity of 'S-dependence', there is some reason to think that these dependence-like notions are connected not only in name. They seem to support (at least to some extent – not conclusively, as we have seen) the S-dependence of the cosmos's parts on the cosmos, and in each case in the same sense of 'S-dependence'. It's worth noting that the kind of view I'm suggesting here is structurally similar to Kovacs's (2018) "Dependence Deflationism", according to which ontological dependence is a weighed total of mereological, modal and set-theoretic relations. However, there is an important respect in which the view I'm offering here is *more* plausible than Dependence Deflationism. Ontological dependence is a relation with an old historical pedigree. Different authors in different historical periods have meant a variety things by it, which casts some doubt on any attempt at a reductive characterization of the sort Kovacs seeks (accordingly, he offers it in a revisionary spirit). By contrast, the situation is much cleaner with S-dependence, which is not subject to any conceptual constraint other than having to come as close as possible to being the relation that is fit for the theoretical role to which Schaffer assigned it. For this reason, given that what best fills this role seems to be a weighed and graded notion, it's much less arbitrary than it would be in the case of plain old ontological dependence to *stipulate* that 'S-dependence' refers to whichever relation satisfies the tilting principles.

Even if we accept the general idea of a graded relation of S-dependence, unfortunately I cannot offer any straightforward measure to weigh the tilting principles against one another. It would be simplistic to insist that a true dependence monist is committed to accepting at least two of them, not least because the present paper's focus on the Supervenience, Nomic and Mereological Connections is an artifact of singling out three of Schaffer's numerous arguments for monism. It's better to think of the core notion of S-dependence as itself

coming in degrees: the cosmos may be *more* or *less* S-dependent on its proper parts (or vice versa). We might want to draw a line above which there is enough S-dependence to say that the proper parts of the cosmos S-depend on the cosmos simpliciter and Dependence Monism is true, but any particular place to draw the line would seem fairly arbitrary.

To be clear, I don't claim that if the relation between S-dependence and other metaphysical relations is captured by the aforementioned "tilting" principles, then S-dependence *must* be graded. Rather, I claim that the graded view is the best hypothesis about the notion at issue in the debate over priority monism, given the considerations that bear on the debate and their evidential weight. Let me explain.

Treating S-dependence as a graded notion has the advantage of eliminating the gap between Dependence Monism and the monistic worldview since, as it turns out, *both* could be realized to higher and lower degrees. Proper parts of the cosmos could S-depend on the cosmos without every aspect of the monistic view being true, but then the proper parts of the cosmos S-depend on the cosmos *less* than they do according to a more full-blooded version of monism. Relatedly, my proposal goes a long way to providing an attractive epistemology of S-dependence. Modal, mereological and nomic facts are evidentially relevant to whether the cosmos S-depends on its proper parts. But unlike on the pluralist view mentioned above, it doesn't follow that any particular modal, mereological or nomic fact by itself *settles* the debate. Rather, each such fact establishes only a certain degree of S-dependence. Moreover, the graded view adopts the main insight of the indexing view at the cost of less radical conceptual revision. For according to both the indexing view and graded view, what really *matters* in the debate over priority monism is the truth of various specific theses about modal, mereological and nomic relations. But whereas the indexing view is in effect a kind of error theory about 'S-dependence', the graded view is more conciliatory in

offering a deflationary interpretation of the notion. And as a general rule, I think we should prefer deflationary accounts of metaphysical concepts to error-theoretic ones unless there is a special reason to do otherwise.

In sum, the graded interpretation of S-dependence reconciles two powerful intuitions. On the one hand, the S-dependence of the cosmos's proper parts on the cosmos shouldn't by itself commit us to any particular thesis about supervenience, composition or the laws of nature; nor should any thesis about these notions by itself commit us to Dependence Monism. The connection between these views should be looser than that. But on the other hand, whether Dependence Monism is true cannot be entirely independent of the supervenience, mereological and nomic facts. My account does a good job respecting both intuitions, and I know of no rival account that does similarly well.[27]

5. Concluding remarks

Above I have argued for a particular account of the link between S-dependence and supervenience, mereological and nomic connections. According to the account, for Dependence Monism to be true, the cosmos needs to bear a relation to its proper pars that satisfies a weighed total of the antecedents of the "tilting" principles. Moreover, S-dependence is not an all-or-nothing relation but something there could be more or less of. This way, the official thesis of Dependence Monism turns out to be an accurate statement of the monistic worldview: it's still the view that every concrete object other than the cosmos S-

[27] I already mentioned Kovacs's deflationary account of ontological dependence as a view structurally similar to mine. Another important predecessor is Koslicki's account substance. Koslicki (2018: Ch. 6–7) allows for degrees of substancehood both on the popular independence and on the (according to her superior) unity criteria of substancehood. The former criterion would also lead to a graded notion of dependence.

depends on the cosmos, but the degree to which these objects S-depend on the cosmos is a function of how much of the broader monistic worldview is realized.

This account of S-dependence creates some pressure to re-evaluate what is at stake in the monism-pluralism debate. If the core notion of S-dependence works the way I suggested, the line between packages of views that count as variants of Dependence Monism and packages that don't is bound to be somewhat arbitrary. If this is how things stand, then excessive focus on Dependence Monism itself (or other formulations of priority monism) is misplaced. Instead, we should directly ask whether the cosmos can have emergent and submergent properties, whether it's the only thing that falls under fundamental laws, whether the world necessarily has a mereological top and a mereological bottom level, and perhaps a few additional questions that are often taken to be instrumental in settling the monism/pluralism debate. These are the questions that ultimately matter; once we managed to answer them, we know everything we wanted to know when we began to investigate priority monism.[28]

[28] [Acknowledgments omitted]

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