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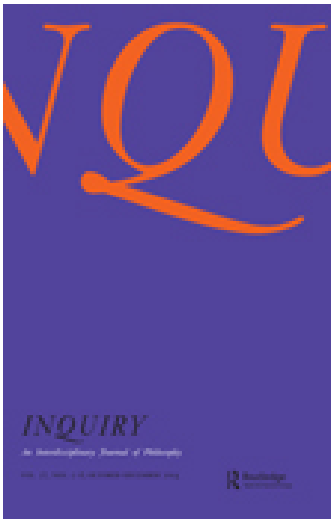

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No Work for a Theory of Grounding

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No Work for a Theory of Grounding

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ABSTRACT *It has recently been suggested that a distinctive metaphysical relation — 'Grounding'—is ultimately at issue in contexts in which some goings-on are said to hold 'in virtue of', be (constitutively) 'metaphysically dependent on', or be 'nothing over and above' some others. Grounding is supposed to do good work (better than merely modal notions, in particular) in illuminating metaphysical dependence. I argue that Grounding is also unsuited to do this work. To start, Grounding alone cannot do this work, for bare claims of Grounding leave open such basic questions as whether Grounded goings-on exist, whether they are reducible to or rather distinct from Grounding goings-on, whether they are efficacious, and so on; but in the absence of answers to such basic questions, we are not in position to assess the associated claim or theses concerning metaphysical dependence. There is no avoiding appeal to the specific metaphysical relations typically at issue in investigations into dependence—for example, type or token identity, functional realization, classical mereological parthood, the set membership relation, the proper subset relation, the determinable/determinate relation, and so on—which are capable of answering these questions. But, I argue, once the specific relations are on the scene, there is no need for Grounding.*

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I. Introduction

It has recently been suggested that a distinctive relation—call it ('big-G') 'Grounding'—is at issue in contexts in which some entities, propositions or facts are claimed to 'metaphysically depend on' (in a constitutive rather than causal sense), 'hold in virtue of', be 'nothing over and above', or be 'grounded in' some others.[1]

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[1]Notably, in Fine, 'Question of Realism'; Schaffer, 'On What Grounds What'; and Rosen, 'Metaphysical Dependence'. See also, for example: Sider, *Writing the Book of the World*; Raven,

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Why posit a distinctive relation (or relations[2]) of Grounding as holding between entities, propositions or facts, or as I will gloss the relata, 'goings-on'?[3] Focusing on Fine, Schaffer and Rosen—as I will do throughout—and synthesizing a bit, the stated motivation is as follows. To start, contemporary metaphysicians have (or should) come to realize that their concern is not just with Quine's question of what there is, but with Aristotle's question of how what there is, is structured—with how non-fundamental goings-on metaphysically depend on fundamental (or more fundamental) goings on:

> On the now dominant Quinean view, metaphysics is about what there is. Metaphysics so conceived is concerned with such questions as whether properties exist, whether meanings exist, and whether numbers exist. I will argue for the revival of a more traditional Aristotelian view, on which metaphysics is about what grounds what. (345) [. . .] It is about the structure of the world. It is about what is fundamental, and what derives from it.[4]

As common use of the above idioms of metaphysical dependence suggests, concern with dependence, understood as tracking 'what is fundamental, and what derives from it', has not been entirely neglected; but as something of an empiricist hangover, these idioms have been interpreted in semantic,

'In Defence of Ground'; Trogdon, 'Introduction to Grounding'; Bennett, *Making Things Up*; and the contributions to Correia and Schneider, *Metaphysical Grounding* (see esp. Correia and Schneider, 'Grounding'; Audi, 'Clarification and Defense'; Fine, 'Guide to Ground'; Koslicki, 'Varieties of Ontological Dependence'; Schaffer, 'Grounding, Transitivity, and Contrastivity'). A good source for historical references on the topic of a general relation of ontological dependence going beyond the usual suspects (including Lowe, *Possibility of Metaphysics*; Witmer, Butchard, and Trogdon, 'Intrinsicality without Naturalness'; and Schneider, 'Certain Kind of Trinity') is Trogdon, 'Introduction to Grounding'.

[2]Fine allows that there are multiple Grounding relations, and maintains that 'we should understand the generic relation as some kind of "disjunction" of the special relations'; moreover, on his view each special relation 'comes in different 'flavors''. Fine, 'Guide to Ground', 4, 16.

[3]Proponents disagree about the relata of Grounding: for Schaffer these are entities of any category; for Fine these are propositions that are typically but need not be true (though he also refers to these as 'facts', and lately favors taking the relata to be sentences). Schaffer, 'On What Grounds What'; Fine, 'Question of Realism'. For Rosen these are facts, understood as 'structured entities built up from worldly items [along lines of] true Russellian propositions'. Rosen, 'Metaphysical Dependence', 4 (though see Section V.ii for discussion of how Rosen is led to depart from traditional Russellianism). Motivations for taking the relata to be representational reflect a conception of Grounding as entering into explanations, suited to be reasoned with (as in Fine's 'logic of ground'). My view is that in specifying the relata relevant to grounding explanations, metaphysicians should talk about the worldly goings-on directly; compare causation and causal explanation, where theorizing cuts to the metaphysical chase; Schaffer makes the same point. Schaffer, 'Grounding, Transitivity, and Contrastivity', 2. That said, given the worldly nature of Fine's and Rosen's propositional facts, and given that grounding relations between worldly entities bring facts/Russellian propositions in their wake, there are presumably translation strategies between these accounts; *ibid.*.

[4]Schaffer, 'On What Grounds What', 379. See also Rosen, 'Metaphysical Dependence, 109.

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epistemic, or modal terms. Interpretations in semantic or epistemic terms are, however, problematic and beside the point:

> [R]eduction should be construed as a metaphysical rather than as a linguistic or a semantical relation ... we need to restore ourselves to a state of metaphysical innocence in which reduction is seen to concern the subject-matter itself and not the means by which it might be represented or cognized.[5]

Modal/correlational relations (supervenience, existential counterfactual dependence) are properly metaphysical, but too coarse-grained to do the work of characterizing dependence. The broader moral of Fine's classic 1994 paper is that modal connection, even if necessary for metaphysical dependence, is not sufficient for this: Socrates is necessarily accompanied by, but does not metaphysically depend on, his singleton.[6] More generally, merely modal relations fail to appropriately differentiate views about what depends on what:

> [S]upervenience analyses of grounding all fail (cf. McLaughlin and Bennett 2005: S3.5).... There have been other attempts to analyze grounding, including those centered around existential dependence counterfactuals ... I know of none that succeed.[7]

> One ... reason for regarding the idioms of dependence with suspicion is the thought that while these idioms cannot quite be defined in straightforward modal terms, the idioms are always dispensable in practice in favor of the idioms of modal metaphysics—entailment, supervenience, the apparatus of possible worlds, and so on—notions for which we have elaborate theories, and which are in any case more familiar. And yet it seems to me that this is not true at all. Consider ... the debate over legal positivism. [The positivist and the antipositivist] will accept the same supervenience claims. And yet they differ on an important issue, viz., whether the moral facts play a role in making the law to be as it is.[8]

Properly characterizing metaphysical dependence requires a metaphysical relation that is more than merely modal (including counterfactual). Nor can causal or other diachronic relations do the trick, as Fine here implies:

[5]Fine, 'Question of Realism', 2001, 10. Note that Fine's focus on reductive means of characterizing metaphysical dependence need not be seen as exclusive—as, for example, non-reductive physicalists think.
[6]Fine, 'Essence and Modality'.
[7]Schaffer, 'On What Grounds What', 364.
[8]Rosen, 'Metaphysical Dependence', 113. See also Fine, 'Guide to Ground', 37.

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> A number of philosophers have recently become receptive to the idea that, in addition to scientific or causal explanation, there may be a distinctive kind of metaphysical explanation, in which explanans and explanandum are connected, not through some sort of causal mechanism, but through some form of constitutive determination.[9]

So, it is suggested, we should posit a distinctive (and, reflecting the failures of supervenience, hyperintensional[10]), relation (or relations) of Grounding underlying the idioms of metaphysical dependence. Indeed, some proponents of Grounding claim that Grounding is not just distinctive, but primitive:[11]

> Grounding should rather be taken as *primitive*, as per the neo-Aristotelian approach (cf. Fine 2001: 1). Grounding is an unanalyzable but needed notion—it is *the primitive structuring conception of metaphysics*.[12]
>
> [T]here is no prospect of a reductive account or definition of the grounding idiom: We do not know how to say in more basic terms *what it is* for one fact to obtain in virtue of another. So if we take the notion on board, we will be accepting it as primitive … I begin with the working hypothesis that there is a single salient form of metaphysical dependence to which the idioms we have been invoking all refer ….[13]

Of course, there is a cost to admitting any distinctive relation, and more so if the relation is primitive; but proponents take the cost of Grounding to be well paid, as allowing metaphysical dependence to be characterized in an accurate and illuminating way.

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[9]Fine, 'Guide to Ground', 38. See also Audi, whose 'argument for Grounding' proceeds from the premises (1) If one fact explains another, then the one plays some role in determining the other, and (2) There are explanations in which the explaining fact plays no causal role with respect to the explained fact, to the conclusion that (3) There is a non-causal relation of determination. Audi, 'Clarification and Defense'.

[10]Schaffer is explicit that by his lights, Grounding is hyperintensional; and though Fine and Rosen do not explicitly couch their posit in these terms, other of their commitments (e.g. Fine's supposition that metaphysically necessary connection is necessary, though not sufficient, for metaphysical dependence) suggest that they, too, take Grounding to be hyperintensional. My own view is that metaphysically necessary connection is not necessary for metaphysical dependence; see Wilson, 'Non-Reductive Realization'. For further discussion of this issue, see Trogdon, 'Introduction to Grounding'.

[11]Here too (see note 3) I understand talk of *Grounding*'s being 'primitive' in metaphysical, not representational terms; indefinability of representations is not (idealism and the like aside) to the point.

[12]Schaffer, 'On What Grounds What', 364 (emphasis in original).

[13]Rosen, 'Metaphysical Dependence, 113–14 (emphasis in original).

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Now it is worth noting, just to keep the historical and dialectical record straight, that this just-so story is a fiction, judging from what metaphysicians actually do. *Pace* Schaffer, Quine's view of metaphysics (understood as eliding concern with dependence) is not the dominant view of what metaphysics is. *Pace* Rosen, it is not the case that the idioms of metaphysical dependence have been widely dismissed as unintelligible or obscure, except as suppressed in favor of modal notions. *Pace* Fine, it is not the case that philosophers have only recently become receptive to the idea that there are forms of metaphysical explanation different from scientific or causal explanation.

Attention to metaphysical dependence is not new: many, perhaps most, contemporary metaphysicians have spent their careers investigating forms of such dependence, typically assumed to go beyond merely modal or causal notions, in service of developing or assessing comprehensive theses such as physicalism (with the status of mentality being a special focus), or of developing or assessing accounts of some phenomena—events, properties, possible worlds, persons, objects, laws, causes, artifacts, institutions, and seemingly indeterminate states of affairs, among many others—in terms of some others presumed (as a working, speculative, or antagonistic hypothesis) to be more fundamental. These investigations take the idioms of metaphysical dependence ('in virtue of', 'nothing over and above', 'grounded in') to be schematic placeholders for *specific metaphysical relations* (again, going beyond merely modal or causal notions) that we have independent reason to accept, and which serve, against the backdrop of some presumed more fundamental base, to characterize diverse forms of metaphysical dependence in a genuinely explanatory and illuminating way. These specific relations—call them ('small-g') grounding relations—include type identity, token-but-not-type identity, functional realization, the classical mereological part–whole relation, the causal composition relation, the set membership relation, the proper subset relation, and the determinable–determinate relation, among others.[14] To be sure, the suggestion that there is a distinctive relation or relations of Grounding *is* new. But—again, just to be clear—the usual stated motivations for positing Grounding make no sense: it is a myth that contemporary metaphysicians ignore metaphysical dependence, and given the plethora of specific dependence relations on offer, there is not even a prima facie route from the failure of modal or diachronic relations to serve as grounding relations to the posit of any distinctive Grounding relation(s).[15]

[14]In Section II.i I provide specific case studies of how various of these relations are deployed in contexts relevant to formulating physicalism or naturalism, and to providing accounts of dispositions.

[15]If this claim is not obvious, then beyond the case studies I provide in Section II.i, I suggest searching under the aforementioned topics and relations in *PhilPapers*; there are thousands of confirming instances. The dialectical point I am making here, while prefatory to the main argumentative thrust of this paper, is important for a number of reasons, not least because the just-so story elides extensive swathes of significant literature on metaphysical dependence (and, relatedly, fundamentality).

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Some better reason to posit Grounding is required. In this paper I consider the most salient alternative motivations for positing Grounding (extracted from the literature and from discussions with proponents of Grounding, or otherwise offered on behalf of such proponents), either instead of or in addition to the many specific 'small-g' grounding relations already in the metaphysician's toolkit, and I argue that (as with the just-so story, above) none of these motivations for positing Grounding withstands scrutiny.

I start, in Section II, by arguing that Grounding, like supervenience, is too coarse-grained to do the work of appropriately characterizing metaphysical dependence on its own, failing to distinguish importantly different (eliminativist, reductionist, non-reductionist, emergentist) accounts of such dependence, not to mention 'small-g' variations on these themes. The problem here is not just that claims of Grounding (failure of Grounding) leave open some interesting questions; it is that such claims admit of such underdetermination —about whether the dependent goings-on exist, are reducible or rather distinct from the base goings-on, are efficacious, and so on—that even basic assessment of claims of metaphysical dependence, or associated views, cannot proceed by reference to Grounding alone. As such, investigations into metaphysical dependence cannot avoid appealing to the specific 'small-g' grounding relations (again: type or token identity, functional realization, the classical mereological part–whole relation, the causal composition relation, the set membership relation, the proper subset relation, the determinable–determinate relation, etc.) that *are* capable of answering these crucially basic questions about the existential, ontological, metaphysical, and causal status of metaphysically dependent goings-on.

The remaining sections concern the three most salient motivations for positing Grounding *in addition to* the specific metaphysical relations. In Section III, I consider whether Grounding is needed as tracking a coarse-grained but still useful level of investigation; I argue not, for the suggested coarse-grained uses plausibly reflect either contingent pragmatic facts about or schematic reference to the specific relations, as opposed to a distinctive metaphysical joint. In Section IV, I consider whether Grounding is needed to fix the direction of priority associated with the specific metaphysical relations; I argue not, for (drawing upon the usual metaphysical methodology) we can establish the direction of priority (first, as between fundamental and non-fundamental goings-on and, second, as between non-fundamental goings-on) without any appeal to Grounding. In Section V, I consider whether Grounding is needed as a terminological, metaphysical, or formal unifer of the 'small-g' grounding relations. I argue not, for first, even if the specific relations were so unified, this in itself would not motivate the posit of a distinctive, much less primitive, metaphysical relation (compare the unifying function of determinables, typically supposed to be reducible to determinates); and, second, there is little terminological, metaphysical, or formal unity among the specific relations. And if formal or metaphysical unity is

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gained by multiplying notions of Grounding, as per Fine's ecumenical view, one is pushed back towards the specific relations—so far that the costs of positing the distinctive relation(s) are not worth paying.

Though I primarily focus on the accounts of Fine, Schaffer and Rosen as worthy foils, the concerns and criticisms about Grounding to follow do not, so far as I can tell, crucially depend on specific details of these accounts. I conclude (Section VI) that there is no work for the posit (or associated theory) of Grounding to do.

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II. The Uselessness of Grounding Alone for Investigations into Metaphysical Dependence

Proponents of Grounding claim that its posit can do good philosophical work. As above, the notion, properly interpreted, is supposed to enable the tracking of metaphysical dependence relations holding generally between entities (on Schaffer's account) or propositional facts (on Fine's and Rosen's accounts) associated with certain domains, with an eye ultimately to elucidating the structure of reality in general. So, as Schaffer says, Grounding is supposed to enable employment of the 'Aristotelian method' of doing metaphysics, which is 'to deploy diagnostics for what is fundamental, together with diagnostics for grounding'; it is supposed to allow us to 'limn'—that is, illuminate—metaphysical dependence, in a way that respects concern not just with *whether* an entity exists, but with '*how* it exists'.[16] Fine also sees Grounding as playing a methodological role; it is supposed to provide resources for 'ascertaining what is or is not factual or what does or does not reduce to what',[17] with an eye to determining 'the viability of a realist or anti-realist stand on any given issue'.[18] Moreover, as Rosen

[16]Schaffer, 'On What Grounds What', 351–2.

[17]Fine, 'Question of Realism', 13.

[18]Fine, 'Guide to Ground', 42. There are tricky interpretive questions about Fine's (in Fine, 'Question of Realism') use of 'realist' and 'anti-realist', as characterizing metaphysical views. On the standard understanding (see Miller, 'Realism'), if one is anti-realist about the Xs one (at least) denies the (real) existence of the Xs. This does not entirely comport with Fine's stated aim of making sense of metaphysical anti-realism, associated with conceptions of the real as the *factual* and the (ontologically) *irreducible*, respectively; for while non-factualist positions (expressivism, eliminativism) are anti-realist in the standard sense, reductionists are realists in the standard sense (the reducible being as real as that to which it is reduced). Fine admits that 'Many philosophers do not take reduction to have antirealist import' ('Question of Realism', 4, note 2), but since ontological reduction involves some or other identity claim (forcing the existence of the reducible) it is unclear, on the standard understanding, whether there are any anti-realist reductionists. On what appears to be Fine's alternative understanding, if one is anti-realist about the Xs, then one (at least) denies that the Xs are fundamental. Hence it is that, though Fine ultimately characterizes the real in primitive terms, nonetheless attention to Grounding ('nothing more than') claims can, Fine maintains, illuminate and help legislate realist/anti-realist disputes, in assisting in the determination of what is and is not fundamental. A 'non-fundamentalist' understanding of anti-realism makes (terminologically confusing and

emphasizes, Grounding is supposed to make sense of the idioms of metaphysical dependence, and the distinctive (constitutive rather than causal) sense of dependence at issue in contexts deploying these idioms. Hence Rosen suggests, after giving some examples in which the idioms of dependence appear to be intelligibly employed, that 'it would be very good if these notions were intelligible, for we would then be in a position to frame a range of hypotheses and analyses that might otherwise be unavailable, and which may turn out to be worth discussing',[19] and he offers a formulation of naturalism in terms of Grounding (to be considered presently) as a case in point.

But Grounding cannot do the work proponents of Grounding want it to do. For Grounding, like supervenience, is too coarse-grained to characterize appropriately metaphysical dependence on its own—indeed, admits of such underdetermination that even basic assessment of claims of metaphysical dependence, or associated views, cannot proceed by reference to Grounding alone. Doing the job requires appeal to the 'small-g' grounding relations that have been traditionally appealed to in investigations into metaphysical dependence—but then, I argue in later sections, we do not need Grounding.[20]

II.i. Grounding and metaphysical underdetermination

Rosen's Grounding, or 'in virtue of', formulation of naturalism is a salient case in point. Rosen says:

> [F]or the naturalist, every normative fact and every intentional fact is grounded in some constellation of non-normative, non-intentional facts, and if we take the 'in virtue of' idiom for granted, we can say this exactly. Every fact p, we may say, is associated with a *tree* that specifies the facts in virtue of which p obtains, the facts in virtue of which these facts obtain, and so on. A path in such a tree is *naturalistic* when there is a point beyond which every fact in the path is non-

overly broad) room for reductive anti-realism, as the view that Xs exist, but are not fundamental (a claim also, confusingly, endorsed by non-reductivists, as in the physicalism debates); it also makes sense of non-factualist anti-realism, as the view that Xs are neither fundamental nor Grounded in the fundamental. One question about the target application of Fine's alternative conception reflects that reductionist ontological views are identity-based; hence if Grounding is to play a role in illuminating reductive anti-fundamentalism, then Grounding must be compatible with identity. I am fine with that, but proponents of Grounding typically are not; see Section V.ii for further discussion.

[19]Rosen, 'Metaphysical Dependence', 111.

[20]It is worth noting that the concerns raised in this and future sections do not hinge on any general complaints about general notions. As I periodically track along the way, a general relation of Causation (should anyone care to posit such a relation) is not subject to the difficulties facing Grounding.

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> normative and non-intentional. A tree is naturalistic when every path in it is naturalistic. Metaphysical naturalism is then the thesis that every fact tops a naturalistic tree.[21]

This is a pretty picture. What work is the appeal to Grounding doing?

One might think that it is potentially doing *some* work. The main problem with using supervenience to characterize metaphysical dependence of the nothing-over-and-above variety is that even metaphysical supervenience is compatible with clear over and above-ness.[22] Consider, for example, a consistent Malebranchean God who brings about, with metaphysical necessity, certain mental states upon the occurrence of certain physical states; here the mental states metaphysically supervene on but are clearly over and above the physical states. Or consider, for another example, a view of the sort endorsed by certain British Emergentists,[23] according to which strongly emergent phenomena (again, certain mental states being paradigmatic) are over and above physical states, notwithstanding that the latter bring about the former with metaphysical necessity.[24] A Grounding claim, explicitly registering that some goings-on are or are not Grounded in—are or are not nothing over and above—some others (at or below a certain level of complexity, in cases of infinite descent) does not have this particular difficulty, since it effectively stipulates nothing over and above-ness.

But two problems remain. First, though Grounding does better than supervenience in one respect, it does worse in another. Consider again the case of robustly emergent mental states. Since these are over and above physical states, they are not Grounded in physical states. But according to the robust emergentist, emergent mental states are nonetheless *dependent* on physical states.[25] Exactly how is a matter of

[21]Rosen, 'Metaphysical Dependence', 111–12 (emphasis in original).

[22]See Schiffer, *Remnants of Meaning*; Kim, 'Supervenience'; Heil, *Nature of True Minds*; Horgan, 'From Supervenience to Superdupervenience'; Wilson, 'Supervenience-based Formulations'. The examples to follow are drawn from the latter paper.

[23]For example, Broad, *Mind and its Place*.

[24]I argue that robust emergentism is both coherent and naturalistically acceptable, when interpreted as involving the coming into play of a new fundamental interaction upon the occurrence or instantiation of certain complex states (this is one way of characterizing the traditional understanding of robust emergence as involving both dependence and fundamentality); and I argue that various philosophical or scientific commitments (e.g. a view on which properties are essentially individuated by certain systems of laws, or holism about fundamental interactions) would, if held, support taking robustly emergent goings-on to supervene with metaphysical necessity on physical goings-on. Wilson, 'Supervenience-based Formulations' (and elsewhere). This discussion (see also other citations in note 25) is relevant to assessing Bennett's claim that 'independence is a—the—central aspect of our notion of fundamentality'. Bennett, *Making Things Up*.

[25]See, for example, McLaughlin, 'Rise and Fall'; Wilson, 'Supervenience-based Formulations'; Barnes, 'Emergence and Fundamentality'.

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further commitments,[26] but there is nothing to prevent this dependence from being of the metaphysical variety, even if robustly emergent states do not *completely* metaphysically depend on physical goings-on. The holding of this sort of interesting relation would, presumably, be an important fact about the structure of reality, but it is one that cannot be characterized by appeal to Grounding alone, for Grounding—at least as presented as the proper target of 'in virtue of' idioms and the like—conflates over and above-ness with absence of metaphysical dependence.[27] Grounding, on its own, cannot distinguish between dependent and independent over and above goings-on, and so is unable to characterize appropriately metaphysical structure.[28]

Second and more importantly, Grounding alone leaves open questions that are crucially relevant to characterizing metaphysical dependence and the structure of reality.

To prefigure: I start by noting that Grounding (failure of Grounding) claims leave open important ontological, metaphysical and causal questions about Grounded (non-Grounded) goings-on—questions that are the usual target of investigations into metaphysical dependence, and which the 'small-g' grounding relations successfully answer. This underdetermination will highlight just how uninformative Grounding claims are, by way of contrast with the detailed illumination to be gained by appeal to the specific relations. But the deeper concern, to be developed in the remainder of this section, is not just that Grounding (failure of Grounding) claims leave some interesting questions

[26]Sider (pers. comm.) suggested that a proponent of Grounding could make sense of dependent over and above goings-on by giving an account of the dependence in purely modal terms, then adding a claim of such dependence to the claim of (failure of) Grounding. But first (as is a common theme in this paper), one should not build controversial assumptions (e.g. that the notion of dependence at issue in robust emergence is to be understood in purely modal terms) into general resources for metaphysical theorizing. And, second, this 'supplementary' strategy undermines the motivation for Grounding according to which supervenience is too coarse-grained to characterize appropriately metaphysical dependence; for when supervenience is appropriately supplemented (e.g. by claims of conceptual entailment, as in Chalmers, *Conscious Mind*), it too can make finer-grained distinctions.

[27]Per usual, Fine's work anticipates this concern, in explicitly allowing for partial Grounding. I cannot enter into the more subtle details of Fine's investigations here; suffice to say that a relation of partial Grounding is not up to the task of making sense of the usual ('in virtue of'; 'nothing over and above') idioms of metaphysical dependence that proponents of Grounding take as implicitly defining their posit. It is especially unclear how a relation of partial Grounding is supposed to comport with Schaffer's and Rosen's supposition that Grounding is primitive. Is the basic primitive Partial Grounding, and if so, how does this comport with Complete Grounding? Note that one cannot define Complete Grounding in terms of Partial Grounding, along lines of defining parthood in terms of primitive proper parthood and identity. Rather, to handle the case of robust emergentism, primitivists about Grounding will require, it seems, at least two primitively related primitive relations.

[28]Supervenience, by way of contrast, *is* capable of tracking (at least existential) dependence on its own, so in this respect it does better than Grounding for purposes of characterizing metaphysical structure.

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open; rather, it is that such claims leave open questions that *must be answered* to gain even basic illumination about or allow even basic assessment of claims of metaphysical dependence, or associated theses such as naturalism.

We can start on this train of thought by observing that Rosen's Grounding-based formulation of naturalism tells us almost nothing about how, exactly, normative and intentional goings-on stand to naturalistic goings-on. It does not tell us, for example, whether the former are reducible to the latter (as per reductive varieties of naturalism), or whether the former are rather irreducible to, though still nothing over and above, the latter (as per non-reductive varieties of naturalism). Moreover, as Rosen implies in saying that 'These (more or less) distinctively human aspects of reality *may be* genuine; but according to the naturalist, they are not fundamental' —it does not even tell us whether intentional or normative facts exist.[29] Fine similarly takes Grounding to be neutral between a realist and an anti-realist stance concerning the Grounded:

> [I]n saying that the fact that P & Q is grounded in, or consists in, the fact that P and the fact that Q ... we are adopting a metaphysically neutral stand on whether there really are conjunctive facts (or truths). Thus our view is that there is a sense in which even a realist about conjunctive facts may be willing to concede that the fact that P & Q consists in the fact that P and the fact that Q; there is a position here that may be adopted by realist and antirealist alike.[30]

And later: 'application [of the notion of Ground] carries no realist or antirealist import'.[31] Bearing in mind the interpretive options concerning Fine's use of 'realism' and 'antirealism' (see note 18), Fine's claim might be that Grounding is compatible with either the existence or the non-existence of the Grounded, or it might be that Grounding is compatible with either the fundamentality or the non-fundamentality of the Grounded.[32] Either

[29]Rosen, 'Metaphysical Dependence', 111 (emphasis added). It seems that we must here interpret 'genuine' in terms of existence: unlike Fine's use of 'real', Rosen's use of 'genuine' cannot mean 'fundamental', since then the quoted passage will not make sense. As such, Rosen's characterization of naturalism as compatible with the normative's being both Grounded in the natural ('for the naturalist, every normative fact and every intentional fact is grounded in ... non-normative, non-intentional facts', 111) and not existing does not track any existing naturalist position. Alternatively, perhaps the idea is that eliminativism about the normative or intentional is compatible with vacuous satisfaction of the naturalist thesis ('Every fact tops a naturalistic tree', 112); but in that case, a Grounding formulation of naturalism does not realize the advertised virtue of allowing an 'exact' formulation of naturalism ('if we take the 'in virtue of' idiom for granted, we can [express the naturalist's position about the normative and the intentional] exactly', 111).

[30]Fine, 'Question of Realism, 15.

[31]Ibid., 21.

[32]Either interpretation of Fine's claim may seem at odds with his intended use of Grounding, as enabling us to 'determine the viability of a realist or anti-realist stand' on the goings-on at issue; we shall see how he resolves this in Section II.iii.

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way, basic questions about metaphysical dependence and structure are left open.[33]

Given that Grounding is supposed to illuminate metaphysical dependence—in particular, to illuminate *how* things are—such neutrality is perplexing. After all, naturalists do not care only about whether, for example, normative goings-on metaphysically depend on naturalistic goings-on: they also care about whether normative goings-on exist; about whether, if they exist, they are reducible or rather irreducible to (though still nothing over and above) naturalistic goings-on; about how exactly normative goings-on are related to naturalistic goings-on; about whether normative goings-on are efficacious and, if so, whether they are distinctively efficacious (that is, efficacious *qua* normative); and so on. Hence it is that naturalists almost never rest with the schematically expressed locutions of metaphysical dependence, but rather go on to stake out different positions concerning how, exactly, the normative or other goings-on metaphysically depend on the naturalistic ones.[34]

So, to cite just a few contenders (here I apply categories familiar from the physicalism debates): a naturalist might be a type identity theorist, maintaining that every type of normative state is identical with some ontologically lightweight (i.e. lower-level relational, Boolean or mereological) combination of naturalistic state types.[35] Or a naturalist might be a token identity theorist, maintaining that it suffices for naturalistic nothing over and above-ness that normative state tokens are identical with naturalistic state tokens, even if type-identities are not available.[36] Or a naturalist might be a 'role functionalist',

[33]One might wonder (as Karen Bennett and Jon Litland did; pers. comm.) how the holding of a Grounding relation can leave open the existence of the Grounded: does not the holding of a relation require that all the relata exist? It would seem so, whether worldly entities, facts, or Russellian propositions are at issue; but such factivity is hard to square with the explicit pronouncements of ontological neutrality. Since Fine's propositions are not explicitly Russellian (notwithstanding that he sometimes refers to them as 'facts') he is in a somewhat better position to maintain that the truth (or counterfactual truth) of a Grounded proposition leaves open the existence (counterfactual existence) of the worldly entities whose dependence is at issue in the proposition (which he presumably wants to do in order to make sense of standard anti-realist accounts). Alternatively (as Litland has suggested) one might preserve the stated neutrality by conceiving of Grounding in operator-based rather than relational terms. I cannot read between all the relevant lines here, but am just going to proceed by taking at face value the several explicit remarks about the ontological neutrality and relational nature of Grounding.

[34]I say 'almost never', since conditions of epistemic uncertainty or studied metaphysical neutrality might motivate sticking with a general grounding claim; here the exceptions prove the rule.

[35]See, for example: Place, 'Is Consciousness a Brain Process'; Smart, 'Sensations and Brain Processes'. For 'realizer functionalist' variations on the theme of type-identity, see: Lewis, 'Argument for the Identity Theory', 'Reduction of Mind'; Armstrong, *Materialist Theory*; Kim, 'Myth of Non-Reductive Materialism'.

[36]See, for example: Davidson, 'Mental Events'; Macdonald and Macdonald, 'How to Be'; Ehring, 'Part–Whole Physicalism'. In saying that normative states might be grounded in naturalistic states by way of type or token identity, I am assuming, contra some proponents of

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maintaining that normative state types are characterized by functional or causal roles played by naturalistic state types.[37] Or a naturalist might maintain that normative state types and/or tokens stand in something like the determinable/determinate relation to naturalistic goings-on.[38] Or a naturalist might maintain that normative state types and/or tokens are appropriately seen as proper parts of naturalistic state types and/or tokens.[39] As core to the theme of some of the aforementioned options, a naturalist might maintain that the powers of normative features are a proper subset of the powers of their naturalistic realizers.[40] Finally, a naturalist might be a pragmatic eliminativist, maintaining that normative goings-on do not really exist, but that it is convenient for various purposes to speak as if they do.[41]

Each of these views conforms to Rosen's 'in virtue of' formulation of naturalism, but each, in appealing to different specific metaphysical relations, advances a different conception of *how* the normative and intentional goings-on metaphysically depend on the naturalistic goings-on. And each of these metaphysically informed views is genuinely illuminating: unlike Rosen's formulation, each is in position to provide answers to basic questions about the ontological, metaphysical and causal status of the metaphysically dependent goings-on at issue.[42] A similar observation holds for other contexts and debates in which metaphysical dependence is a target of

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Grounding, that identity may be a grounding relation. In Section V, I argue that proponents of Grounding are wrong to deny this, and I address the question (familiar from the physicalism debates) of how to make sense of the intended direction of priority in cases in which nothing over and above-ness is understood in terms of identity. For now I make the following observation: insofar as proponents of Grounding typically link this posit to the standard ('metaphysically depends on', 'in virtue of', 'nothing over and above', and so on) idioms of dependence, as they enter into naturalist and physicalist theses in particular, and insofar as standard versions of these theses explicitly interpret the idioms in terms of identity, the default position would appear to be that grounding, and moreover Grounding, *should* be compatible with identity, whatever proponents of Grounding have maintained.

[37]See, for example: Putnam, 'Minds and Machines'; Shoemaker, 'Functionalism and Qualia'.

[38]See, for example: Yablo, 'Mental Causation'; Macdonald and Macdonald, 'How to Be'; Wilson, 'Determination, Realization', 'How Superduper'.

[39]See, for example: Clapp, 'Disjunctive Properties'; Shoemaker, 'Realization and Mental Causation'; Paul, 'Logical Parts'.

[40]See Wilson, 'How Superduper', 'Non-Reductive Realization'; Shoemaker, 'Realization and Mental Causation', *Physical Realization*.

[41]See, for example: Paul Churchland, 'Eliminative Materialism'; Patricia Churchland, *Neurophilosophy*.

[42]To be sure, proponents of a given specific relation will not always agree as regards all of its implications for the dependent relata. For example, the Macdonalds suppose that token instances of the determinable/determinate relation are identical, whereas Yablo and I take determinable/determinate tokens to be distinct. But in general there is large agreement on what consequences the holding of a given relation has in contexts in which metaphysical dependence is at issue, and, in any case, insofar as the relation is familiar, there is sufficient traction that debate about its consequences can proceed. Macdonald and Macdonald, 'How to Be'; Yablo, 'Mental Causation'; Wilson, 'How Superduper', 'Determination, Realization'.

investigation.[43] The underdetermination associated with Grounding thus constitutes a preliminary reason to reject the claim that Grounding is the target of the idioms of metaphysical dependence—much less 'the primitive structuring conception of metaphysics'.

The underdetermination associated with Grounding also suggests a *tu quoque* objection to this claim. As above, a primary motivation for positing Grounding is that merely modal/correlational relations are too coarse-grained to do the job of illuminating metaphysical dependence, since the holding of such modal relations is compatible with views that, as Rosen puts it, 'differ on an important issue, viz., whether the moral facts play a role in making the law to be as it is'.[44] But the underdetermination illustrated by the case of 'in virtue of' naturalism (as well as the inability of Grounding alone to properly characterize the complex structure of robust emergence) shows that Grounding alone also fails to discriminate views that differ on important issues clearly relevant to dependence. If such a failure is reason to reject giving a modal interpretation to the idioms of metaphysical dependence, then it should be reason to reject giving a Grounding interpretation to these idioms.[45] Conversely, having rejected merely modal conceptions of dependence, why (as Benj Hellie correctly asked) should metaphysicians resist being as articulate as their metaphysical means allow in characterizing what depends on what?

II.ii. The extreme 'coarse-graining' response to Grounding underdetermination

One answer to the latter question—not especially plausible, but nonetheless useful, for purposes of seeing what is at issue here—would be to maintain

[43]For example, consider another view that Rosen cites as motivating the intelligibility of Grounding: 'The dispositions of a thing are always grounded in its categorical features (Prior, Pargetter, and Jackson 1982). A glass is fragile in virtue of the arrangement of the molecules that make it up, perhaps together with the laws of chemistry and physics.' Rosen, 'Metaphysical Dependence', 110. Here again, proponents of such a view do not stop with a bare Grounding claim, but rather go on to propose specific accounts of the grounding relation at issue. As Fara observes: 'The different views about the relation between dispositions and their causal bases that have been defended in the literature mirror views about the relation between mental properties and physical properties. David Armstrong defends a "type-identity theory" according to which any disposition is identical with its causal basis. Stephen Mumford defends a "token-identity theory" according to which any instance of a disposition is identical with an instance of one of its potential causal bases. Elizabeth Prior (together with Robert Pargetter and Frank Jackson) defends a "functionalist theory" according to which a disposition is a second-order property of having some causal basis or other. … There are other views too….' Fara, 'Dispositions'. The fairly obvious point (beside the confirming observation that contemporary metaphysics is up to its neck in concern with metaphysical dependence) is that investigations into metaphysical dependence are conducted with an eye to identifying or assessing what specific 'small-g' grounding relation(s) might reasonably be taken to hold in a given case.

[44]Rosen, 'Metaphysical Dependence', 114.

[45]And again (see note 26): if supervenience is supplemented (e.g. by claims of conceptual entailment), then it too can make finer-grained discriminations.

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that, whatever previous investigators may have been up to, in any case the proper level of grain for purposes of illuminating metaphysical dependence pertains merely to the distinction between being Grounded (i.e. being metaphysically dependent) and not.

But—and here we arrive at the deeper concern about the underdetermination associated with Grounding—this answer will not do. For investigations into metaphysical dependence, conducted without any reference to specific metaphysical details, *cannot be carried out*. Consider the perversely uninterested metaphysician who aims only to determine which entities are metaphysically dependent, and which are not. Such a metaphysician will find themselves hopelessly stymied, for given the associated underdetermination, we cannot assess a given claim about what is or is not metaphysically dependent, either relative to a domain or in general, until we know which specific grounding relations are at issue, and what consequences the holding of these relations has for whether the goings-on at issue exist, are reduced, are efficacious, are distinctively efficacious, and so on.

For example, does it make sense to be a physicalist—to take the mental goings-on, in particular, to metaphysically depend on the physical goings-on? Well, it depends. Everyone has their commitments. In my book, it is most important to preserve the (existential) *reality, ontological distinctness* and *distinctive causal efficacy* of the mental, and I will give up one of these commitments only if no option reasonably accommodating all three is available. More specifically, I would rather be either a non-reductive physicalist or a robust emergentist than a reductive physicalist, since the former views accommodate all my commitments, while the latter view fails (or so I and many others think) to preserve the distinctness and the distinctive efficacy of the mental. Now, suppose someone claims that the mental is Grounded in the physical. Am I in position to know whether I should agree with them? Not at all. As with naturalism, the bare assertion of Grounding is compatible with both reductive and non-reductive versions of physicalism—indeed, perhaps even with anti-realist eliminativism about the mental (see notes 29 and 33). Absent further information about the specific grounding relation(s) supposed to be at issue, I am stuck: I am not in position to assess, much less endorse, the claim that the mental is Grounded in—is metaphysically dependent on, nothing over and above—the physical.

One might wonder, as an anonymous referee did, whether this is always true. Can we not assess, as plainly true, claims to the effect that disjunctions metaphysically depend on disjuncts, and that conjunctions metaphysically depend on conjuncts? Perhaps so;[46] but this is not a counterexample to the

[46]I say 'perhaps', since in my view the direction of dependence even in these cases is not a slam dunk. Perhaps the fact that Schrödinger's cat is either alive or dead is metaphysically prior to whatever fact ensues when the box is opened. Perhaps the fact that there will or will not be a sea battle tomorrow is metaphysically prior—since true, now, even though (as it might be) neither of

general claim, since in these cases we have already gone beyond a mere claim of Grounding, in that the relata are specified in terms of the specific metaphysical relation at issue (disjunction, conjunction).

A similar problem pertains to the proper interpretation and assessment of failures of Grounding. Suppose someone tells me that the mental is *not* Grounded in the physical. Should I agree with them? Again, without further information, I cannot say. A failure of Grounding is, after all, compatible with either an anti-realist eliminativist stance concerning the mental,[47] or with a realist emergentist stance, according to which mental goings-on are over and above the physical (indeed, perhaps are fundamental). Before one can settle on a metaphysical interpretation, one must look to the specific reasons for the supposed failure of Grounding: if the failure of Grounding is due to the mental's having powers not had by the physical, then an emergentist rather than an eliminativist stance is in order; if the failure rather reflects some sort of epistemic incapacity or merely pragmatic leanings on our part, then an eliminativist stance is to be preferred. Here too, I am not in position to assess, much less endorse, the claim that the mental is not Grounded in the physical.

The upshot is that Grounding (failure of Grounding) alone is practically useless for purposes of investigations into metaphysical dependence.

II.iii. The 'general presumption' gambit

There is one last gambit available to the proponent of Grounding who wants to maintain that Grounding, as opposed to any of the specific metaphysical relations, is the proper target of the idioms of dependence. Here the suggestion is that applications of Grounding also involve appeal to certain general presumptions concerning the ontological status of Grounded entities. This seems to be one way in which proponents of Grounding have tried to accommodate the clear need for further illumination of the nature of metaphysical dependence beyond what bare Grounding claims are able to provide. Fine, for example, comes down against reality:

the disjuncts is true—to whatever disjunct fact comes down the line. More needs to be said (or presupposed) about the metaphysics of disjunction, so to speak, even in this simple case. Similarly for the direction of dependence of conjunctions and conjuncts, if 'conjunctive holism' is true. If the relations at issue are understood as univocal, then making sense of the direction of dependence will require additional information. Cases in which fixing the direction of dependence requires further information give rise to what I call the 'crucial appeal' motivation for Grounding; presenting this motivation and arguing that the requisite additional information does not involve an appeal to Grounding is the topic of Section IV.

[47]The astute reader will have observed that both Grounding claims and failure of Grounding claims are, if the claims of certain proponents are taken at face value, compatible with anti-realist eliminativism.

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> I would like to suggest that there is a general presumption in favor of the grounded not being real. . . . The presumption may be justified by reference to the general aims of realist metaphysics. For the distinction between what is and is not real represents a general strategy for making sense of the factual world. For, of all the structure that the world exhibits, some may be taken to be real, to belong to the world itself, and some to be only apparent and to be understood by reference to what is real.[48]

Again, given the interpretive options, Fine's claim here is either that there is a presumption against the existence of the Grounded, or (more likely) that there is a presumption against the fundamentality of the Grounded. Schaffer comes down for reality, endorsing ontological 'permissiveness' as regards Grounded entities:[49]

> [W]hile the Quinean will show great concern with questions such as whether numbers exist, the neo-Aristotelian will answer such questions with a dismissive *yes, of course*. [As regards such existence questions] there is no longer anything directly at stake. For there is no longer any harm in positing an abundant roster of existents, *provided it is grounded on a sparse basis*. (This is why the neo-Aristotelian can be so permissive about what exists. She need only be stingy when it comes to what is fundamental.)[50]

Schaffer motivates his permissivism by arguing that 'contemporary existence debates [e.g., about numbers] are trivial, in that the entities in question obviously do exist'.[51]

The general presumption strategy fails, however. The point can be put in terms of a dilemma. To start, note that the general presumptions above take us at best partway towards resolving the underdetermination associated with bare Grounding claims. Supposing Grounded goings-on are not (really) real: are they reducible to Grounding goings-on, or rather eliminable? If Grounded goings-on are (really) real, are they reducible to or rather distinct from (but still nothing over and above) the Grounding goings-on? Are

[48]Fine, 'Question of Realism, 27.

[49]It is likely here that Schaffer and Fine do not have the same notion of reality in mind, even if the presumption at issue in Fine's claim involves existence, since Schaffer's claim probably pertains to 'ordinary' existence, whereas Fine's pertains to 'metaphysical' existence. My own view is that we should not bifurcate notions of existence this way, but in any case nothing hangs on this exegetical issue for purposes of evaluating the general presumption response. See Wilson, 'Much Ado about "Something"'.

[50]Schaffer, 'On What Grounds What', 353 (emphasis in original).

[51]Ibid., 357. See also Audi, who contrasts his general presumption with both Fine's and Schaffer's: 'On my view, grounded facts and ungrounded facts are equally real, and grounded facts are an "addition of being" over and above the facts in which they are grounded.' Audi, 'Clarification and Defense', 101–2.

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Grounded scientific goings-on efficacious or not? Are they distinctively efficacious or not? Are un-Grounded goings-on to be eliminated or taken as fundamental? To answer the roster of basic questions relevant to assessing a given claim of metaphysical dependence or its lack, additional general presumptions will be required. Like the general presumptions above, these will presumably appeal to controversial assumptions—as, for example, the deflationary aims of 'realist' metaphysics, or the triviality of existence claims—in order to 'come down' one way or another on the answers to these questions, such that (let's say) Grounded goings-on will be (not really) real, reducible, and (non-distinctively) efficacious. It is bad enough that, on this approach, what is advertised as the foundational general resource for investigating metaphysical dependence turns out to require, for its basic application, commitment to numerous highly controversial assumptions. Worse is that the resulting notion of Grounding will be *too* specific plausibly to be (as proponents of Grounding claim it is) the target in contexts in which metaphysical dependence is at issue. As we have seen, metaphysicians working in such contexts consider highly diverse forms of metaphysical dependence, associated with the specific 'small-g' grounding relations. Moreover, the main point of investigations into diverse specific relations is that different relations frequently give rise to *different* answers to the basic questions. So, as with the general endorsement of either dismissiveness or permissiveness about Grounded goings-on, a strategy of coupling bare Grounding claims with controversial general presumptions overcomes underdetermination (we are here granting) only by rendering Grounding unable to properly accommodate the diversity of uses of the idioms of dependence, which uses are supposed to implicitly define it.

Another problem with the general presumption strategy is that it is the general presumptions, as opposed to the posit of Grounding, that are doing the work of illuminating basic facts about dependence. The concern here is not that one should not appeal to multiple assumptions in answering questions about dependence; it is that Grounding, which is offered as illuminating metaphysical dependence, is not able to provide such illumination on its own, and moreover (to mix metaphors) is not doing the heavy lifting. Compare: one can combine supervenience claims with further assumptions (e.g. of conceptual entailment) in order to allow more fine-grained characterizations of metaphysical dependence, but in that case it is conceptual entailment, not supervenience, that is doing the heavy lifting.[52]

II.iv. The necessity of appeal to the specific relations

Grounding alone, even when supplemented by controversial general presumptions, is practically useless for purposes of investigations into

[52]See Wilson, 'Supervenience-Based Formulations'.

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metaphysical dependence. That Grounding is so useless undermines another motivation for such a posit, according to which this relation is admirably explanatory. Fine says: 'We take *ground* to be an explanatory relation: if the truth that *P* is grounded in other truths, then they *account* for its truth; *P*'s being the case holds *in virtue of* the other truths' being the case.'[53] Indeed, Fine takes Grounding to be 'the ultimate form of explanation'. But, as above, from the bare fact that some goings-on are Grounded in some others, it hardly follows that the latter metaphysically explain the former in any interesting sense; nor does a bare Grounding claim itself constitute an explanation in either a metaphysical or epistemic sense. Gaining even basic explanatory illumination about metaphysical dependence requires appeal to the specific relations (type and token identity, functional realization, the classical mereological parthood relation, the causal composition relation, the set membership relation, the proper subset relation, the determinable–determinate relation, and so on) that are the typical focus of investigations into such dependence.

But insofar as appeal to specific 'small-g' grounding relations is required to gain even basic illumination about metaphysical dependence, what if any point is there moreover to positing Grounding?

Answering this question is the task of the next three sections of this paper. Before moving on, though, it is important to see that the problem being raised here for Grounding does not hang on any general worries about general metaphysical notions: it is simply that Grounding is *too* general to be of any use. Suppose someone were inclined to posit a general (perhaps even primitive) relation of Causation, as at issue in contexts in which various idioms of causal dependence were operative. (I am not suggesting that we should posit such a general relation; the example is for illustrative purposes.) Such a general posit would not, it seems, be subject to the complaint I am now leveling against Grounding, for a bare claim of Causation tells one quite a lot about the ontological, metaphysical and causal status of the related goings-on. If someone tells me that the baseball Caused the breaking of the window, for example, then, even if I do not know which specific sort of causal relation (e.g. nomological, counterfactual, transference-based) is supposed to be at issue, I am nonetheless in position to know quite a lot about what the claim metaphysically entails or presupposes about the related goings-on. I know, for example, that (on the supposition etc.) the baseball and the window-shattering each exist; that the baseball and the window-shattering are distinct; that the baseball is efficacious. And while, given further information about the specific form of causation at issue, I could know even more about what the Causal claim entails or presupposes, the information made available just by the claim is already enough for its assessment, and that of associated views, to proceed: hence it is, for example,

[53]Fine, 'Question of Realism', 15 (emphasis in original).

that Merricks's overdetermination argument against the reality of inanimate macro-objects (which, were they to exist, would bring Causal relations in their wake) can proceed without attending to which 'small-c' causal relations are specifically operative.[54] Not so, I have argued, for investigations into metaphysical dependence.[55]

III. Is Grounding Needed to Track a Coarse-Grained, but Useful, Level of Metaphysical Grain?

Investigations into dependence must advert to the specific metaphysical relations (type and token identity, functional realization, the classical mereological parthood relation, the causal composition relation, the set membership relation, the proper subset relation, the determinable/determinate relation, and so on) typically at issue in investigations into metaphysical dependence. In that case, however, why posit Grounding *in addition to* the specific relations?

The first suggestion is that there is reason to posit Grounding, as marking *a*—if not *the*—proper level of grain for illuminating dependence.[56]

What useful work might this be? Nolan suggests that bare Grounding claims can serve to flag useful dialectical strategies.[57] He looks to supervenience by way of supportive analogy: while the claim that the mental metaphysically supervenes on the physical is admittedly too coarse-grained to characterize the dependence at issue, the supervenience claim at least serves to group physicalists on one side against hardcore substance dualists, and as such to suggest useful lines of argumentation on either side. Similarly, Nolan suggests, for claims of Grounding (or failure of Grounding). Relatedly, Koslicki (pers. comm.) suggests that those endorsing (or rejecting) Grounding claims in a given case will be inclined to accept similar consequences—for example, that Grounded entities cannot modally come apart from Grounding entities.

But such considerations do not motivate taking Grounding to mark a metaphysical, as opposed to merely pragmatic, grain of investigation. Here the analogy to supervenience is instructive, though not in the way Nolan hopes. As the case of consistent Malbranchean occasionalism shows,

[54]Merricks, *Objects and Persons*.

[55]Thanks to an anonymous referee for encouraging me to explore the contrast between Grounding and Causation.

[56]The suggestion here is related to, but different from, that to be considered in Section V, of considering whether Grounding is motivated as a potential unifer of the 'small-g' grounding relations. Here it is not unification per se that is at issue, but rather the idea that an appeal to Grounding may be useful in specific investigations into metaphysical dependence. The strategies are related, however, in that the usefulness of Grounding for purposes of specific investigations will presumably hinge on the specific relations' having certain features in common—which common features in turn are often cited as motivation for positing some unifying element.

[57]Nolan, 'Metaphysics outside Grounding'.

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metaphysical supervenience of mental on physical goings-on is compatible with substance dualism; moreover, lack of such supervenience is compatible with physicalism.[58] So supervenience, in fact, fails to mark any clear doctrinal or dialectical division. To be sure, claims of metaphysical supervenience are *typically* or *usually* endorsed by physicalists rather than robust dualists, but that is a contingent statistical, perhaps even sociological fact. Such a fact might be useful for purposes of fallible first-pass sorting. But there is no case here for thinking that supervenience claims are tracking a coarse-grained, but still properly metaphysical, aspect of physicalist reality.

Similarly, it seems, for claims of Grounding or failure of Grounding. To start, the considerations showing that supervenience tracks a pragmatic rather than metaphysical joint carry over to the case of Grounding, to show that Koslicki's suggestion is again not obligatory: (non-reductive) physicalists can allow, for example, that metaphysically dependent mental states can come modally apart from physical goings-on. Moreover, as above, these claims are compatible with wildly different accounts of metaphysical dependence (or its lack). What sorts of dialectical strategies or consequences are supposed to be common to accounts of metaphysical dependence based in type identity, token but not type identity, functional realization, the classical mereological parthood relation, the causal compositional relation, the set membership relation, the proper subset relation, and the determinable/determinate relation (not to mention eliminativist views, if seeming neutrality about the existence of the Grounded is taken seriously), each compatible with a Grounding claim? What sorts of dialectical strategies or consequences are supposed to be common to eliminativist, expressivist, robust emergentist and substance dualist views, each compatible with a failure of Grounding claim? The concerns here are compounded by the fact that the relation(s) of Grounding (and failure of Grounding) are intended to apply not just to broadly scientific goings-on, but to logical, mathematical and metaphysical goings-on. Given this diversity, not even the very general dialectical aim of showing that some goings-on are metaphysically explained (or not) can be supposed to track any distinctive metaphysical joint. Moreover, and notwithstanding the common association of Grounding with metaphysical explanation, claims that some goings-on are nothing over and above some others are compatible with there being an explanatory gap between the dependent and base

[58]This would be the case, for example, if a given physicalist endorsed a view of properties as involving quiddities only contingently associated with powers, along with the sort of 'subset of powers' view of realization proposed in Wilson, 'How Superduper'; and Shoemaker, 'Realization and Mental Causation'. For defense of the compatibility of contingentism about laws and powers with (non-reductive) physicalism, see Wilson, 'Non-Reductive Realization'. Probabilistic considerations might also undermine the supervenience claim without undermining the physicalist claim.

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goings-on,[59] so even this typically shared aim in fact marks, at best, a fallible pragmatic device as opposed to a distinctive metaphysical joint.

Sider (pers. comm.) offers two different sorts of 'coarse-grained' motivation for positing Grounding, each of which are associated with a purported role Grounding may play in guiding investigation into comprehensive doctrines such as physicalism and naturalism. First, he suggests, when generally formulated, such doctrines are neutral on *how* things are grounded, and just say *that* things are grounded in a certain way. The various forms of physicalism are, as he says, '*all forms of physicalism*'; it is important to recognize them as such, and the posit of Grounding provides a basis for doing so. Relatedly, Sider takes use of expressions such as 'is a grounding relation' to provide terminological support for there being a general notion of Grounding, not reducible to any specific grounding relation. Second, he suggests, Grounding becomes important when we look at the epistemic role of doctrines like physicalism:

> Such sweeping doctrines are important epistemically, even if they're in a sense superficial metaphysically. . . . Lots of people work very hard to try to show that consciousness is somehow a physical (material, natural) phenomenon. They begin by exploring one sort of way to Ground consciousness in the physical, but if that doesn't work, they try another way. Why do they stick to this path? It's because they take themselves to have very good evidence that everything is Grounded—in one way or another—in the physical. They look at many cases in the history of science, in which various phenomena which eventually seemed quite distinct from the physical were all shown to be Grounded in the physical, and conclude that these cases provide evidence for a sweeping doctrine of physicalism, to the effect that *all* phenomena are Grounded in the physical. . . . This line of thought essentially uses the general notion of Ground, and cannot be reconstructed using any particular grounding relation, since different grounding relations are at issue in different cases in the history of science. (pers. comm.)

Neither of Sider's suggestions supports the metaphysical posit of Grounding as tracking a coarse-grained joint in nature, however. From the fact that we

[59]For discussion of this point, see Wilson, 'Causal Powers, Forces'. The basic idea here is that there may be indirect reasons to endorse a claim of nothing over and above-ness. So, for example, if the strong emergence of mentality involves violations of conservation laws adverting only to fundamental physical interactions (with such violations serving to indicate the presence of a new, 'mental' fundamental interaction), then empirical confirmation of an absence of such violations might in itself serve as a basis for taking the mental to be nothing over and above the physical, notwithstanding the insuperable presence of an explanatory gap. This is not to suggest that in such cases we need to appeal to a distinctive Grounding relation; rather, the 'small-g' grounding relation at issue is one holding between the energies of the dependent and base goings-on.

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may formulate or recognize certain general theses as expressing that, for example, all broadly scientific goings-on are 'Grounded in' or stand in 'a grounding relation' to—or are 'nothing over and above', 'hold in virtue of', etc.—some other goings-on, it does not follow that such formulations or recognitional abilities are tracking a distinctive aspect of metaphysical reality. For there is a natural and more parsimonious view according to which references to 'Grounding', 'a grounding relation', or 'nothing over and above-ness' are schematically and neutrally ranging over specific 'small-g' grounding relations. A similar point attaches to the fact that in our investigations we may be epistemically guided by a general 'nothing over and above' assumption. Such a schematic approach makes sense of these epistemic practices, compatible with there being 'different grounding relations ... at issue in different cases in the history of science'.

Two final points are worth making as regards the general strategy of positing Grounding as tracking a coarse-grained level of metaphysical grain. First (as I also discuss in Section V), from the fact that some goings-on have something in common it does not follow that we should posit some metaphysically distinctive goings-on corresponding to the common element. Compare the usual take on determinables and determinates: we speak of, and recognize, various specific shades as all being colors, and may (perhaps fruitlessly) seek for just the right shade of color to satisfy a certain purpose; but on the typical understanding, determinables are supposed to be, if existent, in any case reducible to complex combinations of determinates. I do not like this view of determinables myself,[60] but the point is that it requires a lot more work—the sort that metaphysicians expend a lot of energy on, in detailed investigation into what specific dependence relations may be operative in a given case—to argue that a commonality is associated with an irreducible metaphysical posit.

Second, even supposing that there were a metaphysical posit in the vicinity here, how etiolated it would turn out to be! Rather than Grounding being the Holy Grail of investigations into metaphysical dependence, it would be little more than a metaphysical hook to hang certain pragmatic, terminological or methodological leanings, prior to rolling up one's sleeves and getting down to the real work of illuminating dependence enabled by the more specific 'small-g' grounding relations.[61]

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[60]See Wilson, 'Fundamental Determinables'.

[61]Bader has recently offered up an alternative way for a coarse-grained notion of Grounding to be useful—not as directly appealed to in investigations into dependence, but rather as indirectly appealed to in an account of what it is to be or have an intrinsic property. Considerations of space prevent me from entering into the details of Bader's discussion here; however, two remarks. First, in order to avoid circularity, Bader's account appeals to a notion of fundamentality effectively as the 'unGrounded'; but as I argue in Section IV, it is inappropriate to characterize fundamentality in non-basic, theoretically loaded terms. Second, even granting that a coarse-grained notion of Grounding were useful as input into this or that metaphysical

IV. Is Grounding Needed for the Specific Relations to Fix the Direction of Priority?

I now turn to what strikes me as the most promising motivation for Grounding. Here again the proponent of Grounding accepts that investigations into metaphysical dependence must advert to specific metaphysical relations. They maintain, however, that there is still reason to posit Grounding, for as Fine (pers. comm.) put it, 'the mere holding of these other relationships may not in general be sufficient to establish a relationship of ground'. So, for example, given that every X is a proper part of some Y, nothing follows about whether it is the parts or the wholes that are metaphysically dependent.[62] The same is even more clearly true for other of the specific relations—in particular, type or token identity—that are frequently appealed to in investigations of metaphysical dependence. Moreover, as Fine suggested, 'there is a real question, it seems to me, whether talk of more specific relations will be adequate to convey what we want to convey unless it is also coupled with a claim of ground' (pers. comm.). On the 'crucial appeal' response, then, the proponent of Grounding maintains, first, that further (worldly) facts or assumptions must be in place in order for specific relations to serve as grounding relations, and, second, that these further facts/assumptions crucially involve an appeal to Grounding.[63]

The 'crucial appeal' motivation for Grounding is the most promising (especially as developed by Benj Hellie, below), in my view; but as I now argue, it does not succeed.

My basic strategy is to grant that, in some cases (e.g. the classical mereological part/whole relation), additional facts/assumptions are needed for a specific metaphysical relation to serve as a grounding relation, but to deny that these crucially involve an appeal to Grounding. Suppose, then, to fix ideas, that we are presented with some goings-on that stand to each other as (classical mereological) part to whole. What more is needed to fix the direction of priority—assuming this is appropriate, as per various live

account of some phenomena, the question would remain what sort of interpretation the references to 'Grounding' or the 'in virtue of' notion or relation in the account should receive. As I read Bader's account, for example, the reference to 'in virtue of' is naturally read as schematic over specific 'small-g' grounding relations. Bader, 'Towards a Hyperintensional Theory'.

[62]See Schaffer, 'Monism'. See also Trogdon, who observes that conjuncts asymmetrically supervene on conjunctions, but that relative fundamentality goes in the other direction. Trogdon, 'Monism and Intrinsicality'.

[63]Mark Steen insightfully observed that there is a tension between non-primitivism about Grounding and the claim that the specific relations are not up to the task of fixing the direction of priority: if Grounding is something like an abstraction from the specific relations (a position that Fine, e.g., seems to endorse), then it is unclear how the associated Grounding relation could fix this direction (given that the specific relations cannot do so). This seems right, in which case the 'crucial appeal' motivation for Grounding should (and notwithstanding Fine's seeming to endorse this motivation) be seen as offered in support of a primitive relation of Grounding.

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metaphysical theses—in one way rather than another? There are two different sorts of cases to treat here—one in which one side of the relation, so to speak, involves or (or as I sometimes say) 'applies to' fundamental goings-on, and one in which both sides of the relation apply to non-fundamental goings-on. In this section I address each in turn, considering in between the objection that my preferred conception of fundamentality is really a version of a Grounding view.

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IV.i. Is Grounding needed to fix the direction of priority between fundamental and non-fundamental goings-on?

For an important class of cases, the facts or assumptions that are additionally required concern a specification of which goings-on are fundamental (or which serve as fundamental[64]). *Given* that the Ys are fundamental, and given that every X is a proper part of some Y, *then* it follows that the Xs are grounded in the Ys, rather than vice versa. *Given* that the Xs are fundamental, and given that every Y is a fusion of the Xs, *then* it follows that the Ys are grounded in the Xs, rather than vice versa. That this is the correct story about which facts or assumptions are additionally required in an important class of cases is encoded in the standard methodology in existing debates over metaphysical dependence, associated with various fairly comprehensive theses. So, for example, debates over the status of naturalism or physicalism *start* by identifying the naturalistic or physicalistic goings-on as (assumed, as a working, speculative, or antagonistic hypothesis to be) fundamental; participants then proceed to consider whether other goings-on not clearly part of the fundamental base might stand in various specific relations to (ontologically lightweight combinations of[65]) goings-on in the base, sufficient unto the former's holding 'in virtue of' or being 'nothing over and above' the latter.

There remains a concern, however, that if the direction of priority associated with a specific metaphysical relation relies on facts or assumptions about what is fundamental, then Grounding is after all required for the relation to serve as a grounding relation. This concern, suggested to me by

[64]A non-fundamental base may be treated as fundamental if the archeology, so to speak, of the non-fundamental base is irrelevant to investigations into the dependence relations at issue. So, for example, the entities treated by fundamental physics might serve as a fundamental base for higher-level broadly scientific phenomena, even if the physical entities are non-fundamental relative to some deeper level of reality.

[65]In contexts in which general theses like physicalism are at issue, the base entities are typically understood as being closed under certain combinatorial operations. So, for example, if the physical entities are the relatively non-complex particulars and relations treated by fundamental physics (just one option, of course), then among the lower-level 'physically acceptable' entities that are taken to be part of the base (to which, e.g., the reductive physicalist may appeal in their theorizing) are 'ontologically lightweight' combinations of physical entities, including lower-level relational aggregates of physical entities, Boolean (disjunctive, conjunctive) or mereological combinations of such entities or relational aggregates, etc.

Hellie, proceeds by reference to a metaphysical account or characterization of the fundamental as *not grounded* in any other distinct goings-on.[66] Supposing that this is the right way to characterize the fundamental, then (again, for this important class of cases), since the specific metaphysical relations at least sometimes operate as grounding relations only given a specification of the fundamental, appeal to Grounding would be crucially required.

The suggestion, in other words, is that the posit of Grounding is needed metaphysically to characterize the fundamental as the un-Grounded.[67]

The suggestion can be resisted, however, for two reasons. First, the characterization of the fundamental as the un-Grounded is metaphysically suspect. The concern here is not based in the supposition that negative goings-on do not exist or are somehow problematic—though, to be sure, one might reject a negative account of the fundamental on these grounds. The concern is rather that, even granting that negative goings-on exist and are generally unproblematic, in any case the fundamental should not be metaphysically characterized in negative terms—or indeed, in *any* other terms. The fundamental is, well, *fundamental*: entities in a fundamental base play a role analogous to axioms in a theory—they are basic, they are 'all God had to do, or create'. As such—again, like axioms in a theory—the fundamental should not be metaphysically defined in *any* other terms, whether these be positive or negative.[68]

Second, the suggestion under consideration presupposes that the fundamental goings-on are not themselves grounded. But why think this? Why could the fundamental goings-on not mutually ground each other, as on a holist pluralist view of the sort associated with, for example, Leibniz? And why could the fundamental goings-on not ground themselves, as some have supposed God capable of doing, or as a metaphysical correlate of foundational self-justified beliefs? These alternative understandings of the fundamental—as self- or mutually grounding—seem to be live possibilities, so it is inadvisable to rule them out of court in metaphysically characterizing the fundamental, even if one is not personally inclined to accept such

[66]This is a fairly common way to characterize the fundamental. Hence Schaffer says, 'The key notion of a fundamental entity … can be defined as … "x is fundamental =df nothing grounds x".' Schaffer, 'On What Grounds What', 87. And Bennett says: 'I do not think there is any question that independence is a—the—central aspect of our notion of fundamentality.' Bennett, *Making Things Up*.

[67]Note that the account or characterization of the fundamental at issue has to be construed in metaphysical terms if it is to motivate the posit of Grounding. An appeal to 'the un-Grounded' as heuristically or pragmatically characterizing a primitive positive fundamental base (of the sort I will shortly endorse) would not suffice to motivate Grounding.

[68]Hence it would be similarly inapropos to try to motivate Grounding by appeal to the sort of positive Grounding-based account of the fundamental offered by Raven, according to which (to simplify somewhat), P is fundamental if all of its Grounds are ultimately Grounded in P, such that, in the case in which P is unGrounded, the universal generalization is vacuously true. See note 69 for another concern with Raven's suggestion. Raven, 'In Defence of Ground'.

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possibilities. After all, we are here not engaged in an ordinary philosophical investigation into some specific phenomenon, but rather in identifying general categories suited to illuminate and investigate metaphysical dependence. In so doing, we should be maximally (i.e. insofar as we can) ecumenical; in particular, we should reject accounts of these general categories that import clearly controversial assumptions about which forms of metaphysical dependence are possible.[69]

We thus have two reasons to resist a characterization of the fundamental as the un-Grounded: first, such a characterization inappropriately characterizes basic entities in negative and, more importantly, in non-basic terms; second, such a characterization is inappropriately theoretically loaded.[70]

In place of a negative non-basic, theoretically loaded characterization, we should rather characterize the fundamental in positive basic, metaphysically neutral terms. Here I am inclined to follow Fine and 'reject the idea that the absolute notion of fundamental reality is in need of a relational underpinning', rather taking 'reality and its intrinsic structure' to be primitive: 'it is this positive idea of the intrinsic structure of reality, rather than the comparative idea of reduction, that should be taken to inform the relevant conception of what is fundamental or real'.[71] Though I endorse Fine's view that the fundamental is primitive, I think we can say more about this notion; namely, that it follows from some goings-on's being fundamental at a world that these goings-on, individually or together, provide a ground—*nota bene*: in one or other specific 'small-g' fashion, *not* by reference to a distinctive relation of Grounding—for all the other goings-on at the world. Which entities are in the fundamental base is primitive; this primitive specification then *fixes the direction of priority* (assuming there is one, as there may not be in cases of self- or mutual grounding, or cases of entities having nothing to do with one another) associated with a given specific 'small-g' grounding relation, when applied to goings-on in the base; effectively, fundamentality is hyperintensional. For example, if the One is primitively fundamental, then proper parts of the One will be non-fundamental; if the Many are primitively fundamental, then fusions of the Many will be non-fundamental.

[69]Raven's positive Grounding-based account of fundamentality accommodates self-grounding entities, but accomodates symmetric mutually grounding entities, only (so far as I can tell) by accepting infinite chains of transitive Grounding. To my mind, there is a clear concern about whether it makes sense to posit infinite chains of entities, each grounded in the next; and where those entities take turns grounding each other (as in case of symmetric mutually grounding entities) the concern seems to me even more pressing. In any case, that is not what Leibniz had in mind.

[70]Jenkins also rejects a conception of the fundamental as that which 'depends on nothing', on grounds that, for example, 'one could think that physical wholes metaphysically depend on their proper parts, and that physical objects are 'gunky' ... and yet also sensibly describe the physical world as metaphysically 'fundamental''. Jenkins, 'Explanation and Fundamentality'.

[71]Fine, 'Question of Realism', 25.

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Let me say this again. On the positive basic, theoretically neutral approach, which entities are fundamental is ultimately a primitive (hyperintensional) matter. That seems right (or at least acceptable): again, entities in a fundamental base play a role analogous to axioms in a theory. On my preferred interpretation of the approach, the direction of priority operative in applications of the specific metaphysical relations to entities in the fundamental base is fixed by this primitive specification. That also seems right (or at least acceptable): applications of the specific metaphysical relations (e.g. proper part, fusion) to entities in the fundamental base will thus be appropriately (in particular: non-circularly) sensitive to which relata are prior.[72] Here it is perhaps worth noting that, notwithstanding that I have provided reasons to reject alternative, Grounding-based conceptions of the fundamental, it is enough for my purposes that I motivate a viable, non-Grounding-based alternative—as I just have.

That applications of the specific relations in these cases are informed by what is fundamental also conforms to the methodology that metaphysicians typically employ in investigations into fundamentality and metaphysical dependence. Again: such investigation proceeds by assuming, as a working, speculative or antagonistic hypothesis, some candidate fundamental base; investigation then proceeds by considering whether some goings-on not obviously in the base can be appropriately seen as grounded, in one or other metaphysically specific fashion, in goings-on inside the base. Supposing so, one checks off the seemingly grounded goings-on and moves to the next goings-on not obviously in the base. Supposing not, one has various options —most saliently, to take the seemingly ungroundable goings-on to be either fundamental or eliminable. Hence it was, for example, that, prior to the advent of quantum mechanical explanations of chemical phenomena, the seeming irreducibility of the latter to lower-level physical goings-on was offered as evidence of their emergence—a status that was revoked upon the advent of quantum mechanics, indicating that the chemical was, after all, grounded in the physical. And hence it is that the status of various aspects of the mental as grounded, or not, in the physical continues to be a focus of metaphysical investigation, with those convinced that such grounding is not in the offing differing as regards whether this indicates that the mental should be eliminated or should rather taken to be over and above the physical goings-on.

IV.ii. Is a primitive positive posit of Fundamentality really just a version of Grounding?

I pause to consider the concern, raised by Schaffer (pers. comm.), that in endorsing a primitive positive (hyperintensional) posit of fundamentality, I

[72]Thanks to Sigrún Svavarsdóttir (and also Lisa Downing and David Sanson) for convincing me that a primitive notion of fundamentality was needed here in order to avoid circularity.

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am actually proposing an interesting new version of a Grounding view—one that combines primitivism about absolute fundamentality with pluralism about relative grounding relations.

I respond that my view is not a version of a Grounding view. I do take fundamentality to be a primitive hyperintensional notion, but that is very different from taking metaphysical dependence to be a primitive hyperintensional notion—not least because the latter, unlike the former, is ultimately relational.[73] If the fundamental had to be understood as the un-Grounded, then perhaps there would be a kind of entailment here; but I explicitly reject this (non-basic, relational) understanding of fundamentality, and nor am I forced to accept such an understanding.

To see furthermore that my view is not a version of a Grounding view, it is worth recalling that those who assume that metaphysical dependence can be analyzed in terms of supervenience typically suppose that supervenience does its work against certain background assumptions about what is fundamental (as per, for example, supervenience-based formulations of physicalism, according to which everything metaphysically supervenes on the physical goings-on). There is nothing to prevent such a person from taking fundamentality to be a primitive hyperintensional notion while continuing to suppose that metaphysical dependence should be understood in terms of supervenience, and doing so would not turn their view into a Grounding view. Indeed, the standard problems for a supervenience-based conception of dependence, which are cited as motivating the alternative of Grounding, would remain: it would still be, for example, that supervening with metaphysical necessity would not rule out robustly emergent supervenient goings-on.

Similarly, there is nothing to prevent me from taking fundamentality to be a primitive hyperintensional notion while supposing that metaphysical dependence is a non-primitive matter of the holding of one or other 'small-g' grounding relations (which do not, of course, include mere supervenience), and doing so does not turn my view into a Grounding view. For it remains that my conception of metaphysical dependence rejects what proponents of Grounding take to be distinctive about their notion—namely that metaphysical dependence is a distinctive, perhaps even primitive, hyperintensional notion. On my view, metaphysical dependence is not distinctive, primitive or hyperintensional. My view is not a Grounding view.

IV.iii. Is Grounding needed to fix the direction of priority among non-fundamental goings-on?

The previous discussion indicates that Grounding is not needed for the specific relations to fix the direction of priority when these relations are

[73]Representing Grounding claims as involving an operator rather than a relation would not change the basic fact that, whatever else metaphysical dependence is, it is relational.

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applied to fundamental goings-on. But, one might wonder, perhaps Grounding is still needed to fix the direction of priority in cases in which metaphysical dependence between non-fundamental goings-on is at issue.[74] Suppose that the Many are fundamental, as on an atomist view. Then both my body and my hand are non-fundamental; but does my body metaphysically depend on my hand, or vice versa (as Alex Jackson wondered)? Atomists might differ on this question. Similarly, on an atomist view, both bodies and their temporal parts will be non-fundamental. But do bodies metaphysically depend on their temporal parts, as on an endurantist view, or do temporal parts metaphysically depend on bodies, as on a perdurantist view (as Fine wondered)? Again, atomists might differ on this question. Is Grounding then needed to fix the direction of priority between goings-on all of which are non-fundamental?

The answer is 'no', and here again the usual metaphysical methodology suggests the way forward. For investigating into which dependence relations may or may not hold between non-fundamental goings-on requires that one have in hand fairly specific accounts of the non-fundamental goings-on in terms sensitive, somehow or other, to which goings-on are considered fundamental (else why characterize the former goings-on as non-fundamental?). As per the previous section, making sense of these accounts does not require an appeal to Grounding. But once these accounts are in hand, the direction of priority between different non-fundamental goings-on, if there is one, will plausibly follow from their respective accounts, or at least narrow down the options modulo further assumptions that will vary from case to case, and which clearly do not require appeal to Grounding. Moreover, in many cases the options will include that there is no direction of priority associated with the holding of a given relation, in which case the fact that certain relations do not in themselves fix a direction of priority turns out to be a feature, not a bug. The general moral to be drawn by the following examination of specific cases will be that, once again, Grounding is not only unnecessary but really obviously insufficient for investigations into metaphysical dependence, which—especially in the case of complex non-fundamental goings-on—require very precise attention to metaphysical details.

Consider, for example, the sort of accounts that might be offered, on an atomist view, of my body and my hand. Suppose that both my hand and my body are classical mereological fusions of the Many. What should we say about whether my hand depends on my body, or vice versa? One thing we might say is that, as fusions of the Many, both my body and my hand depend on the Many but neither metaphysically depends on the other per se. They overlap, but so what? Why take some fusions to be prior to others? But another thing we might rather say is that, qua fusion, my body depends on

[74]Several people expressed this worry to me, including Kit Fine, Alex Jackson and Jonathan Schaffer.

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my finger, on (somewhat implausible) grounds that smaller fusions are prior to larger fusions that contain the smaller fusions, or (somewhat more plausibly) on grounds that the finger fusion could exist without the body fusion existing, but not vice versa. These are live options, but in any case, note that neither requires the posit of Grounding.

There are, of course, other accounts of bodies and hands available on an atomist picture. For example, an atomist might take my body and my hand to be functionally defined entities, where the functional specification associated with my body does not require that I have this (or any) hand as a part (classical mereological or otherwise), but the specification associated with my hand does require that my hand be part of this (or at least some) body. In that case, it would be plausible to maintain that my hand metaphysically depends on my body, but not vice versa—again, without appeal to Grounding.

The discussion of the above mereological and non-mereological options in the case of hand and body also sheds light on Fine's question of how, given that endurantists and perdurantists may both accept that bodies have temporal parts, we are to make sense of the different directions of priority associated with these positions. The answer is: we cannot—but that is just because, to start, to discern the directions of priority we need to work with the specific accounts of the goings-on at issue. Indeed, once we do this, it becomes clear that the sense of 'part' in which an endurantist accepts that a body has a temporal part will be different from the (classical mereological) sense of 'part' in which a perdurantist accepts this, so it is not really the case that they associate different directions of priority with the same relation. For the perdurantist, bodies are classical mereological fusions of temporal parts, which are themselves fusions; and to the extent that there is a direction of priority between body and temporal part fusions (which there may not be, much as there may not be a direction of priority between my body fusion and my hand fusion), it will reflect, for example, the supposition that spatiotemporally smaller fusions are more fundamental than larger ones. For the endurantist, bodies are not fusions; rather, they are entities that may be wholly present whenever they exist—for example, functionally specified entities or substantial universals; hence the relation between enduring bodies and their temporal parts is not to be understood in classical mereological terms. How, precisely, the endurantist will aim to accommodate the supposed priority of bodies over their temporal parts will depend on exactly what account is given of these entities; here the case of functionally specified hand and body provides one available strategy.

Interestingly, investigations into metaphysical dependence between non-fundamental goings-on are complicated by the fact that the dependence of a given non-fundamental entity on another is typically wrapped up in not one, but a number of relations connecting the involved entities or their features. For example, even supposing that there is a clear sense in which my hand qua functionally specified entity depends on my body qua functionally

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specified entity, but not vice versa, there is an equally clear sense in which the *weight* of my body, at least at the present moment of writing, is in part metaphysically dependent on the weight of my hand, in that the weight of my body is clearly an additive function of the weight of its parts; and certainly the things that my body, even if abstractly functionally specified, can do—its powers, so to speak, depend to some extent on the powers of my hand.[75]

Is all this complexity supposed to involve numerous Grounding relations, primitively pointing in different directions?[76] The idea is just plain silly, and suggests that, even if there were some problem (which there is not) with the specific relations not being themselves up to the task of fixing directions of priority among non-fundamental goings-on, the posit of additional Grounding relations would not be any help. We can do no better, in such investigations, than to work closely with the diverse relations that are plausibly taken to hold between non-fundamental goings-on, making explicit what assumptions are guiding our claims that one or another of these is, in a given case, operating as a grounding relation (or not).

Summing up: a Grounding relation is too coarse-grained on its own to do even basic work in characterizing metaphysical dependence. The specific metaphysical relations that have traditionally served as grounding relations are needed to do the work, in particular, of specifying whether some goings-on are or are not metaphysically dependent on some others, and of specifying whether grounded goings-on do or do not exist, are or are not reducible, are or are not distinctively efficacious, etc. To be sure, the specific metaphysical relations (at least sometimes) serve as grounding relations only relative to certain other facts or assumptions. But that this is so does not motivate the posit of Grounding in addition to the specific metaphysical relations, for whether the relations are taken to apply to fundamental or non-fundamental goings-on, the assumptions at issue do not involve any appeal to Grounding. So far as investigations into metaphysical dependence are concerned, then, there is no work for Grounding to do.[77]

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[75]For a metaphysically specific attempt to deal with such complexities in the case of material constitution, as involving a material core and relations to possibilia, see Paul, 'Coincidence as Overlap'.

[76]'Primitively', for reasons due to Steen (see note 63).

[77]It is worth emphasizing that (contra the interpretation of my view in Trogdon, 'Introduction to Grounding') in arguing that cases in which Grounding is supposedly operative are in fact cases in which specific grounding relations are operative, I am not advancing the sort of thesis advanced by Hofweber or Daly. Hofweber is concerned to argue that any supposed grasp of metaphysical priority in general is really grasp of some non-metaphysical relation; Daly similarly suggests that the skeptic about Grounding can 'maintain that commonly understood non-philosophical idioms can be understood without invoking the concept of [G]rounding but instead by involving restricted modality and other concepts that he understands'. My view is, rather, that any supposed grasp of metaphysical priority in general is really a grasp of some specific (not-merely-modal) metaphysical relation, coupled (if need be) with some specification

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V. Is Grounding Needed as a General Unifier of the Specific Grounding Relations?

Though Grounding is not needed for specific investigations into metaphysical dependence, one might wonder whether we should nonetheless posit Grounding in addition to the specific metaphysical grounding relations, as unifying, one way or another, the specific relations. Schaffer offers just such a motivation:

> I digress to consider a possible objection, according to which there are many distinct notions of grounding, united only in name. . . . By way of reply, I see no more reason to consider this a case of mere homonymy, than to consider various cases of identity as merely homonymous. In both cases, there is a common term, and the same formal structure. This is some evidence of real unity. At the very least, I would think it incumbent on the objector to provide further reason for thinking that the general term 'grounding' denotes no unified notion.[78]

Schaffer here suggests that the unification at issue is both terminological and formal. As above (Section III) Sider similarly claims that reference to 'grounding' (as in 'grounding relations'), of the sort that I have helped myself to in this paper, supports countenancing the general notion. And Fine's (pers. comm.) suggestion that Grounding might be effectively multiply realized (or implemented) by 'small-g' grounding relations might be taken to suggest that Grounding is, one way or another, a metaphysical unifier of the more specific relations.

These routes to unification are problematic, however. One basic problem with these suggestions is that, even granting that the specific relations are unified in any or all of these ways, nothing directly follows about whether or not a distinctive relation should be posited as the metaphysical locus of the

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of the relevant fundamental goings-on. My view is somewhat closer to, though still crucially different from, that advanced by Koslicki: Koslicki is friendly to the supposition that there is a 'general characterization of ontological dependence along [Finean] essentialist lines', but thinks that there are (at least) two basic forms of such dependence ('constituent dependence', in which the dependent goings-on have more fundamental entities as essential constituents, and 'feature dependence', in which the dependent goings-on 'corresponds to a feature that is present in a "bearer" or "host"'). These general specifications of the general relation still leave open all the crucially basic questions, however—do the constituents form a plurality or an aggregate? Is the constituted entity identical to or distinct from the plurality or the aggregate? Is the constituted entity efficacious? and so on—and so fail to overcome the sort of metaphysical underdetermination that renders Grounding practically useless for purposes of investigations into metaphysical dependence. (See Koslicki, 'Coarse-Grainedness of Grounding', for further discussion of differences between our views.) Similar remarks apply to McDaniel's proposed reduction of Grounding in terms of degrees of being (or associated notion of comparative 'reality'). Hofweber, 'Ambitious, yet Modest'; Daly, 'Scepticism about Grounding', 99; Koslicki, 'Varieties of Ontological Dependence', 212; McDaniel, 'Degrees of Being'.

[78]Schaffer, 'On What Grounds What', 377.

commonalities at issue. I made a version of this point earlier, when considering Sider's suggestion that use of expressions such as 'a grounding relation' support the posit of Grounding; there the observation was that such seeming reference admits of a plausible alternative interpretation as schematic over the specific relations. The same point would apply to Schaffer's claim that the idioms of dependence exhibit terminological unity, supposing they in fact do. A related point applies to other unity-based motivations for Grounding. For example, suppose that the diverse specific relations have something metaphysically and/or formally in common. Why suppose that such commonalities support a distinctive, much less primitive, metaphysical posit—Grounding? Here again it is useful to recall that (and notwithstanding that determinables clearly terminologically, metaphysically and formally unify their determinates) philosophers very commonly assume that determinables are reducible to disjunctions of determinates. Again, I do not think that is the right view of determinables,[79] but the point remains: no support for the posit of a distinctive, much less primitive Grounding relation follows just from the supposition that the 'small-g' grounding relations share various features in common.[80]

V.i. The disunity of the specific grounding relations

In any case, there is little motivation for taking the specific grounding relations to be unified in any of the suggested ways. There is not, after all, 'a common term' operative in contexts in which questions of dependence and priority are at issue, but rather several idioms of dependence ('metaphysically depends on', 'in virtue of', 'nothing over and above', 'grounded in', 'constituted by', 'just', etc.). Indeed, the fact that there are so many different idioms provides support, to my mind, for taking these idioms (as well as derivative references, such as 'a grounding relation' or a relation of 'nothing over and above-ness') to be schematic over the specific relations: any handle recognizably adverting to the specific relations will do, so to speak.

The case for metaphysical unity is also weak. What exactly is supposed to be in common among type identity, token but not type identity, the classical mereological part/whole relation, alternative (e.g. causal compositional) understandings of the part/whole relation, functional realization, the set

[79]Following Wilson, 'Fundamental Determinables'.

[80]Moreover, if Grounding were posited as metaphysically unifying all the specific relations, the relation between Grounding and the specific relations would itself involve a grounding relation, whose status and direction of priority is unclear. Such a posit thus gives rise to concerns expressed by the question: What grounds the Grounding facts? An advantage of sticking with specific grounding relations rather than reifying a distinctive Grounding relation is that this bothersome question does not arise for the specific relations. For attempts to answer the bothersome question, see Bennett, 'By Our Bootstraps'; Raven, 'In Defence of Ground'; deRosset, 'Grounding Explanations'; Litland, 'Grounding Grounding'.

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membership relation, the proper subset relation, the determinable/determination relation, and other relations that have been profitably appealed to in specific investigations into metaphysical dependence of the nothing over and above variety? To be sure, these relations are all capable of serving as 'small-g' grounding relations, but note that, as per Section IV, their serving in this capacity will typically depend on certain other facts or assumptions (e.g. about which goings-on are fundamental). As such, the sense in which these various relations have in common their status as grounding relations is unclear and does not clearly support their having some metaphysical element in common (compare the case of determinables and determinates, where there does seem to be a clear sense in which the determinates have something metaphysical in common).

Nor do the formal features associated with the specific relations, even in cases in which they serve as grounding relations, serve as evidence of real unity. Proponents of Grounding typically cite irreflexivity, asymmetry and transitivity (or transitive closure) as features shared by all grounding relations:

> As to the logical features of grounding, it is best modeled as a two-place predicate.... Grounding is ... irreflexive, asymmetric, and transitive.[81]

> It seems clear that the binary part of the grounding relation is asymmetric and hence irreflexive. ... The grounding relation is not obviously transitive, but I shall assume transitivity.... If the most fundamental relation in the vicinity is not transitive, then [Grounding] picks out its transitive closure.[82]

To be sure, some grounding relations, including proper parthood, proper subsethood, and the determinable/determinate relation, have these features. But note that these features are shared by any strict ordering relation, many of which are non-grounding relations—causation, temporal relations such as 'before-than', quantitative scalar relations such as 'taller-than', and so on. Hence, even if all grounding relations did have these features, this in itself would not serve as evidence of real unity of the sort that would motivate posit of Grounding; at best it would serve as evidence for the posit of a relation ('Strict Ordering'?) unifying any and all strict ordering relations.[83]

Moreover, not all grounding relations have all the supposed features. It is often supposed that impure sets metaphysically depend on their members,

[81]Schaffer, 'On What Grounds What', 376.
[82]Rosen, 'Metaphysical Dependence', 115. See also Correia, 'Ontological Dependence', 1023.
[83]It is perhaps in recognition of this fact that Schaffer takes the evidence of real unity to advert to the conjunction of terminological and formal considerations; but as above there is little evidence of terminological unity.

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and not vice versa;[84] but set membership is not transitive. And Schaffer has come to believe, by attention to 'mixed' cases of iterated grounding, that 'the assumption of transitivity was a mistake'.[85] Having given up transitivity, the argument from formal unity is on even shakier ground, since now many more non-grounding relations will share the supposedly unifying formal features at issue. Indeed, since the asymmetry of a relation entails its irreflexivity, the claim that grounding relations are formally unified comes down to the claim that grounding relations are all asymmetric. Even supposing this is correct, the case for unity here is again not for Grounding per se, but for some other relation ('Asymmetry'?), subsuming any and all asymmetric relations.

And things get worse; for not all grounding relations are asymmetric. Naomi Thompson and Elizabeth Barnes have given a number of candidate examples of mutually metaphysically dependent goings-on, concluding that metaphysical dependence is non-symmetric.[86] Proponents of Grounding might aim to deny any and all of these cases, but given that the cases seem to be live possibilities (independent of one's previous commitments), such rejections are increasingly ad hoc; and, again, insofar Grounding is supposed to represent a general resource for investigating metaphysical dependence, the characterization of this posit should not rule out of court apparently live possibilities about what can metaphysically depend on what.

What remains is at best the claim that all grounding relations are irreflexive. But *most* relations are irreflexive! The claim of formal unity has fallen apart under further examination.

V.ii. Identity as a grounding relation

I could stop here, but I want to press on a bit, since I think even the supposition of irreflexivity as common to all grounding relations can and should be denied; this result moreover provides additional support to the

[84]See Fine, 'Essence and Modality'.

[85]Schaffer, 'Grounding, Transitivity, and Contrastivity'. So, for example, Schaffer discusses a case in which a specific dent in a ball's surface partially grounds the ball's specific shape S, and the ball's specific shape S partially grounds the ball's being more or less spherical, but the dent does not ground the ball's being more or less spherical. Though Schaffer does not flag this, his case is 'mixed' in arguably involving distinct specific grounding relations: the dent is partly mereologically constitutive of the specific shape, and the specific shape is a determinate of which the less specific shape is a determinable.

[86]Thompson, 'Metaphysical Interdependence'; Barnes, 'Symmetric Dependence'. So, for example, Thompson discusses a case in which the truth of each of a pair of propositions is grounded in the truth of the other (P: 'Q is true' Q: 'P is true'); Barnes discusses several cases of seemingly mutual metaphysical dependence, including numbers on a mathematical structuralist view and cases in which an event (e.g. World War II) metaphysically depends on a smaller event (e.g. the evacuation at Dunkirk), and vice versa.

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claim that grounding relations may be symmetric. For, I maintain, identity (type or token) is also a grounding relation, and identity is reflexive.

I consider the motivations for presupposing irreflexivity shortly, but we already have reason to think that any such assumptions must be mistaken. For, in investigating grounding, we aim to make sense of the usual idioms of metaphysical dependence, and identity claims are paradigmatic of claims taken to establish that certain goings-on are nothing over and above certain other goings-on. Sometimes the assumption of identity is explicit:

> Every mental state type is identical with a physical state type or a disjunction of physical state types.
>
> Water is identical with H2O.

Sometimes it is tacit but clearly presupposed:

> To say that there is a table in the room is just to say that there are some particles arranged table-wise in a room.
>
> The fact that it is possible that there is a blue kangaroo is reducible to the fact that there is a concrete possible world containing a blue kangaroo.

Why, then, think that a grounding relation must be irreflexive? Rosen says: 'The case for strong irreflexivity is clear enough. Just as no fact can make itself obtain, no fact can play a role along with other facts in making itself obtain.'[87] (On Rosen's view, Grounding may hold between many grounding facts and a single grounded fact; talk of 'strong' irreflexivity reflects that a grounded fact cannot be one among the several grounding facts.) Rosen also makes a case for 'strong asymmetry' (entailing strong irreflexivity):

> [W]hen we cite grounds for [p], we cite facts that are strictly prior to [p] in a certain explanatory order. If [q] plays a role in making it the case that p, then [q] must be 'more fundamental' than [p], in which case [p] cannot play a role in making it the case that q.[88]

This motivation for irreflexivity, as well as that for asymmetry, can and should be resisted, however.

To start, even bracketing whether identity is a grounding relation, the case for reflexivity is weak. Again, why not allow that fundamental goings-on can ground themselves, along lines of the self-justificatory status of basic beliefs on a foundationalist epistemology, or the self-sustaining status of God on

[87]Rosen, 'Metaphysical Dependence', 116.
[88]Ibid., 116.

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many theologies? Given such possibilities, it seems better to suppose that grounding is non-reflexive, with some cases of grounding being reflexive and others not.[89] Relatedly, Jenkins notes, after observing that the assumption of irreflexivity, combined with certain plausible dependence claims (e.g. that statues depend metaphysically on their composing matter) entails the falsity of certain seemingly live positions (e.g. that every statue is identical with its composing matter), that 'there are considerations of methodological neutrality which speak against assuming irreflexivity'.[90]

But if grounding can be reflexive, then it can also be symmetric. Again, why not allow that there can be cases of symmetric irreflexive grounding—say, as holding between mutually interdependent foundational entities, along lines of Leibniz's monadology, or as might be the case if, as I argue elsewhere,[91] determinables as well as determinates can be fundamental? Given such live possibilities, it also seems better to suppose that grounding relations may be non-symmetric, with some cases of grounding being symmetric and others not.

Still, putting aside the possibility of foundational or mutual self-grounding, something seems right about Rosen's lines of thought motivating asymmetry and irreflexivity, according to which grounding is supposed to reflect a directed order of metaphysical dependence. Indeed, in typical cases of identity-based claims, the dependence is supposed to be asymmetric; for example, mental state types are grounded in physical state types, rather than vice versa. How can the typical asymmetry of dependence be accommodated, if the specific grounding relation at issue—say, type or token identity—is symmetric?

There are two ways, one or other of which might apply in a given case. First, the asymmetry of dependence can be located, not in the specific grounding relation itself, but in extrinsic considerations involving the relata. So, for example, a type-identity theorist about the mental can locate this asymmetry in the broadly extrinsic fact that every mental state type is identical with a physical state type, but not vice versa. Second, the asymmetry of dependence can be located, not in the specific grounding relation itself, but in intrinsic considerations involving the relata. So, for example, a type-identity theorist can locate this asymmetry in the broadly intrinsic fact that the physical state type to which the mental state type is identical is an ontologically lightweight (e.g. lower-level relational, Boolean or

[89]Fine distinguishes strong and weak notions of grounding that are irreflexive and reflexive, respectively; but his admission of reflexive grounding is not intended to accommodate identity claims as grounding claims, since (as the terminology of 'weak' grounding implies), reflexive grounding is supposed only to connect facts at the same 'level' of metaphysical priority. As I argue presently, a grounding relation may be reflexive even in cases where there is a clear asymmetry of priority. Fine, 'Guide to Ground'.

[90]Jenkins, 'Is Metaphysical Dependence Irreflexive', 270.

[91]Wilson, 'Fundamental Determinables'.

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mereological) combination of other physical state types rather than other mental state types. This sort of strategy will also work to secure the asymmetry of priority in cases of a posteriori necessity, involving, for example, water's being identical with H_2O (here, a higher-level type is taken to be identical with a lower-level relational type). Even granting that the dependence at issue in (many cases of) grounding is directed and so in some sense asymmetric and irreflexive, then, there is no problem with taking identity-based grounding claims at metaphysical face value.[92]

One final concern remains about taking identity to be a grounding relation. Supposing it is, then one of the relata will (by one or other means, above) be prior to (more fundamental than) the other. But then how can the relata be identical? Since they have different properties, by Leibniz's law they must in fact be different.[93] The concern here is familiar to identity theorists in the physicalism debates; my preferred response adverts to considerations similar to those discussed in the previous paragraph. According to the ontological reductionist, a state token or type may be shared by different systems. In such cases, the qualification of the state as fundamental or not reflects the status of the state as part of a *system* of states that is or is not appropriately taken to be fundamental, either on intrinsic or extrinsic grounds, as a working, speculative or antagonistic hypothesis. Qua physical—part of a physical system of states—a belief is fundamental, according to the reductive physicalist; qua mental—part of a mental system of states—that same belief is not fundamental. This sort of strategy (which is a variation on strategies discussed by Lewis and by Gibbard) seems to me to make sense of how identical entities can have different properties.[94]

It is moreover worth noting the lengths that proponents of Grounding must go in order to treat seemingly clear cases of grounding relations not having the assumed features of irreflexivity and asymmetry. So, for example, in regards to the case of logical analysis, Fine says:

> The notion of ground … is also to be distinguished from logical analysis. Indeed, the paradigm of logical analysis ('the average American') is not for us a case of ground, since the propositions

[92]These strategies for accommodating the directedness of metaphysical priority will also serve to accommodate the related idea that (as per Fine, 'Question of Realism', 'Guide to Ground') grounding is or is associated with an explanatory relation, and explanatory relations must be irreflexive in order to be informative.

[93]Thanks to Karen Bennett for raising this concern.

[94]Lewis, 'Counterparts or Persons'; Gibbard, 'Contingent Identity'. Jenkins suggests that one way of making out this sort of view is to take talk of relative dependence as hyperintensional: 'To say that "depends on" is hyperintensional is to say that it creates contexts into which one cannot always substitute necessarily co-extensive terms salva veritate. … This option is, importantly, compatible with ontologies that identify brain states with pain states. We are free to identify S's pain with the brain state that grounds it, should we wish (for reasons of parsimony, say), to do so.' Jenkins, 'Is Metaphysical Dependence Irreflexive', 270–1.

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> expressed on both sides of the analysis are presumably the same and yet no proposition can properly be taken to ground itself. For us, the potentially misleading surface appearance of grammar is entirely irrelevant to questions of ground, since we are looking to the propositions expressed by the sentences rather than to the sentences themselves.[95]

But cases of logical analysis are paradigmatic cases of grounding or metaphysical dependence, and it is implausible to deny that they are such. Rosen agrees that a 'Grounding-Reduction Link' is highly plausible, not just in cases of logical analysis but also in cases of metaphysical analysis and a posteriori necessity; but again the commitment to Grounding's being irreflexive poses a difficulty:

> To be a square just is to be an equilateral rectangle. This means that if ABCD is a square, then it is a square in virtue of being an equilateral rectangle. To be an acid just is to be a proton donor. So HCl is an acid in virtue of the fact that HCl is a proton donor. Suppose Lewis is right; suppose that for a proposition to be necessary just is for it to hold in all possible worlds. Then it is a necessary truth that whatever is green is green, and if we ask what *makes* this proposition necessary, the answer will be: It is necessary in virtue of the fact that it is true in every world. These instances of the Grounding-Reduction Link have a certain ring of plausibility ... but the Link presents us with a real puzzle. After all, if our definition of square is correct, then surely the fact that *ABCD* is a square and the fact that *ABCD* is an equilateral rectangle are not different facts: they are one and the same. But then ... every instance of [the Link] will amount to a violation of irreflexivity.[96]

Rosen's basic strategy for avoiding this difficulty is to take reduction to be a relation between distinct propositions. But not just any propositions will do the trick; in particular, Russellian propositions, individuated just by their worldly constituents and their manner of combination, will not do, since on such an account reduced and reducing propositions fail to be distinct, leading, via the Grounding-Reduction link, to another violation of irreflexivity. Rosen's second pass strategy then involves 'insisting that the operation of replacing a worldly item in a fact with its real definition never yields the same fact again. It yields a new fact that "unpacks" or "analyzes" the original'.[97]

[95]Fine, 'Question of Realism', 15. Fine reports that he is inclined at present towards taking the relata of Grounding to advert to more specifically representational entities (sentences, rather than the propositions that sentences express), which move strikes me as either at odds with his desired 'return to metaphysical innocence' or else to be subject to concerns similar to those of Rosen's view, to be next discussed.
[96]Rosen, 'Metaphysical Dependence', 124.
[97]Ibid., 124.

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Rosen spends some time motivating this new means of individuating facts and associated propositions, which effectively imports modes of presentation characteristic of representational entities into the world. Suffice to say that there is a much more straightforward strategy for preserving the Grounding-Reduction Link: namely to allow that grounding can be reflexive (again, locating the asymmetry of priority elsewhere than the grounding relation) and, more generally, allowing that identity (type or token) can be a grounding relation.

To return to the question of formal unity: one might respond to the seeming diversity of formal properties of specific grounding relations by multiplying distinctive grounding relations, *à la* Fine. So, for example, Fine distinguishes between 'weak' and 'strong' notions of Ground which are and are not reflexive, respectively.[98] Such diversification, in manifesting sensitivity to the variety of ways in which some goings-on may be grounded in some others, is clearly on the right track. But a strategy of diversification leads back towards a disunified array of more specific relations, undermining the remaining reason to posit any Grounding relation(s) distinct from the usual metaphysical suspects, and moreover—since we must clearly remain committed to the specific relations—violating the usual strictures of parsimony and Ockham's razor.

V.iii. Contrasting Grounding and Causation as potential unifiers

Summing up: there is neither terminological, metaphysical, nor formal reason to posit a Grounding relation, as needed to unify the multiplicity of specific grounding relations: the objection 'according to which there are many distinct notions of grounding, united only in name' stands.

Note that the complaint I am here raising would again not clearly apply to undermine a general relation of 'Causation', should anyone care to posit one. The diverse (nomological, counterfactual, transference) accounts of causation are terminologically unified: there is a single word ('cause') that flags that causation is at issue. The diverse relations are also formally unified: whatever the account, causation is (with the few claimed exceptions proving the rule) uniformly understood to be asymmetric, irreflexive and transitive.[99] Moreover, as discussed above, 'small-c' causal claims bring with them a number of common presuppositions—about the existence of the cause and effect, the distinctness of cause and effect, and the efficacy of the cause. There is at least a case to be made, then, that the 'small-c' causal relations are terminologically, formally and metaphysically unified. Not so, as I have argued, for the 'small-g' grounding relations.

[98]Fine, 'Guide to Ground'.

[99]The usual formal features posited for Grounding thus subsume the causal relation.

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VI. Concluding Remarks

Proponents of Grounding are correct that metaphysicians should be concerned with the question of what metaphysically depends on what; and they are correct that the idioms of metaphysical dependence are not properly interpreted in semantic, epistemic, causal or merely modal terms—necessitation and supervenience, in particular, are simply too coarse-grained to characterize appropriately metaphysical dependence. But this much leaves open whether these idioms are to receive, in whole or in part, a metaphysical interpretation in terms of a distinctive relation or relations of Grounding, or whether such idioms should rather be taken *just* to advert, schematically or otherwise, to one or other of the specific metaphysical relations—type and token identity, the functional realization relation, the classical mereological part-whole relation, the causal composition relation, the set membership relation, the proper subset relation, the determinable–determinate relation, etc.—already on the scene.

I have argued against the former interpretation, on grounds, first, that the basic ontological, metaphysical and causal underdetermination associated with claims of Grounding (failure of Grounding) renders such claims unassessable on their own; and therefore, second, that we cannot avoid appealing to the specific 'small-g' grounding relations in investigations into metaphysical dependence; but third, that once the specific relations are on the scene, there is no good reason to moreover to posit Grounding.[100] To be sure, my arguments have primarily targeted the accounts set out in Fine, Schaffer and Rosen; but so far as I can tell these arguments do not hinge on any specific details of these accounts. Nor do these arguments hinge on any general concerns about general notions. The problem with Grounding is not that it is general; it is that it is *way too* general. This extreme generality renders it useless on its own, falsifying the claims that Grounding is 'the primitive structuring conception of metaphysics' or 'the ultimate form of explanation', and ultimately also undermining the weaker claim that Grounding is at least tracking a coarse-grained metaphysical joint.

There is no general short-cut to the proper illumination of metaphysical structure. I conclude that ontologists interested in metaphysical dependence should abandon the halfway house of Grounding, as no better and in certain respects worse than the inadequate notions it was invoked to replace, and rather join forces with the metaphysicians of dependence already on the scene in exploring the diversity of specific ways in which some goings-on may be grounded in some others.

[100]To say that there is no work for Grounding to do is not to say that proponents of Grounding have not been doing useful work. In particular, nothing prevents philosophers from understanding Fine's diverse 'logics of ground' as illuminating the logic of specific 'small-g' grounding relations; and of course (though I say this with tongue somewhat in cheek) a negative result is still a result. See, for example, Fine, 'Pure Logic of Ground'.

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References

Armstrong, D.M. *A Materialist Theory of the Mind*. London: Routledge, 1968.

Audi, Paul. 'A Clarification and Defense of the Notion of Grounding'. In *Metaphysical Grounding: Understanding the Structure of Reality*, ed. Fabrice Correia and Benjamin Schneider, 101–21. Cambridge: Cambridge University Press, 2012.

Bader, Ralf. 'Towards a Hyperintensional Theory of Intrinsicality'. *Journal of Philosophy* (forthcoming).

Barnes, Elizabeth. 'Emergence and Fundamentality'. *Mind* 121 (2012): 873–901.

Barnes, Elizabeth. 'Symmetric Dependence' (in progress).

Bennett, Karen. 'By Our Bootstraps'. *Philosophical Perspectives* 25 (2011): 27–41.

Bennett, Karen. *Making Things Up*. Oxford: Oxford University Press, forthcoming.

Broad, C.D. *The Mind and its Place in Nature*. London: Kegan Paul, 1925.

Chalmers, David. *The Conscious Mind*. Oxford: Oxford University Press, 1996.

Churchland, Patricia. *Neurophilosophy: Toward a Unified Science of the Mind/Brain*. Cambridge, MA: MIT Press, 1986.

Churchland, Paul. 'Eliminative Materialism and the Propositional Attitudes'. *Journal of Philosophy* 78 (1981): 67–90.

Clapp, Lenny. 'Disjunctive Properties: Multiple Realizations'. *Journal of Philosophy* 98 (2001): 111–36.

Correia, Fabrice. 'Ontological Dependence'. *Philosophy Compass* 3 (2008): 1013–32.

Correia, Fabrice, and Benjamin Schneider. 'Grounding: An Opinionated Introduction'. In *Metaphysical Grounding: Understanding the Structure of Reality*, ed. Fabrice Correia and Benjamin Schneider, 1–56. Cambridge: Cambridge University Press, 2012.

Correia, Fabrice, and Benjamin Schneider, eds. *Metaphysical Grounding: Understanding the Structure of Reality*. Cambridge: Cambridge University Press, 2012.

Daly, Christopher. 'Scepticism about Grounding'. In *Metaphysical Grounding: Understanding the Structure of Reality*, ed. Fabrice Correia and Benjamin Schneider, 81–100. Cambridge: Cambridge University Press, 2012.

Davidson, Donald. 'Mental Events'. In *Experience and Theory*, ed. L. Foster & J. W. Swanson, 79–101. New York: Humanities Press, 1970.

deRosset, Louis. 'Grounding Explanations'. *Philosophers' Imprint* 13, no. 7 (2013): 1–26.

Ehring, Douglas E. 'Part-Whole Physicalism and Mental Causation'. *Synthese* 136 (2003): 359–88.

Fara, Michael. 'Dispositions'. *The Stanford Encyclopedia of Philosophy* (Summer 2009 Edition), Edward N. Zalta (ed.). http://plato.stanford.edu/archives/spr2014/entries/dispositions/
Fine, Kit. 'Essence and Modality'. *Philosophical Perspectives* 8 (1994): 1–16.
Fine, Kit. 'Guide to Ground'. In *Metaphysical Grounding: Understanding the Structure of Reality*, ed. Fabrice Correia and Benjamin Schneider, 37–80. Cambridge: Cambridge University Press, 2012.
Fine, Kit. 'The Pure Logic of Ground'. *Review of Logic* 5 (2012): 1–25.
Fine, Kit. 'The Question of Realism'. *Philosophers' Imprint* 1 (2001): 1–30.
Gibbard, Allan. 'Contingent Identity'. *Journal of Philosophical Logic* 4 (1975): 187–222.
Heil, John. *The Nature of True Minds*. Cambridge: Cambridge University Press, 1992.
Hofweber, Thomas. 'Ambitious, Yet Modest Metaphysics'. In *Metametaphysics: New Essays on the Foundations of Ontology*, ed. David Chalmers, David Manley, and Ryan Wasserman, 260–89. Oxford University Press, 2009.
Horgan, Terry. 'From Supervenience to Superdupervenience: Meeting the Demands of a Material World'. *Mind* 102 (1993): 555–86.
Jenkins, C.S. 'Explanation and Fundamentality'. In *Varieties of Dependence: Ontological Dependence, Grounding, Supervenience, Response-Dependence*, ed. Miguel Hoeltje, Benjamin Schneider, and Alex Steinberg, 211–42. Munich: Philosophia Verlag, 2013.
Jenkins, C.S. 'Is Metaphysical Dependence Irreflexive?' *The Monist* 94 (2011): 267–76.
Kim, Jaegwon. 'Supervenience as a Philosophical Concept'. *Metaphilosophy* 21 (1990): 1–27.
Kim, Jaegwon. 'The Myth of Non-Reductive Materialism'. *Proceedings and Addresses of the American Philosophical Association* 63 (1989): 31–47.
Koslicki, Kathrin. 'The Coarse-Grainedness of Grounding' (forthcoming).
Koslicki, Kathrin. 'Varieties of Ontological Dependence'. In *Metaphysical Grounding: Understanding the Structure of Reality*, ed. Fabrice Correia and Benjamin Schneider, 186–205. Cambridge: Cambridge University Press, 2012.
Lewis, David. 'An Argument for the Identity Theory'. *Journal of Philosophy* 63 (1966): 17–25.
Lewis, David. 'Counterparts of Persons and Their Bodies'. *Journal of Philosophy* 68 (1971): 203–211.
Lewis, David. 'Reduction of Mind'. In *A Companion to Philosophy of Mind*, ed. Samuel Guttenplan, 412–31. Oxford: Blackwell, 1994.
Litland, Jon. 'Grounding Grounding' (in progress).
Lowe, E.J. *The Possibility of Metaphysics*. Oxford: Oxford University Press, 1998.
Macdonald, C., and Graham F. Macdonald. 'How to Be Psychologically Relevant'. In *Philosophy of Psychology: Debates on Psychological Explanation*, 60–77. Oxford: Oxford University Press, 1995.
McDaniel, Kris. 'Degrees of Being'. *Philosophers' Imprint* 13 (2013): 1–17.
McLaughlin, Brian. 'The Rise and Fall of British Emergentism'. In *Emergence or Reduction? Essays on the Prospects of Non-Reductive Physicalism*, ed. Ansgar Beckerman, Hans Flohr, and Jaegwon Kim, 49–93. Berlin: De Gruyter, 1992.
McLaughlin, Brian and Karen Bennett. 'Supervenience'. *The Stanford Encyclopedia of Philosophy* (Spring 2014 Edition), Edward N. Zalta (ed.). http://plato.stanford.edu/archives/spr2014/entries/supervenience/
Merricks, Trenton. *Objects and Persons*. Oxford: Clarendon, 2003.
Miller, Alexander. 'Realism'. In *Stanford Encyclopedia of Philosophy*, Spring 2012 edition. http://plato.stanford.edu/entries/realism
Nolan, Daniel. 'Metaphysics Outside Grounding'. Talk at CRNAP Workshop on Metaphysical Structure I: Contemporary Work, Princeton University, NJ, April 2013.
Paul, L.A. 'Coincidence as Overlap'. *Noûs* 40 (2006): 623–59.
Paul, L.A. 'Logical Parts'. *Noûs* 36 (2002): 578–96.
Place, U.T. 'Is Consciousness a Brain Process?'. *British Journal of Psychology* 47 (1956): 44–50.

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Putnam, H. 'Minds and Machines'. In *Dimensions of Mind*, ed. S. Hook, 57–80. New York: New York University Press, 1960.
Raven, Michael J. 'In Defence of Ground'. *Australasian Journal of Philosophy* 90 (2012): 687–701.
Rosen, Gideon. 'Metaphysical Dependence: Grounding and Reduction'. In *Modality: Metaphysics, Logic, and Epistemology*, ed. Bob Hale and Aviv Hoffman, 109–36. Oxford: Oxford University Press, 2010.
Schaffer, Jonathan. 'Grounding, Transitivity, and Contrastivity'. In *Metaphysical Grounding: Understanding the Structure of Reality*, ed. Fabrice Correia and Benjamin Schneider, 122–38. Cambridge: Cambridge University Press, 2012.
Schaffer, Jonathan. 'Monism: The Priority of the Whole'. *Philosophical Review* 119 (2010): 31–76.
Schaffer, Jonathan. 'On What Grounds What'. In *Metametaphysics: New Essays on the Foundations of Ontology*, ed. David Chalmers, David Manley, and Ryan Wasserman, 347–83. Oxford: Oxford University Press, 2009.
Schiffer, Stephen. *Remnants of Meaning*. Cambridge: Cambridge University Press, 1987.
Schneider, Benjamin. 'A Certain Kind of Trinity: Dependence, Substance, and Explanation'. *Philosophical Studies* 129 (2006): 393–419.
Shoemaker, Sydney. 'Functionalism and Qualia'. *Philosophical Studies* 27 (1975): 291–315.
Shoemaker, Sydney. *Physical Realization*. Oxford: Oxford University Press, 2007.
Shoemaker, Sydney. 'Realization and Mental Causation'. In *Proceedings of the 20th World Congress*, Vol 9: *Philosophy of Mind*, ed. Bernard Elevich, 23–31. A revised version appears in *Physicalism and its Discontents*, ed. Carl Gillett and Barry Loewer, 74–98. Cambridge: Cambridge University Press, 2001.
Sider, Theodore. *Writing the Book of the World*. Oxford: Oxford University Press, 2011.
Smart, J.J.C. 'Sensations and Brain Processes'. *Philosophical Review* 68 (1959): 141–56.
Thompson, Naomi. 'Metaphysical Interdependence' (in progress).
Trogdon, Kelly. 'An Introduction to Grounding'. In *Varieties of Dependence: Ontological Dependence, Grounding, Supervenience, Response-Dependence*, ed. Miguel Hoeltje, Benjamin Schneider, and Alex Steinberg, 97–122. Munich: Philosophia Verlag, 2013.
Trogdon, Kelly. 'Monism and Intrinsicality'. *Australasian Journal of Philosophy* 87 (2009): 127–48.
Wilson, Jessica. 'Causal Powers, Forces, and Superdupervenience'. *Grazer Philosophische Studien* 63 (2002): 53–77.
Wilson, Jessica. 'Determination, Realization, and Mental Causation'. *Philosophical Studies* 145 (2009): 149–69.
Wilson, Jessica. 'Fundamental Determinables'. *Philosophers' Imprint* 12 (2012): 1–17.
Wilson, Jessica. 'How Superduper Does a Physicalist Supervenience Need to Be?' *Philosophical Quarterly* 50 (1999): 33–52.
Wilson, Jessica. 'Much Ado about "Something"'. Review of *Metametaphysics: New Essays on the Foundations of Ontology*, ed. David Chalmers, David Manley, and Ryan Wasserman. *Analysis* 77 (2011): 172–88.
Wilson, Jessica. 'Non-Reductive Realization and the Powers-Based Subset Strategy'. *The Monist* 94 (2011): 121–54.
Wilson, Jessica. 'Supervenience-Based Formulations of Physicalism'. *Noûs* 39 (2005): 426–59.
Witmer, Gene, William Butchard, and Kelly Trogdon. 'Intrinsicality without Naturalness'. *Philosophy and Phenomenological Research* 70 (2005): 326–50.
Yablo, Stephen. 'Mental Causation'. *Philosophical Review* 101 (1992): 245–80.

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