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Grounds and 'Grounds'

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ABSTRACT
In this paper, I offer a new theory of grounding. The theory has is that grounding is a job description that is realized by different properties in different contexts. Those properties play the grounding role contingently, and grounding is the property that plays the grounding role essentially. On this theory, grounding is monistic, but 'grounding' refers to different relations in different contexts. First, I argue against Kit Fine's monist univocalism. Next, I argue against Jessica Wilson's pluralist multivocalism. Finally, I introduce monist multivocalism, explicate three versions of it, and show its advantages.

1. Introduction

The notion of grounding has played an increasing role in metaphysics over the last few years. Metaphysicians have put grounding to use in debates about composition, persistence, and mental properties, to name a few. The usual way of introducing the notion of grounding is by example: (I) truth is grounded in being, (II) the existence of singleton sets are grounded in the existence of their members, (III) existential generalizations are grounded in their instances, (IV) wholes are grounded in their parts (or vice versa), (V) holes in a piece of cheese are grounded in the piece of cheese, (VI) mental facts are grounded in physical facts, and the like. Since many debates in metaphysics revolve around grounding, it's useful for metaphysicians to investigate the notion.

Most people think that few or none of these grounding claims tell the whole story about the grounded things; for example, in most of these examples there are further grounds than just what is stated. It seems that these examples are examples of *partial grounding*. Partial grounding is compatible with whole grounding or full grounding; it might be that *x* partly grounds *y* and *x* wholly (or fully) grounds *y*. I will sometimes speak as though facts are the relata of the

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relation of grounding; though many people accept this, I speak this way for ease of example, and one can freely substitute other kinds of things.

In Plato's *Euthyphro*, Socrates wonders '... whether the pious or holy is beloved by the gods because it is holy, or holy because it is beloved of the gods' (10a). One way of construing the question is as a question of grounding.[1] For any act *A* such that *A* is holy and beloved by the gods, there are two facts: (1) [*A* is beloved by the gods] and (2) [*A* is holy].[2] The two might be co-extensive, or even necessarily co-extensive. But Socrates is asking Euthyphro whether (1) grounds (2), or vice versa.

So, it seems that we have an intuitive notion referred to by 'grounds,' that talk of grounding is meaningful, and that such talk can be used to formulate theses in metaphysics, ethics, and perhaps other areas of philosophy. However, there are a number of people that have challenged the legitimacy of appealing to grounding in philosophy.[3] Before we can rest content with attempting to figure out various grounding relationships, we must first defend the legitimacy of the enterprise. In this paper, I will do that, by arguing for a particular view of how to think about grounding and 'grounds.'

When it comes to 'grounding,' we have two options. First, we can treat 'grounds' as univocal, referring to a single relation on all occasions of use. Second we can treat 'grounds' as multivocal, referring to different relations on different occasions of use. When it comes to grounding, we have two options. First, we can be grounding monists, thinking that there is a single grounding relation (or that there are many grounding relations all of which bear an important relation to a single relation). Second, we can be grounding pluralists, thinking that there is no single relation of grounding and that the many relations referred to by 'grounds' are not importantly related to a single relation.[4] Perhaps it is most natural for grounding pluralists to think that 'grounds' is multivocal, and for grounding monists to think that 'grounds' is univocal – but one is a semantic thesis and one a metaphysical thesis, and they do not hang together.[5]

There are (at least) five things that a theory of grounding should explain:

(1) A lot of metaphysicians talk about grounding, think 'grounds' is meaningful, and agree about a lot of cases.
(2) There is a massive amount of disagreement about grounding.
(3) 'Grounding' doesn't seem to mean the same thing as 'ontological dependence,' 'parthood,' or any other particular grounding/dependence-related locution.
(4) There are a number of other terms that we can replace with 'grounds' and get truths.
(5) We can wonder whether a particular relation, like parthood or ontological dependence, is a grounding relation.

In this paper, I argue that monist univocalism (in this case, Kit Fine's version) and pluralist multivocalism (in this case, Jessica Wilson's version) can't explain all five. Monist univocalism can't explain (2) and (4), and pluralist multivocalism can't explain (1), (3), and (5). I offer a third option: monist multivocalism, which can explain all five. I give three versions of monist multivocalism – grounding as a determinable, grounding as a genus, and grounding as multiply realizable. I conclude with a few candidates for the determinates, species, or realizers of grounding.

2. Monist univocalist grounding

One well-developed attempt to work out a monist univocalist notion of grounding is that of Kit Fine.[6] In this section, I lay out some of the principles that Fine (and many others) takes to govern the logic of grounding. I then discuss what to make of the fact that there are many putative counterexamples to these principles, and also several other points of disagreement about grounding. I conclude that the monist univocalist can't explain the widespread disagreement about grounding.

Fine accepts fewer grounding principles than most other proponents of grounding. For example, most accept IRREFLEXIVITY ($\forall x \neg (xGx)$) and ASYMMETRY ($\forall x \forall y \neg (xGy \land yGx)$), but Fine does not. He thinks that there is a notion of grounding that is reflexive, which he calls 'weak ground,' and a notion of grounding that is irreflexive, which he calls 'strict ground.'[7] And he allows that there is a notion of grounding that 'moves us sideways in the explanatory hierarchy' (Fine 2012b), which may allow for a denial of ASYMMETRY. At least, it removes one motivation for accepting ASYMMETRY, which is that grounding ought to take us from the more fundamental to the less fundamental.

Here are some axioms and theorems of Fine's system:

TRANSITIVITY: $\forall x \forall y \forall z((xGy \land yGz) \supset xGz)$

FACTIVITY: $\forall x \forall y (xGy \supset (x$ is true $\land\, y$ is true)).

NON-MONOTONICITY: $\neg \forall x \forall y (xGy \supset (\forall z((x \land z)Gy)))$.

∃-GROUNDING: $\forall x (Fx \supset ([Fx]G[\exists y (Fy)]))$.

It is worth noting that not everyone who accepts talk of grounding accepts all of these principles. Nearly everyone accepts IRREFLEXIVITY, ASYMMETRY, and TRANSITIVITY.[8] Most people accept FACTIVITY and NON-MONOTONICITY, though they aren't explicitly mentioned as often as the first three. E-GROUNDING is mentioned even less often, but is accepted by some and not rejected by any.[9]

But there are many putative counterexamples to various conjunctions of the principles. The counterexamples are cases that we intuitively take to be cases of grounding, but which entail the falsity of at least one of the above principles. Wilson (2014) offers a counterexample to IRREFLEXIVITY, and Jenkins (2011) a counterexample to the conjunction of IRREFLEXIVITY and TRANSITIVITY. Schaffer (2012)

and Rodriguez-Pereyra (2015) give counterexamples to Transitivity. Rodriguez-Pereyra (2015) also offers a counterexample to the conjunction of Irreflexivity and Asymmetry. Barnes (Forthcoming-a), Thompson (2016), and Wilson (2014) argue against Symmetry. Finally, Fine (2010) gives a counterexample to the conjunction of Irreflexivity, Transitivity, Asymmetry, and ∃-Grounding.

2.1. Points of disagreement

So, we have a very well-developed theory of grounding, but we also have several counterexamples to the axioms that the theory takes to be partly constitutive of the logic of grounding. This is supposed to be the most minimal sort of theory, stating only the completely uncontroversial assumptions; but already there are half a dozen putative counterexamples that a number of people find compelling and a number find wrong. And these are all people who accept that talk of grounding is meaningful! There is widespread disagreement over whether certain axioms are true of grounding – axioms that its foremost proponents take to be partly constitutive of the concept of grounding. This serves as evidence that grounding is not univocal.[10] But there's more. Not only are there a number of putative counterexamples to the axioms of the most well worked out theory of grounding, but there is also major disagreement among grounding theorists who take grounding to be univocal over extra-logical features of grounding.

First, there is disagreement about whether grounding is a relation. Schaffer (2009) and Koslicki (2013) think that it is, while Fine (2012a) and Correia (2010) think that it's a logical operator or connective.

Second, there is disagreement about what the relata of the relation of grounding are, or what flank the sides of the logical connective. Schaffer (2009) and Cameron (2008) think they can be entities of any category at all, Rosen (2010) and Audi (2012) think they are facts, and Fine (2012a) thinks they are propositions.

Third, there is disagreement about whether grounding holds necessarily or contingently; or put differently, whether the grounding facts are necessary or contingent. Grounding necessitarians include Trogdon (2013), deRosset (2010), Chudnoff (manuscript), and Correia (2010). Contingentists include Schaffer (2010a), Schnieder (2006), and Skiles (2015).

Fourth, there is disagreement about whether grounding is explanatory. Fine (2012a) thinks that grounding is 'a distinctive kind of metaphysical explanation' (37), and deRosset (2013) and Rodriguez-Pereyra (2005) agree. Audi (2012) and Schaffer (2012) disagree; at least, they think that a grounding relation is not sufficient for an explanatory relation.

In light of all this disagreement, we might well wonder what they all agree about. The answer is that they agree about a lot of the cases. They also agree that for any x, x partly grounds $\{x\}$, and x partly grounds x's shadow; although

even here, they will disagree about the relata – some will say that '*x* partly grounds {*x*}' really means that the fact that *x* exists partly grounds the fact that {*x*} exists, and similarly for objects and shadows. Most importantly, they agree that 'grounds' is meaningful – there is something that answers to it.

2.2. *Responding to the disagreement*

There is not a single principle about grounding that is universally accepted, and there are a host of other disagreements beside.[11] The number and variety of counterexamples to the grounding 'axioms,' in addition to the disagreement about the nature and relata of the relation of grounding, should leave the reader somewhat unsettled as to the prospects of affirming a univocal notion of 'grounds.' So, we have a choice to make.

In this case, it's not clear what would legitimate denying the counterexamples and being confident in one's denial. One is supposed to have latched on to grounding through the very sorts of examples that end up undermining one's belief that it has the features it does. Why throw out these putative counterexamples as cases of grounding instead of those at the beginning of the paper by which I introduced the notion of grounding? And given the variety of the counterexamples and the different principles to which they are counterexamples, one can hardly be confident that one's intuitions are correct.

The second option is to deny some of the principles, and retain others. But it is not clear which principles to deny, and which to retain. We arrived at the principles through reflection on what we took to be paradigm cases and on the nature of grounding. It's not clear, once we learn that our intuitions regarding grounding have led us astray, what legitimates retaining any of the principles ahead of the others.

These are options that retain both monism and univocalism. Another option is to abandon univocalism – remain a monist about grounding but admit that 'grounds' is multivocal, and offer a number of relations it denotes. I dedicate §4 and §5 to investigating this option. A final option is to abandon both monism and univocalism, admitting that 'grounds' is multivocal and that there is no connection between the relations that serve as the various meanings of 'grounds.' This is the topic of the next section.

3. Pluralist multivocalist grounding

Wilson (2014) has recently argued that there is no motivation for positing a relation of grounding, since grounding is neither necessary nor sufficient for investigations into metaphysical dependence.[12] In light of the argument of the previous section, this may seem like the right conclusion to draw. So, in order to show that treating grounding as monists do is the best option, I shall first argue against Wilson's pluralist multivocalism.

Wilson claims that we do not need to posit a relation of Grounding (with a capital 'G') because we already have grounding relations (lowercase 'g').[13] Her examples of grounding relations are parthood, identity, and realization (and there are some other candidates). We can do everything with these (grounding) relations that is supposed to be done by Grounding, and more besides. So, she argues, positing Grounding in an addition to the (grounding) relations is unmotivated.[14]

I have four objections to Wilson's proposal. To foreshadow, though: despite my objections, I accept the charge that grounding theorists need to do more to motivate the posit of Grounding, and §4–5 is my attempt to to do so.

My first objection to Wilson concerns her use of the phrase 'grounding relation' when arguing that we don't need to talk of Grounding. The objection is that 'grounding' *is* necessary to investigate relations of metaphysical dependence; if Wilson didn't use 'grounding relation,' she couldn't state her thesis, nor attempt to explain away our use of 'grounding.' For example, if we replaced every occurrence in her paper of 'grounding relation' with a disjunction of the grounding relations – 'type or token identity, functional realization, classical mereological parthood, set membership, the proper subset relation, and the determinable/determinate relation' – the reader would be unsatisfied. We'd be left with questions like, 'why did those relations make the list?,' 'what unifies these relations?,' 'should we add more relations to this list?,' and the like.[15] What gets purchase is the phrase 'grounding relation,' because it seems to be about Grounding. So, Grounding is necessary for investigating metaphysical dependence.

Certainly 'grounding relation' can't just mean 'a relation that is not Grounding but necessarily holds between all and only pairs between which Grounding also holds'; if it did, then no progress has been made at all. Wilson isn't merely replacing 'Grounding' with 'a grounding relation.' If Wilson's arguments succeed, then we should *in principle* be able to do all our investigations into metaphysical dependence without using 'Grounding' or 'grounding' or 'grounding relation' or 'dependence' or anything like that; we should be able to make do with 'part,' 'identity,' and the like. But it is not at all clear that we can; for one, even Wilson uses 'grounding relation.' So, there's still work for Grounding to do – at least it can serve as the unifier of the various grounding relations. It's what they all have in common in virtue of which they are grounding relations, and *to the left of* is not.

I think this is a natural thought. And I think the best way to make sense of it is to think that Grounding is a determinable or genus or is multiply realizable, and the determinates or species or relations that realize it are unified in virtue of standing in a certain relation to Grounding; this is what I'll sketch out and argue for in the next section. But Wilson rejects it, specifically considering proposals that posit Grounding as a unifier of a number of (grounding) relations. First she

attempts to remove the motivation for positing such a unifying relation. She says

> . . . 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 commonalities at issue . . . Why suppose that such commonalities support a distinctive, much less primitive, metaphysical posit – Grounding? . . . Nor do the formal features associated with the specific relations, even in cases where they serve as grounding relations, serve as evidence of real unity. (567–568)

I agree. But I respond that the unity is not to be found in the formal features, but in the fact that all of them are grounding relations! The difference in the formal features of the relations referred to by 'grounds' is reason to think there is not one single relation referred to in every occasion of use, but many; it is not reason to think the many relations are not unified. So we still find ourselves with reasons to think that there is a unifying relation, and I don't think Wilson has shown that we shouldn't think so – at least, if one is antecedently inclined to think that Grounding unifies the grounding relations.

Next she attempts to argue against such proposals by pointing to the similarity between the case of grounding and the cases of determinables and entities posited by the special sciences. Determinables and entities posited by the special sciences enjoy the same sort of unity considerations given for Grounding, but we standardly give a deflationary treatment of them – this gives us reason to resist positing an irreducible relation in the case of grounding until more than just the unity argument is given.

I have three responses. The first is to suggest that not all determinables and entities posited by the special sciences are given deflationary treatments. Color is a determinable, as is redness; but there is a lively debate as to whether we should posit them. Mass and charge are determinables, but we posit them. And as Wilson (2012) herself has shown, there are good reasons to accept determinables as not only real, but fundamental.

Second, even if we don't posit new things in the case of determinables and special science entities, there are other cases of unity where we do posit new things. For example, we notice that what would have been, what could have been, what couldn't have been, and what must be are unified – and we posit possible worlds as the unifier. We notice that some things are right, some things are wrong, and that we blame people – and we posit moral properties as the unifier. We notice that some things are similar and seem to have something in common, and that we describe things with adjectives – and we posit properties.

Third, I concede that Wilson has shown us that we don't *have to* posit an irreducible grounding relation just because of unity by showing that we don't in other cases of unity. And in the end, it's best not to posit things unless we have to. So the third response is to accept Wilson's charge that we need more reason to posit a unifier in the form of Grounding, and direct the reader's

attention to §4–5. I give several ways to understand grounding that are monist and multivocalist. If the reader finds one of them attractive, and thinks that grounding understood in that way shouldn't be given a deflationary treatment, then we'll have more reason to posit Grounding.

My second objection is that Wilson does not have the resources to make sense of a debate that seems substantive. Consider the debate between priority monists like Schaffer (2010b) who think that the Cosmos grounds the existence of everything, and mereological universalist priority atomists, who think that the smallest things ground the existence of everything. Both camps agree that atoms, medium-sized objects, and the Cosmos exist. Both camps agree that the atoms are proper parts of the medium-sized objects, and that the atoms and medium-sized objects are proper parts of the Cosmos. But they differ as to which direction the relation of grounding holds; one side says parts ground wholes, and other that wholes ground parts. If one can only speak of grounding relations (like parthood) and not Grounding, then there is no debate here. But it seems clear to many that there is.

Wilson does countenance a notion of absolute fundamentality, so she would presumably respond to the objection by saying that the debate between priority monists and mereological universalist priority atomists is the debate over whether the Cosmos is fundamental or the smallest things are fundamental. But then we can replace the Cosmos and the smallest things with two groups of things that nobody takes to be fundamental. Say, hands and arms and bodies. Two people could agree about all the parthood facts (hands are parts of arms and bodies and arms are parts of bodies) and all the absolute fundamentality facts, but disagree about the grounding facts – some will say that hands ground arms and bodies and some will say that bodies ground arms and hands.[16]

Note that grounding claims can't just be fixed by relative fundamentality claims, because there are lots of cases where x is more fundamental than y but x doesn't ground y. For example, any electron in my hand is more fundamental than the Eiffel Tower, but none of them ground the Eiffel Tower. There have to be other relations the things in question stand in, which is surely part of the reason Wilson uses other grounding relations (like parthood) and not just relative fundamentality. Additionally, even if both camps agree that atoms, medium-sized objects, and the Cosmos exist, that the atoms are proper parts of the medium-sized objects, and that the atoms and medium-sized objects are proper parts of the Cosmos, and that the atoms are more fundamental than the medium-sized objects and the Cosmos and the medium-sized objects are more fundamental than the Cosmos, they might still disagree about the grounding facts. This is because one group might think that parthood is not a grounding relation, and so the atoms are part of the medium-sized object and more fundamental than the medium-sized object but don't ground the medium-sized object.[17]

This leads to my third objection. Those who think there is such a relation as Grounding would put it this way: it's intelligible to think (even if it's false) that, for many of the relations Wilson considers grounding relations, sometimes those relations hold between pairs of objects between which Grounding also holds, and sometimes they don't. More precisely: For most relations R (that Wilson considers grounding relations), there is some x and y that stand in R such that x grounds y, and there is some a and b that stand in R such that a does not ground b. We must be able to say something further about x and y that we can't say about a and b; it's not that they stand in R, since so do a and b. What a Grounding theorist wants to say is that there is a further relation that holds between x and y that doesn't hold between a and b – Grounding. For example, sometimes there's an x and y such that x is a part of y and y grounds x, but sometimes there's an x and y such that x is a part of y and y doesn't ground x.[18] Even if it turns out that all grounding relations are either always accompanied by Grounding or never accompanied by Grounding, it's at least an intelligible position in metaphysics to say that there are grounding relations that are only sometimes accompanied by Grounding. But if Wilson is right, that's impossible.

Fourth and finally, there are metaphysical views that we should be able to state that we cannot state if we are only allowed specific grounding relations and not Grounding. For example, suppose Duncan is a physicalist in the following sense: he thinks mental properties are grounded in physical properties. He knows which options are available to him: type-identity, token-identity, and epiphenomenalism. Duncan is considering only these options *precisely because* he accepts the thesis that everything is grounded in the physical. But he has no idea in which particular grounding relation the physical stands to the mental, and he has no commitments at all about absolute fundamentality. Without 'Grounding' or 'a grounding relation,' how can this view be expressed? It's not that Duncan thinks that physical properties are fundamental and mental properties are not; Duncan might think there is no fundamental level, or he might think that something else is fundamental and the physical is grounded in it, or he might just not even think about fundamentality. Yet he can still be firmly committed to the grounding thesis. Wilson's proposal cannot make sense of this.

Wilson says two things that might relate to this. First

> 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?) (Wilson 2014, 564).

But Duncan doesn't characterize the former goings-on as non-fundamental; he might not characterize *anything* as fundamental or non-fundamental, because he might have absolutely no views about what is fundamental and what is not or whether anything is.

Second, '. . . 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' (Wilson 2014, 557). So Wilson would suggest we state Duncan's view like this: he thinks mental properties are parts of physical properties, or identical to physical properties, or emerge from physical properties, or . . .. But in the case I'm considering, that description is apt precisely *because* he thinks those options have it that the mental is grounded in the physical. Suppose someone gave him a fourth option: syntate physicalism. Duncan has never heard of it, so his first question is: 'Does this view have it that mental properties are grounded in physical properties?' The person responds by telling him that the view has it that mental properties are syntated on physical properties. Duncan responds, 'Well, is *syntation* a grounding relation?' It seems clear to me that this is a tenable position for Duncan to have, that it shouldn't be given a deflationary explanation, and that Wilson's system does not have the resources to explain it except in deflationary terms.

Pluralist multivocalist grounding can't explain why so many philosophers go in for talk of grounding, it can't make sense of why 'grounding' doesn't seem to mean the same thing as any particular grounding relation, and it can't explain our tendency to refer to some relations as 'grounding relations' as though there's some important thing they all have in common.

While I don't agree with Wilson's pluralism, I do agree with her multivocalism – '. . . [investigations of certain forms of dependence] take the idioms of of metaphysical dependence ("in virtue of," "nothing over and above," "grounded in") to be schematic placeholders for specific metaphysical relations that we have independent reason to accept . . .' (Wilson 2014, 539). But I don't agree that there is nothing unifying these specific metaphysical relations. Grounding unifies them. I shall now sketch a view whereby there are many grounding relations, unified by Grounding.

4. Monist multivocalist grounding

One way to respond to the drawbacks of monist univocalism and pluralist multivocalism is monist multivocalism – Grounding is the unifier of a group of relations, and 'grounding' can mean one or more of the grounding relations depending on the context. There are (at least) three ways to make sense of this. One is to think of Grounding as a genus, which admits of several species, and sometimes 'grounding' is used instead of the name of the particular species. Another is to think that Grounding is a determinable, and there are several determinates of it. A third is to think that Grounding is multiply realizable.

On some understandings of the determinate/determinable relationship and the genus/species relationship, *being a member of [genus/determinable]* is grounded in *being a member of [species/determinate]*. If such a view is right,

then one might worry that grounding is grounded in its determinates/species/realizers.[19] I have three responses to this worry. The first is to note that it doesn't follow from '*x*'s being colored is grounded in *x*'s being red' that the existence of the property *being colored* is grounded in the existence of the property *being red*. The second is that there may be something to genera/determinables over and above the conjunctions of their specific species/determinates. For example, Wilson (2012) argues that fundamental laws are formulated in terms of determinables, so determinables are fundamental (and therefore, given standard views of the connection between grounding and fundamentality, not grounded in their determinates). Finally, even if it turns out that grounding is grounded in each of the grounding relations, that is consistent with monism. Monism says that there is a single unified relation of grounding – that can be true even if that unified relation bears itself to the relations that unify it. This doesn't diminish the existence of grounding – only whether it's fundamental.[20]

So, the varieties of monist multivocalism I offer are genuinely monist. I don't wish to side with any of the particular ways of cashing out monist multivocalist grounding (though I do have a favorite), but to argue that some version of it is right, and to show what some versions would look like. There may well be other (better) versions of monist multivocalist grounding than the three I canvas here.

4.1. Determinable/determinate

The distinction between determinables and determinates is usually introduced by example. *Being colored* is a determinable, and *being red* is a determinate. *Being red* is a determinable, and *being scarlet* is a determinate. *Being red* is a determinate of *being colored*, and *being scarlet* is a determinate of both *being red* and of *being colored*. *Having 2 grams mass* is a determinate of *having mass*.

A rough characterization: *F* is a determinate of *G* just in the case that everything that is an *F* is a *G* and not everything that is a *G* is an *F*. Of course, this will have to be tweaked – it might be that everything that is red is square, but there are also blue squares; in such a case, the definition would have it that *being red* is a determinate of *being square*, which we don't want to say. One might construe the conditional as entailment – *F* is a determinate of *G* just in the case that necessarily, everything that has *F* has *G* and not everything that has *G* has *F* – but this won't do either. On this construal, *being a bachelor* turns out to be a determinate of *being rational*, and nobody wants that.

Funkhouser (2006) has laid down the following criteria for being a determinable-determinate relationship.[21]

(1) For an object to have a determinate property is for that object to have the determinable properties the determinate falls under in a specific way.

(2) An object instantiating a determinable must also instantiate some determinate under that determinable.

(3) Determinates under the same determinable admit of comparison in a way unavailable to pairs of properties with no determinable in common.

(4) The transitive chain of a determinable and the determinates under it does not go on forever; at some point there is a property that does not allow of further determination.

This is a good guide to determining whether something is a determinable. And it seems like the criteria are met by Grounding and the grounding relations – truthmaking, metaphysical explanation, ontological dependence, and reductive analysis. More details about these grounding relations will come in §5.

4.2. Genus/species

The genus/species relationship is similar to the determinable/determinate relationship. The rough characterization is the same: *F* is a species of *G* just in the case that everything that is a member of *F* is a member of *G* and not everything that is a member of *G* is a member of *F*.[22]

A species is a specific way of having a genus. The usual way of explaining species is that they are genera plus differentia. To characterize a species, one gives the genus that it falls under and a characteristic that distinguishes it from the other species that fall under that genus. One can do that with Grounding. The essence of truthmaking is that it's the grounding of a thing's truth in an object. The essence of metaphysical explanation is that it's the grounding of a thing's truth in other, usually more fundamental, truths. The essence of ontological dependence is that it's the grounding of a thing's existence in another thing's existence. The essence of reductive analysis is that it's the grounding of some facts about a thing or kind of thing in some facts about some other (standardly thought to be more fundamental) thing or kind of thing.

The genus/species relationship doesn't satisfy all the conditions for being a determinable/determinate relationship; the two are distinct. For example, the first condition of the determinable/determinate relationship is: for an object to have a determinate property is for that object to have the determinable properties the determinate falls under *in a specific way*. But being a man isn't a way of being an animal, and being an isosceles triangle isn't a way of being a triangle. Men are kinds of animals and isosceles triangles are kinds of triangles, but being the former isn't a way of being the latter. Not in the way that being red is a way of being colored, or having a mass of 6 grams is a way of having mass.

Another condition on the determinable/determinate relationship is that an object instantiating a determinable must also instantiate some determinate

under that determinable. If this were true of the genus/species relationship, the thought would be that an object that is a member of a genus must also be a member of some species of that genus. But there are genera that have only one species. For example, the giant tube worm is Riftia Pachyptila – but there are no other species of the genus Riftia. So if a species is a genus plus a differentia, then since there's nothing differentiating Riftia Pachyptila from the other Riftia species (since there are no other Riftia species), then the giant tube worm doesn't belong to any species falling under the genus Riftia.

4.3. Multiple realization

Multiple realization is standard fare in the philosophy of mind. The classic example is pain, which is multiply realizable, realized by a number of different neurological states or properties. This is not to say that there is no such thing as pain, but that 'pain' picks out different neurological states in different contexts, and they are importantly unified – they are all ways of being in pain. My dog Sprecher and I have different neurological structures, and there are many neurological states that each of us might be in when we truly describe ourselves as being in pain (if he could do so).

My favored framework at present for thinking about grounding is to think of Grounding as multiply realizable. On this view, Grounding is realized by a number of different dependence-related properties. This is not to say that there is no such thing as Grounding, but that 'grounds' picks out different grounding relations in different contexts (sometimes Grounding), and they are importantly unified – they are all ways of being grounded.

An application of multiple realization that helps us understand how we can apply it to grounding can be found in Michael Lynch's *Truth as One and Many* (2009). Lynch (2009) is a monist multivocalist about truth. Here's how we can use the framework he sets up to be monist multivocalists about grounding, by thinking of Grounding as multiply realizable.

What we want is to be able to say that (1) there is a single property/relation named by 'Grounding' that all and only things where one grounds another have the property or stand in the relation, and (2) there is more than one way to have that property or stand in that relation, i.e. there is more than one way to ground or to be grounded.

Lynch's view of truth is that the properties that can determine that propositions are true are the ones that play the truth role. The truth role is a job description, and some properties in some contexts play it. We can say the same thing about grounding; the grounding role is a job description, and different properties play it in different contexts. As a first pass, the job description for the grounding role is something like: relates the fundamental to the non-fundamental, relates the relatively more fundamental to the relatively less fundamental, lays out the structure of the world, says which things depend

on which other things, explains why something exists, and explains why something has a property. If a relation in a context does all those things, it's a grounding relation. If it does a few, but not all, it might be.[23] And Grounding is the relation that does all of those things *essentially*.[24] No property other than Grounding realizes grounding in *all* instances of grounding. A relation is a grounding relation because it satisfies (enough of) the job description in a particular instance. Most properties that play the grounding role do so accidentally; Grounding is the unifier of them because it plays the grounding role essentially.

   This is a monist multivocalist view of grounding. It is multivocalist because 'grounds,' on different occasions of use, picks out many different properties that realize Grounding. It is monist because there is a single property so realized – Grounding – which is the property that has the grounding features essentially. Grounding is the unique property that, necessarily, relates the fundamental to the non-fundamental, relates the relatively more fundamental to the relatively less fundamental, explains why something has a property, lays out the structure of the world, and says which things depend on which other things.

   We can explicate the view this even further by supplementing the proposal with a proper subset account of realization: where M realizes F, F's essential features are a non-empty proper subset of M's features.[25] Where a relation R realizes grounding, grounding's essential features (listed above) are a proper subset of M's features; M will also have features like having particular relata, obeying certain axioms, and so on. Next, I consider which relations might realize grounding.

5. Grounding relations

So far I have argued that we should be monists about grounding, but that 'grounds' refers to different things in different contexts, and these things form a unified group. In the remainder, I offer a few examples of what these things are – the properties that play the grounding role.[26] In what follows, I'll refer to the thesis that 'grounding is a genus or determinable or multiply realizable' as the thesis that 'grounding is a specification relation.' And I'll refer to the species or determinates or relations that realize Grounding as Grounding's 'specifics.'

5.1. Ontological dependence

This is a notion that Koslicki (2013, 2012), Lowe (1994), Fine (1995), and Correia (2008) are talking about. It holds between two objects, like a singleton and its member (the set ontologically depends on the member), a hole and its host (the hole ontologically depends on the host), a whole and its parts (there is dispute over which direction the ontological dependence goes in this case). It also holds between a fist and a hand, a smile and a mouth, and other such pairs.

It is when something depends for its very existence on something else, or when something depends for its very essence on something else.[27] It is non-reflexive, non-symmetric, and transitive. And it seems that ontological dependence does not hold of necessity.

Some of the standard paradigm cases of grounding are cases of ontological dependence: a set is grounded in its members, a hole is grounded in its host, a whole is grounded in its parts, and the like. Ontological dependence relates things to more fundamental things. And grounding can hold between things that don't ontologically depend on each other (e.g. the fact that I am a philosopher grounds the fact that there are philosophers, but the latter does not depend on the former for its existence or essence).

5.2. Truthmaking

Truthmaking holds between a truth-bearer (sentence, proposition, etc) and a thing (the kind of thing is up for debate). It holds when the truth-bearer is true in virtue of the thing, or when the truth-bearer is true because the thing exists and is the way it is.

Truthmaking is non-reflexive, non-symmetric, and non-transitive. It is non-reflexive because there might be propositions like [this proposition is about itself], in which the proposition is the truthmaker for itself. It is non-symmetric rather than asymmetric because there might be pairs of propositions like [The proposition expressed by the sentence appearing after this sentence is about this sentence] and [The proposition expressed by the sentence appearing before this sentence is about this sentence]. It non-transitive because it is neither transitive nor intransitive. It is not transitive because in most cases the thing doing the truthmaking is not a proposition; for example, Barney the blue fish might make true the proposition <some fish are blue>, and <some fish are blue> might make true <There are propositions about fish>, but Barney the blue fish doesn't make true <There are propositions about fish>. But truthmaking is not intransitive because there are cases in which there are three propositions p, q, and r such that p makes q true, q makes r true, and p makes r true. As in <Barney is a blue fish> makes true <There are propositions about blue fish>, which in turn makes true <there are propositions>; and <Barney is a blue fish> makes true <There are propositions>. (After all, things can have multiple truthmakers.) Additionally, it seems that NON-MONOTONICITY is false when the relation of grounding in question is truthmaking.

It used to be thought or hoped that truthmaking could be understood using a supervenience principle: x makes p true just in the case that necessarily, if x exists, then p is true. But according to this view everything makes necessarily true propositions true, and impossible things make everything true; but this is implausible. Lately some philosophers have proposed understanding truth-making in terms of grounding.[28] This is some reason to think truthmaking is a

specific of grounding. Another is that grounding or dependence language is often used in giving informal statements of the intuition behind truthmaking: 'truth depends on the world,' 'truth is grounded in being,' 'what there is grounds what's true,' and the like.

5.3. Reductive analysis

A standard attempt at a reductive analysis is reductive physicalism, which is often put thus: mental events *just are* physical events. It is standard to interpret *just are* as an identity claim; 'x just is y' = df. $x = y$. But that analysis doesn't seem to capture the asymmetry or the dependence that reductive physicalists really want. It's not *merely* that every mental event is identical to a physical event. Without notions of grounding or dependence, we can't put the thesis any stronger than something intensional, and reductive physicalists seem to want something hyperintensional. Reductive analysis is asymmetric, irreflexive, and non-transitive. And FACTIVITY is false of reductive analysis.

We can give some more examples of reductive analysis: what it is to be a bachelor is to be an unmarried male, what it is to be grue is to be green and examined before time t or blue and not examined before t, what it is for my fist to exist is for my fingers to be curled into my palm, mental properties just are physical properties, squares just are equilateral rectangles, water just is H_2O, the property *being morally wrong* just is the property *being generally disapproved of*, and so on. There is debate over what reductive analyses are, and I shan't enter too far into it. Suffice it to say that these are not merely claims about language use or conceptual analysis; they are metaphysically interesting claims about properties and objects and natural kinds.

There are two reasons to think that reductive analysis is a specific of grounding. First, many of the standard cases of reductive analysis are also cases of grounding. For example, 'mental events just are physical events' and 'mental events are grounded in physical events'; 'modal facts are reducible to actual facts' and 'modal facts are grounded in actual facts'; 'tensed truths are reducible to tenseless truths' and 'tensed facts are grounded in tenseless facts.' And so on.

The second is by reflection on what one is doing when one gives a reductive analysis. One is saying that some particular thing or kind of thing A is to be understood in terms of some other thing or kind of thing B. It would be odd, in such a case, if one thought that B is less fundamental than A, even though A ought to be reduced to B. Why would we reduce something that's more fundamental to something that's less fundamental? However, one might think that A is reducible to B even though A and B are equally fundamental. Of course, someone who thinks that might think the same thing in the case of grounding; it might be that A grounds B, and A and B are equally fundamental. As long as one thinks that reductive analysis and grounding both have the same profile

with respect to the relative fundamentality of the relata, it seems natural to think of reductive analysis as a specific of grounding.

5.4. Metaphysical explanation

Metaphysical explanation holds between two propositions, or two facts, or a proposition and a fact. The intuitive thought behind metaphysical explanation is that x metaphysically explains y only if y is *not* reducible to x, but y because (in the non-causal sense of 'because') x. That is, either y is true because x is true, or y obtains because x obtains, or y is true because x obtains, or y obtains because x is true.[29] So, a candidate metaphysical explanation for 'This ball is red' is 'This ball stands in the instantiation relation to the Platonic universal redness.' A candidate metaphysical explanation for 'Jeremy played soccer as a child' is 'Jeremy has past temporal parts some of which are playing soccer.' 'This ball stands in the instantiation relation to the Platonic universal redness' and 'Jeremy has past temporal parts some of which are playing soccer' likely admit of further metaphysical explanation. Metaphysical explanation is different than reductive analysis, in that when one reductively analyzes x as y, one purports to say *everything* captured in x by saying y, but by using more fundamental terms, whereas with metaphysical explanation this is not the case.

So, x metaphysically explains y just in the case that (i) x does not cause y, (ii) y is not reducible to x, and (iii) y because x. What of the formal features of metaphysical explanation? If nothing can non-causally explain itself, then metaphysical explanation is irreflexive; but it is not obvious that that is the case. The big bang might non-causally explain itself; it certainly seems like nothing else can explain it, since nothing else was around to. However, perhaps it's unexplained. If one thinks that everything has a metaphysical explanation, then one either ought to think explanations go on infinitely, or that some things explain themselves. If some things explain themselves, metaphysical explanation is not irreflexive. As to transitivity, it again seems that the counterexamples above tell against metaphysical explanation being transitive. Anyone who has an inkling that the counterexamples might be true ought to postpone judgment on whether metaphysical explanation is transitive.

Metaphysical explanation is likely the relation of grounding had in mind when one thinks of E-GROUNDING, and when one claims that knowledge is partly grounded in truth.[30] One can see why it's important to distinguish between metaphysical explanation and reductive analysis: they hold between the same sorts of entities, and they both have a claim to be what we mean when we say 'x because y,' or 'x grounds y.' But they have different features, formal and otherwise. The failure to distinguish between the two may very well be the cause of some of the warring intuitions about certain putative cases of grounding.

One reason to think that metaphysical explanation is a specific of Grounding is that it links less fundamental truths with more fundamental truths, just as

grounding links the less fundamental with the more fundamental. Another reason to think that metaphysical explanation is a specific of grounding is that E-GROUNDING is most plausible when thinking of grounding as metaphysical explanation.

6. In favor of monist multivocalist grounding

Grounding might have more specifics than mentioned above. For example, some want to say that the fact that I have two legs partly grounds the fact that I can walk, but it's not clear that this specific of grounding is one of the four listed above.[31] There is room to further explore the potential species of Grounding, and what principles might be true of them. We'll have found them when everything that's grounded stands in one of them, the way to ground or be grounded is to stand in one of them, and they bear a great deal of similarity to each other. They might also have their own specifics.

The first reason to think that grounding is a specification relation is that it explains the widespread disagreement about the axioms, principles, and counterexamples concerning grounding; that is, it explains why principles that some grounding theorists think are partly constitutive of grounding are denied by other grounding theorists. If there are multiple distinct relations on to which we are latching when we hear 'grounds,' this is not surprising. Someone is thinking about one of them, while others are thinking about different ones. The relations are importantly unified, but lack a single set of formal features.

Second, thinking that grounding is a specification relation allows us to explain the tight conceptual connection between ontological dependence, truthmaking, metaphysical explanation, and reductive analysis. They seem to be related, since they are all 'in virtue of' locutions, or they are all non-causal explanations, or the like. Various people have argued that we should understand 'grounds' in terms of each of these notions. And people freely substitute 'grounds' or 'is grounded by' for 'makes true,' 'ontologically depends on,' 'metaphysically explains,' and 'is a reductive analysis of.' Monist multivocalist grounding makes sense of this tendency. We can say that the properties in question fall under the same general, and that explains why we think that they have something in common and substitute 'grounding' for each of them. And since we don't freely substitute 'ontologically depends on' for 'is made true by,' or 'makes true' for 'is a reductive analysis of,' or in fact any specifics of grounding for any other, 'grounds' is the best candidate for being the general. Ontologically depending on something, being reductively analyzed as something, being made true, and being metaphysically explained by something are all ways of being grounded.

Third, people speak of grounding as though it can take as relata a wide variety of things. It can hold between two objects, an object and a trope, an object and an absence, a proposition and an object, a proposition and an

object in a different way, two propositions, two facts, a fact and an object, a fact and a proposition. However, there is substantial disagreement over the truth of the last two sentences; some people think that grounding holds only between facts, some thinks it holds only between propositions, and some think it holds only between objects. Monist multivocalist grounding can explain this: they have latched on to one of the specifics of grounding and are calling it 'grounding.'

Fourth, thinking that grounding is a specification relation is the best way to respond to the purported counterexamples. The other responses are costly, and this response allows us to respect the counterexamples and the intuitions about the principles.

Finally, it might be that some of these relations are also specification relations. Perhaps there are specifics of ontological dependence, like existential dependence and essential dependence.[32] Perhaps there are specifics of reductive analysis or metaphysical explanation. Perhaps there are different specifics of truthmaking.[33] Thinking that there are specifics of grounding opens the door to thinking that there are specifics of these other relations as well.

Thinking that grounding is a specification relation does not mean we should eliminate grounding, any more than we should eliminate *being an animal*. Often we can recognize that *some* specific of grounding holds before we can properly categorize *which* specific of grounding it is; so there is still work for grounding, and work for 'grounds.' Furthermore, we can make interesting claims about grounding. For example, 'everything either grounds something or is grounded.' I think we can make sense of this, and more than that – it will probably strike many people as plausible, much like, 'anything that's extended is colored.'

Consider again color, and the claim that color is a specification property – in this case a determinable. Often we can recognize that *some* specific of color holds before we can properly categorize *which* specific of color it is – we might be quite far away, for example. And saying that color is a determinable doesn't mean that it's nothing over and above all the particular colors. And it certainly isn't to say that there's nothing interesting that unifies the colors in virtue of which they're all *colors*. Just because there are many color properties doesn't mean that color itself doesn't exist or is uninteresting. And just because there are many grounding relations doesn't mean that grounding itself doesn't exist or is uninteresting.

One might worry that the specification relations (determination, genus/species, realization) are grounding relations, and so it turns out that grounding is grounded in the grounding relations and so is less fundamental than each of them.[34] First, it's not clear that the specification relations are grounding relations. For example, if determinables like mass and charge can be more fundamental than determinates, then determinates are not necessarily grounded in their determinates; grounding might be like mass and charge

in this respect.[35] There is reason to think mass and charge are fundamental given their appearance in physical laws; there is a good reason to think that grounding appears in metaphysical laws, so that may give us similar reason to think that grounding is fundamental. At the very least, the fact that it bas specifiers isn't sufficient to show that it's grounded in them. Second, even if grounded is grounded in the grounding relations, that doesn't mean it's useless. It may still be important for metaphysical theories, for providing a grounding for the similarity between the grounding relations,[36] or for as-yet-undiscovered reasons.

So there is a use for grounding; but once we recognize a case of grounding, the work is not over.[37] We must figure out which specific of grounding holds in the particular case. And perhaps more.

7. Conclusion

'Grounds' is either univocal, multivocal, or doesn't refer to anything. Grounding is either one relation, many relations, or there is no such relation. A univocalist about 'grounds' thinks that the word has only one sense in metaphysics, and means the same thing across contexts (not including the sense of the stuff under our feet). A multivocalist about 'grounds' thinks that there are many sense of the term 'grounds,' and that at various times it's used in different ways. A pluralist about grounding thinks there a multitude of different relations that answer to the concept. A monist about grounding thinks that there's a distinguished relation that answers to the concept of grounding. There are two ways to be a monist. Some monists think that there is only one relation answering to the concept of grounding, while others think there are many relations, all explicable in terms of – or reducible to – one central notion.

I have argued that monist multivocalism is the best explanation for the following five theses: (1) A lot of metaphysicians talk about grounding and think 'grounds' is meaningful, and they agree about a lot of cases. (2) There is a massive amount of disagreement about grounding. (3) 'Grounding' seems to mean something, and it doesn't mean the same thing as 'ontological dependence,' 'parthood,' or any other particular dependence-related locution. (4) There are a bunch of other terms that we can replace with 'grounding' and get truths. (5) We can wonder whether a particular relation is a grounding relation.

The best attempt to figure out a monistic univocal notion of grounding is Kit Fine's; but it fails, because it doesn't satisfactorily explain (2) and (4). The best attempt to make sense of a pluralistic multivocal notion of grounding is Jessica Wilson's. But her view cannot satisfactorily explain (1) and (3) and (5). In this paper, I've offered a middle way – being a monist about grounding while treating 'grounds' as multivocal. I suggested that we should think of grounding as a genus, or determinable, or a relation that's multiply realized, and that it admits of several species or determinates or realizers (which might themselves

be genera or determinables or multiply realized relations that themselves admit of species or determinates or realizers). This view explains all five of the explananda, and this is good reason to accept it.

Notes

1. One might also naturally think of the pre-Socratics as thinking about grounding; Thales didn't think everything literally *was* water, but rather than everything is grounded in water. And similarly for the other pre-Socratics.
2. I follow the convention of using brackets around a declarative sentences as a name for the fact expressed by that sentence. So '[*x*]' is a name for the fact that *x*.
3. Most notably Hofweber (2009), Oliver (1996), Daly (2012), Wilson (2014), Koslicki (2015), and the referent of the third stanza of the twenty-first Century Monads' 'I think I might be grounded in you'.
4. Thanks to Alex Skiles for suggesting this twofold classification.
5. Compare the way (Lynch 2009, 58) talks about the Simple Alethic Pluralist view of truth: 'The simplest point to make about SAP is that it isn't even a pluralist view of truth at all. It is a pluralist view of the meaning of the word "true." Compare: we don't say that there is more than one way to be a bank. We say there are different meanings to the word "bank".'
6. See Fine (2012a, 2012b, 2010)
7. Fine likely thinks that 'grounds' is thus often ambiguous between weak grounding and strict grounding (and in fact also what he calls 'partial ground' and 'full ground'), but this is not to say that 'ground' is not itself univocal. For in the phrases 'weak ground,' 'strict ground,' 'partial ground,' and 'full ground,' 'ground' means the same thing.
8. See Audi (2012), 2, Bohn (2009, Ch4), Cameron (2008, 3), Correia (2005, 60ff); Rosen (2010, 115–116), Schaffer (2008, 17), Schaffer (2009, 364, 376), Schaffer (Forthcoming, 4) and Thompson (2016). Kit Fine states in his (2010, 121), that partial grounding is at least transitive and irreflexive. Karen Bennett states in her Bennett (2011, 86), that grounding is at least irreflexive and asymmetric.
9. See Fine (2012a), Thompson (2016).
10. This is similar to one line of argument in Wilson (2014), which I'll discuss in much greater detail in §3.
11. Compare supervenience, which everyone agrees is reflexive, transitive, and non-symmetric. Or identity, which everyone agrees is reflexive, symmetric, and transitive. Or parthood, which everyone agrees is reflexive, anti-symmetric, and transitive.
12. Hofweber (2009) has also put forth a challenge, but it is amidst other challenges to metaphysics and not nearly as pointed as Wilson's; also, it has been well-met by Raven (2012). Koslicki (2015) has also put forth a challenge, and it differs in important ways from Wilson's. In the interest of space, in this paper I shall restrict myself to responding to Wilson.
13. For the rest of the paper, I'll follow Wilson by using 'Grounding' to refer to a distinctive relation of metaphysical dependence and 'grounding' when I intend to be neutral.
14. It won't do, of course, to deny that there's such a thing as Grounding but admit that there's such a thing as dependence, or a non-causal explanation relation, or what have you. On my view, 'grounding' picks out the same thing

as 'dependence,' 'non-causal explanation,' and the like, so if one admits that we need a relation like dependence in addition to parthood and realization and the like, I'll consider myself to have won.

15. This is similar to an objection in Schaffer (forthcoming-a). Schaffer wonders, if we started listing grounding relations, 'parthood, identity, and so on,' how we would know what the 'and so on' would cover. There must be something in common that lets us know what else we can add to the list and what we shouldn't add.

16. This is especially obvious if you have a view whereby some objects in the middle of the parthood chains are fundamental because of some special property they have, as in Inman (manuscript). One such person may think that bodies are fundamental and that bodies ground arms and arms ground hands, and another may agree that bodies are fundamental but think that bodies ground hands and hands ground arms – although they might agree about all the parthood facts.

17. If the reader takes this to be impossible, I suggest that it's because she's thinking that parthood is obviously a grounding relation. I suggest replacing it with identity or some other relation such that it's questionable whether that relation is a grounding relation.

18. Wilson thinks that identity is a grounding relation, and the above example would be even more persuasive using identity. But I imagine a lot of people would not think identity is a grounding relation, and simply denying that a relevant relation is a grounding relation is not an adequate response to the objection I'm trying to push.

19. Thanks to a referee for this worry.

20. This is similar to the discussion of whether the grounding facts are themselves grounded (See deRosset 2013; Fine 2012a; Rosen 2010) Even if they are, that doesn't diminish the importance of grounding – it only shows that the grounding facts aren't fundamental. In fact, everyone in this debate seems to think the grounding facts *are* grounded; the only question is in what they are grounded.

21. I have omitted the criteria that don't relate to the present discussion.

22. Rodriguez-Pereyra (2015) speaks of grounding as though it's a genus with species like truthmaking and what he calls 'alethic fact-grounding.'

23. In an earlier version of the paper, I said, 'If a relation does one or more of those things, it's a grounding relation.' A referee pointed out that this is not enough; causation and emergence explain why something has a property. And yet I can't say that a relation is a grounding relation *only if* it does *all* those things, because not all grounding relations relate the fundamental to the non-fundamental. Specifying the sufficient conditions for a relation to be a grounding relation is tricky business, and people will disagree. I hope to have given enough of a gloss to put forward the 'job description' strategy; going forward is some of the work for a theory of grounding that needs to be done.

24. This can also serve as a response to Wilson (2014)'s charge that there is no genuine metaphysical unification, and that '[p]roponents need some alternative motivation for this posit' (Wilson forthcoming, 2). The job description provides the unification and motivation. Schaffer (forthcoming-a) also tries to provide a unification and motivation; his is a formalism which he develops in Schaffer (2016).

25. See Wilson (1999). The view is also adopted by Shoemaker (2001).

26. Wilson (2014) offers several, some of which I agree with and some of which I don't. I won't revisit the ones she talks about.

27. See the cited papers for explications of these phrases.

28. See Cameron (2010) and Schaffer (2008). If grounding is the relation that answers to the 'in virtue of' locution, then this is also the view in Cameron (forthcoming).
29. I take it that this is the specific of grounding Dasgupta (forthcoming) has in mind.
30. On the latter, see Thompson (2016).
31. Perhaps metaphysical explanation?
32. Koslicki (2012) argues for this. And there may be more specifics of ontological dependence, and there might be specifics of existential and essential dependence, like asymmetric existential dependence and symmetric existential dependence.
33. On ways of truthmaking, see Barnes (manuscript) and Griffith (2015).
34. Thanks to a referee for suggesting that I address this worry.
35. Again, see Wilson (2012).
36. So, it might be that grounding's existence is partly grounded in each grounding relation, but *that parthood is a grounding relation* is partly grounded in grounding, and *that set membership is not a grounding relation* is partly grounded in grounding.
37. This, at least, Wilson will be happy to hear from a proponent of grounding.

Acknowledgements

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