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## VARIETIES

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### 1. Introduction

Philosophers often make claims like:

- (1) An act is morally right *in virtue of* the fact that it maximizes happiness.
- (2) *What it is* for  $x$  to be water is for  $x$  to be composed of  $H_2O$ .
- (3) The proposition  $p$  is true *because* the fact that  $p$  obtains.

These claims differ in two ways. *First*: they have different subject matters; (1) is about moral acts, while (2) is about natural kinds. *Second*: they use different locutions to express explanatory dependence; (1) uses “in virtue of”, while (3) uses “because.” Despite these differences, claims (1)–(3) are unified *qua* expressions of grounding dependence.

If the grounding theorist is right, (1) through (3) can be given more perspicuous formulations.

- (1)’ The fact that an act is right is *grounded* in the fact that it maximizes happiness.
- (2)’ The fact that  $x$  is water is *grounded* in the fact that  $x$  is composed of  $H_2O$ .
- (3)’ The fact that  $p$  is true is *grounded* in the fact that  $p$  obtains.

Instead of using a variety of locutions, we use a single technical term—“grounds”—that we take to express metaphysical dependence. Instead of vaguely gesturing toward some kind of dependence or other, we refer to a specific kind of dependence whose properties we characterize in detail. We have gained clarity by *lumping together* certain dependencies under the umbrella category of grounding. Could we gain further clarity by *splitting up* this umbrella category into different subcategories? The *grounding monist* says: no (Audi 2012: 688; Rosen 2010: 114; Schaffer 2009: 376–377). The *grounding pluralist* says: yes (Richardson 2018, forthcoming; Bennett 2017; Cameron 2015; Fine 2012; Griffith 2014, 2018; Litland 2013; Rettler 2017).

Pluralists think there are varieties of grounding. Claims like (1)’ through (3)’ are not fully perspicuous with respect to what grounds what. Instead of saying that  $\pi$  grounds  $\lambda$ , we should say:  $\pi$  grounds<sub>1</sub>  $\lambda$ , or  $\pi$  grounds<sub>2</sub>  $\lambda$ , etc. Each kind of grounding will have different properties, so it is important to clarify which kind we are talking about.

In this chapter, I describe the state of the art for pluralist theories of grounding. Every pluralist must answer four questions:

- Why should one be a pluralist rather than a monist? (§2)
- What are the varieties of grounding? (§3)
- What is the sense (if any) in which grounding is unified? (§4)
- What is the meaning of “grounds”? (§5)

In what follows, I give various representative pluralist answers to these questions.

Notice that I have omitted the question: what is the difference between monism and pluralism? Here is a simple answer: pluralism says there are multiple kinds of grounding; monism says there is exactly one kind of grounding. Of course, this simple answer is too simple. It overlooks the importantly different ways in which grounding can be pluralistic (or monistic); one person’s pluralism can be another person’s monism, and vice versa. I discuss these senses, but I do not structure my discussion around the conflict with monism. Rather, I focus on explicating views that have—for some reason or other—been deemed pluralist.

For ease of exposition, I make three assumptions: (i) there are grounding relations; (ii) grounding relations relate facts; (iii) grounding relations covary with metaphysical explanations; more precisely:  $\pi$  grounds  $\lambda$  if and only if  $\pi$  metaphysically explains  $\lambda$ . (See the INTRODUCTION and EXPLANATION [Chapter 8] of this handbook for explanation and justifications of these assumptions.) I will flag cases where these assumptions make a significant difference to the views discussed.

## 2. Why Should One Be a Pluralist Rather Than a Monist?

The main reason to be a pluralist, as opposed to a monist, is that pluralism gives us more fine-grained (i.e., more specific) kinds of dependence. Monism, pluralists argue, gives us an overly coarse-grained kind of dependence.

Grounding skeptics insist on this last point. Wilson (2014: 549) says:

[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 . . . 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.

Similarly, Koslicki (2015: 340) writes:

[When] presented with a grounding claim of the form, “[p] grounds [q]”, we are left in the dark with respect to many other questions which ideally should be resolved by a sufficiently fine-grained approach to relative fundamentality.

Suppose we know that the mental properties are grounded in the physical properties. Wilson and Koslicki think this information is only informative if we know *additional* facts about the explanatory relationship between the mental and physical properties.

Do physical properties *cause* mental properties? Are mental properties *composed of* physical properties? Do physical properties *realize* mental properties? These questions are all questions

about explanatory dependence, but none of these questions are resolved by the claim that the mental is grounded in the physical.

But if metaphysical grounding is supposed to clarify metaphysical dependence, how could it leave so many of these questions open? Grounding tells us that one thing metaphysically depends on another, but it tells us nothing about *how* or *why* one depends on the other. To answer those specific questions about dependence, we ought to focus on fine-grained dependence relations like causation, composition, realization, etc.

Traditionally, this line of reasoning has been thought to support skepticism about grounding *simpliciter*. The idea is that *every* conception of grounding will be one where grounding is insufficiently fine-grained. Consequently, grounding should be rejected entirely. (For more detailed presentations of this argument, see Wilson (2014), Koslicki (2015), and the SKEPTICAL DOUBTS chapter [Chapter 11] of this volume.)

There is another conclusion we might draw from these arguments, however. Instead of taking them to imply grounding skepticism, we could take them to support grounding pluralism. If the problem is that grounding is insufficiently fine-grained, we might solve the problem by positing fine-grained grounding relations. (Another possibility is to be a pluralist about *metaphysical building* relations, where grounding is one of many such relations. See Bennett (2017) for this proposal.)

Suppose that realization, composition, causation, and other dependencies are varieties of grounding. In that case, grounding claims give answers to *exactly* the kinds of questions that grounding skeptics believe ought to be answered. Moreover, grounding relations are fine-grained in the way that skeptics believe they should be.

The resulting view is not a skeptical one. I am not a skeptic if I believe (a) there are different species of animals and (b) it is usually more helpful to refer to the distinct species of animals rather than the genus *animal*. Similarly, one is not a grounding skeptic just because one believes (a) that there are different kinds of grounding and (b) that it is often more helpful to refer to the specific kinds of grounding than the umbrella category.

Can this proposal dispel every kind of grounding skepticism? Probably not. You might argue—as Wilson and Koslicki do—that the umbrella category of grounding is too heterogeneous. To answer this objection, the pluralist must give an account of what unifies the grounding relations, and such an account will vary from theory to theory.

Independently of whether pluralism converts skeptics, it does address certain worries about the fine-grainedness of grounding. We do not have to be like the poor biologist who cannot distinguish between species of animals. We can embrace the rich diversity of grounding relations. (See the ANTI-SKEPTICAL REJOINDERS chapter [Chapter 12] of this volume for this type of response.)

### 3. What Are the Varieties of Grounding?

One reason to be a pluralist is that we need more fine-grained varieties of grounding. But what are those varieties, exactly?

Imagine constructing a list of grounding relations. Which relations are on the list? How do we determine which relations get to be on the list? To answer the first question, I will start by answering the second. I outline the three most common ways to individuate—or single out—the varieties of grounding. These ways of individuating grounding relations correspond to different lists of grounding relations.

*Disclaimer.* I will ignore grounding relations that can be trivially defined. For example, you could say that  $\pi$  *cupcake-grounds*  $\nu$  if and only if (i)  $\pi$  grounds  $\nu$  and (ii)  $\pi$  and  $\nu$  are facts about

cupcakes. If cupcake-grounding is a grounding relation, it is a trivial one. It is a trivial kind of grounding in the same way that *red-headed human* is a trivial kind of human. I only survey varieties of grounding that are (in some intuitive sense) nontrivial. I assume that several distinctions between grounds—like partial/full, weak/strict, immediate/mediate, rigid/nonrigid—feature trivial kinds of grounding. (Though even if some of these kinds of grounding were nontrivial, I would not have the space to discuss them. See Makin (2017) for the distinction between rigid and nonrigid grounding. See Fine (2012) for the other distinctions.)

### 3.1. *Small-g Pluralism*

*Small-g pluralism* is the view that the grounding relations are just those relations that are of distinctive interest to metaphysicians. Metaphysicians are in the business of explaining general features of reality. The various grounding relations play a role in such explanations, and that is what makes them part of a unified class.

This account is inspired by a critic of grounding, Jessica Wilson. After criticizing the informativeness of a monistic grounding relation (or big-G Grounding, as she calls it), she proposes that metaphysicians should appeal to more familiar (and more fine-grained) kinds of dependence relations.

Wilson (2014: 539) calls these relations *small-g* grounding relations, and the set of such relations includes

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.

Wilson presents these relations for two reasons.

*First:* metaphysicians have been discussing the small-g relations for decades prior to the contemporary emphasis on metaphysical grounding. They are relations that are clearly of interest to metaphysicians. This gives evidence for—or perhaps even constitutively determines—the fact that these relations are metaphysical dependence relations.

*Second:* these more specific relations will answer the important questions about dependence that big-G grounding fails to answer. Small-g grounding, not big-G grounding, gives a more perspicuous representation of the informal dependence claims we make.

Some grounding pluralists accept the idea that many of the dependence relations that Wilson discusses are grounding relations; they reject, however, Wilson's skeptical gloss on grounding (Bennett 2017; Griffith 2014, 2018; Rettler 2017).

Instead of seeing the small-g relations as *competing with* the notion of big-G grounding, small-g pluralists see these relations as *extensions of* big-G grounding. Perhaps big-G grounding is a genus of which the small-g grounding relations are species. In that case, it would be wrong to see the small-g relations as competing with big-G grounding; that would be like seeing the species *human* as competing with the genus *animal*.

Once one accepts the general thesis, one needs a canonical list of small-g grounding relations. Below is a list of possible candidates for small-g relation-hood, along with the persons nominating them for candidacy.

- Realization (Bennett 2017; Griffith 2018)
- Mereological composition (Wilson 2014; Bennett 2017)

- Ontological dependence (Rettler 2017)
- Truthmaking (Bennett 2017; Rettler 2017; Griffith 2014)
- Reduction (Rettler 2017)
- Emergence (Bennett 2017)

This is an abridged list. The current list has the shape it does because

(a) it describes, by my lights, the most plausible instances of small-g grounding, (b) it represents the diversity of relations that metaphysicians have proposed for candidacy, and (c) it captures how much overlap exists between the lists of small-g grounding theorists.

This pluralist theory has the advantage of familiarity. The various small-g relations have already been extensively studied by philosophers, so we have some grip on the properties of small-g relations.

One big question about small-g pluralism concerns what (if anything) unifies the class of small-g grounding relations. My definition of small-g pluralism tells us that the small-g relations are united in virtue of being the relations that metaphysicians are interested in, but you may ask, “Why are metaphysicians interested in *those* relations?” From this perspective, the list of relations may seem arbitrary. The apparent disunity of small-g relations is not a problem for Wilson, who is a skeptic of grounding, but it may be a problem for small-g pluralists. (See Berker (2017) for an extensive critique of small-g pluralism.) The small-g pluralist has to explain away or justify the apparent disunity of the class of small-g grounding relations.

### 3.2. Subject Matter Pluralism

*Subject matter pluralism* is the view that the varieties of grounding are individuated by the varieties of subject matters involved. To explain this idea, it is best to start with an analogous idea concerning modality.

Philosophers and linguists note that modality has different “flavors”. Consider the following sentences.

- (4) Humans cannot fly.
- (5) Red balls must be colored.
- (6) Everyone must be treated with respect.

In each case, something is said about what must or must not be the case. However, the flavor of “must” varies.

For example, (4) is naturally necessary; it is necessary given the laws of nature of this world. Nonetheless, we can imagine a possible world where the laws of nature are different, where in that world, humans *can* fly. So (4) is naturally necessary but not metaphysically necessary. (5) is metaphysically necessary; red is a color, so every red object is a colored object. Finally, (6) is a normative necessity. From an ethical perspective, everyone must be treated with respect. But as an empirical fact, some people are not treated with respect. (6) is neither naturally nor metaphysically necessary.

Different flavors of modality correspond to different kinds of subject matters. Natural modality concerns natural (or physical) subject matters, normative modality concerns normative subject matters, and so on. These different kinds of modality have different properties.

You might think something similar holds in the case of grounding. Specifically, Fine (2012) thinks there are three basic kinds of grounding—metaphysical, natural, and normative—where those kinds of grounding correspond to parallel kinds of modality. (For more on normative grounding, see the *NORMATIVITY* chapter [Chapter 34] of this handbook.)

Consider the following.

- (7) The fact that Gwen's act is right is grounded in the fact that Gwen kept her promise.
- (8) The mental facts are grounded in the physical facts.
- (9) The fact that  $x$  is an individual is grounded in the fact that  $x$  is a bundle of properties.

On Fine's view, each statement of ground (7) through (9) might be thought to be associated with a distinctive modal statement.

- (10) It is *normatively* necessary that: if Gwen's act fulfills a promise, then Gwen's act is right.
- (11) It is *naturally* necessary that: if certain physical facts obtain, then certain mental facts obtain.
- (12) It is *metaphysically* necessary that: if  $x$  is a bundle of properties, then  $x$  is an individual object.

Fine conceives of the different kinds of grounding as differing in strength, where "statements of metaphysical ground are the strictest form of in-virtue-of claim" (2012: 38).

Fine thinks there are only three kinds of grounding, but you might think there are more. Alternatively, you may think there are different kinds.

For example, sometimes people speak of *conceptual* (or *representational*) grounding. Conceptual grounding concerns grounding between concepts or representations as opposed to nonrepresentational objects, properties, or facts.

There are apparent cases of conceptual grounding without metaphysical grounding. Read  $\langle p \rangle$  as: the proposition that  $p$ .

- (13)  $\langle p \rangle$  grounds  $\langle p \wedge p \rangle$ .

(13) tells us that a proposition  $p$  grounds a conjunction with itself. This seems true in some sense. Conceptually, there may be an explanatory asymmetry between  $\langle p \rangle$  and  $\langle p \wedge p \rangle$ . However, as far as the world is concerned,  $\langle p \rangle$  and  $\langle p \wedge p \rangle$  are identical; they represent the same states of affairs, after all. So there is no nonconceptual grounding relation between them (assuming that grounding is irreflexive).

There might also be cases of metaphysical grounding without conceptual grounding. As Chalmers (2012: 453) points out: "a claim about a table might be metaphysically grounded by microphysical truths about charge, spin, and the like, but it is not plausibly conceptually grounded in those truths." The concept *table* does not have all of the relevant truths about the microphysical structures of tables packed into it. If it did, we could do physics from the armchair.

Or so one might argue. Unsurprisingly, philosophers disagree about the exact properties of conceptual grounding and its relation to worldly grounding. For more discussion, see Correia and Skiles (2019), Smithson (forthcoming), and the GRANULARITY chapter [Chapter 15] of this handbook.

If conceptual grounding is another variety of grounding, it may have an associated form of necessity: conceptual necessity.

- (14) Tables are composed of atoms arranged table-wise.
- (15) Bachelors are unmarried males.
  - a. It is conceptually necessary that: if  $x$  is a bachelor,  $x$  is an unmarried male.

(14) is metaphysically necessary but not conceptually necessary. (15) is metaphysically *and* conceptually necessary, where the relevant conceptual necessity is (15-a).

There may be further kinds of grounding. Epistemic grounding, social grounding, mathematical grounding—for each ontological category, there might be a kind of grounding associated with it.

Another possibility is that the Finean idea—that the varieties of grounding are associated with varieties of necessity—is false even though subject matter pluralism is true. For example, normative grounding might have a special normative force, but this force may not correspond to a distinctive kind of necessity. In general, you might accept grounding pluralism without accepting modal pluralism.

### 3.3. Explanation-Theoretic Pluralism

*Explanation-theoretic pluralism* is the view that the varieties of grounding are individuated by the varieties of metaphysical (or grounding) explanation. To explain this view, I will briefly describe a problem that it has been thought to resolve.

Consider the following principle.

TRANSITIVITY: If  $\phi$  partially grounds  $\psi$ , and  $\psi$  partially grounds  $\chi$ , then  $\phi$  partially grounds  $\chi$ .

Grounding theorists debate about whether this principle holds. The friends of nontransitivity offer putative counterexamples to TRANSITIVITY. Those who accept TRANSITIVITY try to explain away those examples. (For more details, see the STRICT PARTIAL ORDER chapter [Chapter 17] of this handbook.)

For example, Schaffer (2012) asks us to imagine a sphere  $O$  with a maximally determinate shape  $S$ , where  $O$  has a small dent  $D$  in it. Then the following grounding claims seem plausible. (Read  $[q] < [p]$  as: the fact that  $p$  partially grounds the fact that  $q$ .)

DENT-TO-SHAPE:  $[O \text{ has shape } S] < [O \text{ has dent } D]$

SHAPE-TO-SPHERE:  $[O \text{ is nearly spherical}] < [O \text{ has shape } S]$

DENT-TO-SHAPE is plausible because the dent in the sphere is partially responsible for its shape. SHAPE-TO-SPHERE is plausible because the shape of  $O$  contributes to its being nearly spherical. But if TRANSITIVITY holds, then so does the following.

DENT-TO-SPHERE:  $[O \text{ is nearly spherical}] < [O \text{ has dent } D]$

Intuitively, DENT-TO-SPHERE is implausible. The near-sphericity of  $O$  doesn't need the dent; even stronger: the near-sphericity of  $O$  exists *in spite* of the dent, not because of it. The dent doesn't make a metaphysical contribution to the near-sphericity of  $O$ .

So it seems that DENT-TO-SHAPE and SHAPE-TO-SPHERE are true, but DENT-TO-SPHERE is false. If this is so, we have a counterexample to TRANSITIVITY.

The friends of transitivity are not convinced. They think the dent does make a contribution to the near-sphericity of  $O$ . The dent tells us the *way in which*  $O$  is nearly spherical. The near-sphericity of  $O$  is surely grounded in the way  $O$  is nearly spherical.

This is where the debate begins. The standard approach in the literature is to pick a camp—either you think grounding is transitive or nontransitive—and then argue about what these kinds of examples show. The presupposition of the debate is that there is a single kind of grounding being discussed and that this kind of grounding will be either transitive or nontransitive.

But what if this presupposition is false? What if there are multiple grounding relations at issue here? In that case, it is possible that one kind of grounding is transitive while another kind is nontransitive. This proposal does not neatly fit into the standard ways of thinking of grounding—as either uniformly transitive or uniformly nontransitive. Rather, it constitutes (what I call) a Third Way position.

Litland (2013) and Richardson (2018) defend a Third Way position. They argue that there are different kinds of grounding corresponding to different kinds of metaphysical explanation. And depending on what kind of metaphysical explanation we have in mind, we should think grounding is either transitive or nontransitive.

Grounding is nontransitive if we think grounding corresponds to why-explanation. The fact that  $O$  has a dent doesn't explain *why*  $O$  is nearly spherical. Call this kind of grounding *why-grounding* ( $\prec_{why}$ ).

Nonetheless, the dent does tell us *how* (or the way in which)  $O$  is nearly spherical. The object is nearly spherical, in part, by having a certain dent. Grounding is transitive, then, if we think grounding corresponds to how-explanation. Call this kind of grounding *how-grounding* ( $\prec_{how}$ ).

The revised account of the examples may look like this. (Read  $[q]$

$\prec_{why+how} [p]$  as:  $[q] \prec_{why} [p]$  and  $[q] \prec_{how} [p]$ .)

DENT-TO-SHAPE <sub>$w+h$</sub> :  $[O \text{ has shape } S] \prec_{why+how} [O \text{ has dent } D]$

SHAPE-TO-SPHERE <sub>$w+h$</sub> :  $[O \text{ is nearly-spherical}] \prec_{why+how} [O \text{ has shape } S]$

DENT-TO-SPHERE <sub>$h$</sub> :  $[O \text{ is nearly-spherical}] \prec_{how} [O \text{ has dent } D]$

This proposal preserves the transitivity of how-grounding but not the transitivity of why-grounding. The moral of the story is that the putative counterexamples to TRANSITIVITY reveal the existence of two kinds of grounding. Once we distinguish between these kinds, we can dissolve the traditional debate about whether grounding is transitive.

Litland (2013) proposes how- and why-grounding mainly as a way to make sense of the debate about the transitivity of grounding. Richardson (2018) gives a more detailed account of the two kinds of grounding and argues explicitly for grounding pluralism.

In both cases, the view sketched is an *explanation-theoretic* pluralist theory, a theory where the kinds of grounding are individuated by the kinds of metaphysical (or grounding) explanation. The focus on explanation stems from a more general view about the relationship between grounding and explanation.

In general, we motivate the existence of grounding by appealing to its explanatory character. Metaphysical explanation is seen as a guide to grounding and vice versa. As an extension of this strategy, we might motivate the existence of multiple kinds of grounding by appealing to the multiple kinds of metaphysical explanation it provides. (See the EXPLANATION chapter [Chapter 8] for more considerations on grounding explanation.)

Here, I have identified how-explanation and why-explanation as two possible kinds of metaphysical explanation, but there may be other kinds of explanation. Richardson (forthcoming) argues that there is a kind of grounding corresponding to “what-it-is” explanations.

For example, sometimes metaphysical explanations come in the form of specifying *what it is* for things to be case. What is it for something to be water? For it to be  $H_2O$ . What is it for someone to be a bachelor? For someone to be married. This kind of what-it-is explanation has been studied under various names—real definition, the just-is relation, generic identity—but it may turn out to be a kind of grounding explanation (Correia 2017; Dorr 2016, 2005; Linnebo 2014; Rayo 2013; Rosen 2015; Correia and Skiles 2019). Given the explanation-theoretic view,



it follows that metaphysical what-it-is explanation corresponds to a form of grounding. Richardson (forthcoming) calls this variety of grounding *what-grounding*.

Another possible kind of explanation is *difference-making* explanation. The intuitive idea behind the dented sphere example is that the dent does not make a positive difference to the near-sphericity of *O*; worse: it makes a negative difference. Krämer and Roski (2017) give a precise formulation of difference-making using a set of counterfactuals. They then argue that good grounding explanations involve (what they call) difference-making grounds. Richardson (forthcoming) identifies difference-making grounding with why-grounding.

Explanation-theoretic pluralism is especially attractive to *unionists*, who identify grounding with metaphysical explanation (Dasgupta 2017; Litland 2013; Miller and Norton 2017; Richardson 2018, forthcoming; Thompson 2016, 2018). If grounding *just is* metaphysical explanation, then it follows that the varieties of metaphysical explanation are varieties of grounding.

For *separatists*, who reject a tight link between grounding and metaphysical explanation, explanation-theoretic pluralism is especially *unattractive* (Audi 2012; Maurin 2018; Schaffer 2012, 2016; Trogdon 2013). One might agree that there are different kinds of metaphysical explanation without thinking there are different kinds of grounding. (See Krämer and Roski (2017) and Schaffer (2012) for views like this.)

#### 4. What Is the Sense (If Any) in Which Grounding Is Unified?

When considering varieties of grounding, we often encounter two different questions about the unity of grounding.

The first question is: what do the varieties of grounding have in common? This question can only be answered by appealing to what those varieties are, exactly. For example, if the small-g pluralist is correct, then the varieties of grounding have the common feature of being of interest to metaphysicians. This answer may or may not be satisfactory, but it counts as a possible answer to this unity question.

Another question is: in what sense (if any) is grounding unified? This is not a question about what the different kinds of grounding have in common. Rather, it is a question about the kind of unification involved; it is a question about how the umbrella notion of grounding—call it *generic grounding*—relates to the notions that fall under it.

There are several options here.

- **NOMINALISM:** There are multiple basic grounding relations that merely resemble one another.
- **FUNCTIONALISM:** To be a grounding relation is to play a certain functional role. Or: grounding is a functional kind.
- **DEFINITION-THEORETIC:** There is a fundamental grounding relation that defines each nonfundamental grounding relation. Or the varieties of grounding define the generic kind of grounding.
- **DETERMINABLE-DETERMINATE:** Grounding is a determinable that has specific ways of grounding as determinates.
- **GENUS-SPECIES:** Grounding is a genus of which its varieties are species.

I will discuss the first three options, since they are the most commonly discussed.

##### 4.1. Nominalism

Grounding pluralism is often associated with the idea that grounding is *disunified*. The most obvious sense in which grounding could be disunified is if there were no generic grounding

relation; rather, there are only multiple, equally basic varieties of grounding relations. I call this view *nominalism*.

For example, a nominalist must say there is why-grounding and how-grounding but no such thing as grounding *simpliciter*. There is no generic grounding relation. Each grounding relation is equally basic, and there is no common kind of grounding—generic grounding—that they fall under. (For the view that there is a generic kind of grounding defined by specific kinds of grounding, see §4.3.)

Nominalism abandons the project of unifying the varieties of grounding, and you might think this is a positive consequence of the view. Suppose you are a small-g pluralist who thinks grounding is more disunified than not. Instead of trying to unify the small-g relations, you might be better off defending their disunity. On this view, the grounding relations seem disunified because they are.

One possible problem with nominalism is that it makes it difficult to distinguish between the nominalist and the skeptic. The skeptic says, “There is no relation of grounding, only a bunch of different relations that vaguely resemble one another”. But this seems to be exactly what the nominalist thinks! So either (a) purported skeptics are actually pluralists or (b) purported pluralists are actually skeptics. Either conclusion will be surprising.

Another view—closely related to nominalism—is that generic grounding exists but it is defined in terms of the specific kinds of grounding. So generic grounding might exist but how- and why-grounding are more fundamental; generic grounding is derivative upon how- and why-grounding. I discuss this kind of view in §4.3.

Nominalism is not a view widely held (if at all) by grounding pluralists, but it is certainly a view casually attributed to pluralists. Pluralism is often thought to imply disunity of some sort, and nominalism clearly captures the idea that grounding is disunified.

## 4.2. Functionalism

*Functionalism* is the view that grounding relations are unified by the *functional role* of grounding, where a functional role is akin to a job description. To understand the general idea of functionalism, let us first consider more familiar functionalist accounts.

What are bridges? They are made of different materials and they often take very different forms. Nonetheless, bridges have their functional role in common. Bridges are walkable, they surmount obstacles, they help you get from one location to another, etc. *Bridge* is a functional kind. Bridges are realizers of the functional property of being a bridge.

In philosophy, functionalism is most common in the philosophy of mind. To give an account of mental states, you might define mental states via the role they play. For example, a mental state *P* is a pain state just in case being in *P* tends to cause its experiencer to think something is wrong with their body. Pain is defined by the pain-role. Pain states are *realizers* of the pain-role.

In both cases, we specify constraints that tell us when something counts as an instance of the relevant kind. For grounding functionalism, we need to specify the grounding role. Rettler (2017: 13–14) writes:

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 some thing has a property.

For Rettler, the relations that satisfy this functional role include ontological dependence, truth-making, reductive analysis, and metaphysical explanation. There are doubtless more grounding relations that satisfy this functional role.

Different pluralists may disagree about the functional role of grounding. In any case, functionalism tells us that grounding is unified in the sense that the grounding relations realize a common functional role. Grounding—or the property of being a grounding relation—is the functional kind, while the realizers of this kind are grounding relations.

This view provides a particularly natural way of making sense of small-g pluralism. Big-G Grounding is the kind; small-g grounding relations are the realizers. To respond to the objections of disunity, then, the small-g pluralist may only need to specify a functional definition of grounding. This is still a challenging task, but it is a more manageable one, given functionalist resources.

If one thinks there are no grounding relations, functionalism might be better formulated in terms of concepts. The general concept of grounding would be a functional concept. This concept either (a) refers to relations that realize the concept—but are not, strictly speaking, grounding relations—or (b) the concept is realized by different concepts of grounding. The details are tricky, but the point is that functionalism can accommodate different ways of conceiving of grounding.

### 4.3. Definition-Theoretic

On the *definition-theoretic approach*, we unify grounding relations by either (a) defining the grounding relations in terms of generic grounding or (b) defining generic grounding in terms of the varieties of grounding.

What is a *definition*? A definition could be some kind of grounding relation, although this would immediately raise questions about the grounding of grounding. For the sake of simplicity, I will assume that definitions correspond to other notions of metaphysical analysis (like reduction, perhaps). We just need some notion of defining one thing in terms of another.

Given a notion of definition, we are now in position to consider the first possibility—that the various grounding relations can be nontrivially defined in terms of a single grounding relation. To make this proposal concrete, let us consider a version of subject-matter pluralism. On the Finean view, there are three kinds of grounding: natural, normative, and metaphysical.

Suppose we think there is a generic grounding relation. How do we define the specific groundings relations in terms of generic grounding? Here is one proposal.

$\phi$  metaphysically grounds  $\psi$  just in case (a)  $\phi$  generically grounds  $\psi$  and (b) it's metaphysically necessary that: if  $\phi$ , then  $\psi$ .

To define the other varieties of grounding, we simply substitute in the various types of grounding and necessity. Call this the *top-down* approach to unifying grounding; we use generic grounding to define its varieties.

Fine (2012: 39) briefly considers and rejects this proposal. He proposes a counterexample. Consider the following facts.

(16) A specific act  $x$  maximizes happiness.

(17)  $x$  is right.

(18)  $x$  is either right or not right.

Fact (18) is generically grounded in (17), which you may think is normatively grounded in (16). Given the transitivity of generic grounding, (18) is generically grounded in (16). Notice that it's metaphysically necessary that: if (16), then (18). (Why? Because (18) is itself metaphysically necessary.) Given the presence of generic grounding and metaphysical necessity, it follows from our reductive definition that (16) metaphysically grounds (18). However, you might not think this is a genuine case of metaphysical grounding.

The intuition is that the varieties of grounding are distinguished by more than the presence of different kinds of necessity. Rather, there is something different about the flavor or force of grounding itself that changes. One way to accommodate this sense is to build it into the definition of metaphysical grounding. For example:

$\phi$  metaphysically grounds  $\psi$  just in case  $\phi$  generically grounds  $\psi$  with metaphysical force.

In this case, you have a definition of metaphysical grounding parting in terms of generic grounding, but the definition is less trivial than the previous one. The notion of *metaphysical force* may be primitive, and even if it is not, it will require substantive theorizing to unpack it.

So far, I have considered definitions of the kinds of grounding in terms of generic grounding. An alternative definition-theoretic approach would be to define generic grounding in terms of its kinds.

Consider the following definition.

What it is for  $\phi$  to generically ground  $\psi$  is for either  $\phi$  to normatively ground  $\psi$ ,  $\phi$  to naturally ground  $\psi$ , or  $\phi$  to metaphysically ground  $\psi$ .

On this view, the varieties of grounding are fundamental. Generic grounding is derived from its varieties. This view is attractive if you think there can be no definition of the varieties of grounding, yet you still want to speak of a generic notion. Call it the *bottom-up* approach to unifying grounding; we are defining generic grounding in terms of its varieties.

Berker (2017) argues that the bottom-up approach to defining grounding cannot succeed. Suppose metaphysical and normative grounding are both transitive. (Assume these claims are of partial ground.)

TRANSITIVITY<sub>M+N</sub>: If  $\phi$  metaphysically/normatively grounds  $\psi$ , and  $\psi$  metaphysically/normatively grounds  $\chi$ , then  $\phi$  metaphysically/normatively grounds  $\chi$ .

It is plausible that mixed versions of transitivity hold, linking metaphysical and normative grounding. For example:

TRANSITIVITY<sub>N→M</sub>: If  $\phi$  normatively grounds  $\psi$ , and  $\psi$  metaphysically grounds  $\chi$ , then  $\phi$  (in some nontrivial sense) grounds  $\chi$ .

But if the varieties of grounding are fundamentally distinct, why does TRANSITIVITY<sub>N→M</sub> (and other mixed logical principles) hold? This result is too much of a miracle. The best explanation of these principles is that there is a single generic grounding relation by which the other grounding relations are defined. Or so the argument goes. (See Litland (2018) for a pluralist response to Berker (2017).)

## 5. What Is the Meaning of “Grounds”?

If there is only one kind of grounding, the meaning of “grounds” is straightforward. “Grounds” means grounds. If there are multiple grounding relations, it is unclear what to say about the contents of our grounding claims. While the semantics of “grounds” does not matter to the varieties of grounding themselves, it does matter to grounding theorists who want to be clear about their claims. I cannot give a comprehensive survey of the various semantic options for pluralists, but I will correct a common confusion about the semantic consequences of grounding pluralism.

Sometimes people suggest that pluralism implies that grounding-talk is *ambiguous*. The paradigm of semantic ambiguity is the word “bank.” The word refers to rivers and financial institutions. The word has at least two meanings, and those meanings are unrelated to one another. So if grounding-talk is ambiguous, the word “grounds” refers to disparate relations. This view is sometimes expressed as the idea that “grounds” is not univocal (i.e., it is equivocal). (See Trogon (2013), Correia and Schnieder (2012: 30), and Tahko (2013).)

The ambiguity model will not work for most grounding pluralists, however. This is because most grounding pluralists think the different utterances of “grounds” have something in common—namely, grounding. Again, if grounding is unified and grounding-talk refers to multiple kinds of grounding, this cannot be a case of ambiguity.

Ambiguity is sometimes mistaken for context sensitivity. Consider modal language. “Must” can have a metaphysical or ethical import, depending on the context. The context sensitivity of modal language pairs well with modal pluralism. Similarly, the context sensitivity of grounding-talk pairs well with grounding pluralism. Suppose someone says (19).

- (19) The physical facts ground the mental facts.
- (a) The physical facts naturally ground the mental facts.
  - (b) The physical facts metaphysically ground the mental facts.

Depending on the context, the meaning of (19) will be either (19-a) or (19-b). Let *contextualism* be the view that grounding-talk is context-sensitive in this way. (See Cameron (2015) for an Aristotelian contextualist theory.)

So grounding pluralists are not forced into thinking grounding-talk is ambiguous; they could be contextualists about grounding-talk. More generally, pluralists are not forced into *any* particular semantic theory. You could think that grounding-talk isn’t context-sensitive; rather, it either (a) refers to a generic notion of grounding, or (b) quantifies over the behavior of some (or all) grounding relations. There are subtle versions of each of these semantic theories.

Ultimately, “grounds” is a relatively new technical term, and it is unclear how to evaluate the semantics of such terms. Instead of determining how we *actually* use the term, it may be more useful to determine how we *ought* to use the term. The important semantic project may be more prescriptive than descriptive.

## 6. Conclusion

I have surveyed the current state of grounding pluralism. My discussion has centered around four questions about grounding pluralism, but there are other important questions about pluralism.

What are the logical relations between the various grounding relations? Are there specific applications of grounding pluralism to first-order metaphysical debates? If grounding relations do not covary with grounding explanations, what might grounding pluralism look like? Are there other viable semantic theories for pluralism?

I leave these questions for future research. The purpose of the current chapter has been to survey the varieties of grounding. The hope is that knowledge of these varieties will sharpen our debates about what grounds what. As Fine (2002: 281) puts it:

Philosophers like to think of themselves as having found the key to the universe. But where there are many locks, it should be recognized that we may have need of many keys.

## Related Topics

- Explanation [Chapter 8]
- Skeptical Doubts [Chapter 11]
- Granularity [Chapter 15]
- Strict Partial Order [Chapter 17]
- Normativity [Chapter 34]

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