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# Grounding is necessary and contingent

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#### **ABSTRACT**

Grounding is necessary just in case: if P grounds Q, then necessarily: if P, then Q. Many accept this principle. Others propose counterexamples. Instead of straightforwardly arguing for, or against, necessity, I explain the sense in which grounding is necessary and contingent. I argue that there are two kinds of grounding: what-grounding (which tells us what it is for things to be the case) and why-grounding (which tells us why things are the case), where the former kind is necessary while the latter is contingent.

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#### 1. Introduction

Most of the friends of grounding believe that grounding is necessary, in the following sense.

If  $\varphi_1, \varphi_2, \dots, \varphi_n$  collectively fully grounding  $\psi$ , then necessarily: if  $\varphi_1, \varphi_2, \dots, \varphi_n$ , then  $\psi$ .

Call this principle *necessity*. Call those who endorse this principle *necessitarians* (Rosen 2010; Audi 2012; Fine 2012; deRosset 2013; Trogdon 2013a).

Necessitarianism is compelling because it is the consequence of two natural views about grounding: (i) if grounds fully explain groundeds, then grounds necessitate groundeds; (ii) there is an essence-grounding link that ensures the necessity of grounding.

Despite the necessitarian orthodoxy, some philosophers have offered putative counterexamples to necessity. Call these philosophers *contingentists* (Dancy 2004; Schnieder 2006; Leuenberger 2014; Skiles 2015). To

make their case, contingentists point to the forcefulness of their apparent counterexamples.

In this paper, I argue that grounding is necessary and contingent. Less provocatively: I propose a pluralist theory of grounding in which one kind of grounding is necessary while another kind is contingent. I posit two kinds of grounding: what-grounding (which tells us what it is for things to be the case) and why-grounding (which tells us why things are the case). What-grounding is necessary. It corresponds to the idea of grounding as real definition. Why-grounding is contingent. It corresponds to the idea of grounding as metaphysical difference-making.

My view has two major upshots. First: the necessitarian/contingentist debate is founded on a false presupposition – that there is a single kind of grounding. Second: we can account for most necessitarian and contingentist intuitions without taking an exclusive stance on either side.

To make my argument, I will start by describing putative counterexamples to necessity (§2) and necessitarian responses to them (§3). Then will I motivate the pluralist hypothesis (§4), describe my pluralist theory (§5–6), and revisit the necessitarian/contingentist debate in light of pluralism (§7).

## 2. Counterexamples to necessity

Here is my official formulation of necessity.

NECESSITY: 
$$(\psi < \varphi_1, \varphi_2, \ldots, \varphi_n) \rightarrow \Box (\varphi_1 \land \varphi_2 \land \ldots \land \varphi_n \rightarrow \psi)$$
.

The antecedent says that some facts  $(\varphi_1, \varphi_2, \dots, \varphi_n)$  collectively fully ground (<) another fact  $(\psi)$ . The consequent says that it's metaphysically necessary ( $\square$ ) that: if the  $\phi$ -facts obtain, so does  $\psi$ . Overall, Necessity says that the  $\phi$ -facts necessitate  $\psi$  if they fully ground  $\psi$ , where  $\phi$  necessitates  $\psi$  just in case  $\Box(\phi \rightarrow \psi)$ .

In this paper, I make four assumptions: (i) grounding is a many-one relation between facts; (ii) facts obtain at all the possible worlds where they exist; (iii) facts are structured complexes of objects and properties; (iv) unless otherwise noted, grounding is full grounding. The first three assumptions are present in most formulations of Necessity. The fourth assumption facilitates brevity of prose.

<sup>&</sup>lt;sup>1</sup>My formulation mirrors that of Trogdon (2013a, 466) and Rosen (2010). However, Leuenberger (2014, 155) and Skiles (2015, 718) explicitly formulate the necessity of grounding as:  $\Box$ [ $(\psi < \varphi_1, \varphi_2, \ldots, \varphi_n) \rightarrow \Box(\varphi_1 \land \varphi_2 \land \ldots \land \varphi_n \rightarrow \psi)$ ]. The latter formulation wraps a modal operator around the material conditional; the former does not. I think this is a difference in presentation rather than a difference in principle. It is implicit that NECESSITY is metaphysically necessary.

We now have a precise principle. The necessitarian thinks this principle holds. The contingentist thinks it doesn't. The natural way to motivate contingentism is by providing compelling counterexamples to NECESSITY (Rosen 2010, 118; Trogdon 2013a, 466; Leuenberger 2014, 155; Skiles 2015, 718). There are many such examples, but I will focus on the ones that I find most persuasive.

Suppose physicalism is true, where physicalism is the view that every mental fact is grounded in some collection (or plurality) of physical facts. Now consider a specific mental fact about my phenomenal experience.

Red: I am having an experience of a red object

Let Phys be the physical facts that ground Red. Phys might consist in facts about light, my environment, and my perceptual faculties. If NECESSITY holds, then the following should also hold.

 $\square$ (Phys  $\rightarrow$  Red)

Leuenberger (2014) presents a compelling case where physicalism is true (and as a consequence, it's true that Phys grounds Red), but Phys doesn't entail Red.

Leuenberger (2014, 160) describes the scenario as follows:

In the actual world, God had put all the physical facts in place by the end of day seven. This was enough to make it the case that Red obtains. God henceforth left the world alone. In world  $w_{br}$  God on day eight ensured that in the region occupied by my brain, a non-physical fundamental property, to be called 'chromaplasm', is instantiated. Chromaplasm makes visual phenomenology disappear. In  $w_{b_1}$  I do not have a red experience, i.e. Red does not hold. The presence of chromaplasm is a blocker of Red in  $w_b$ .

There are two possible worlds: the actual world  $(w_{\omega})$  and another possible world  $(w_b)$ . Both worlds contain *Phys*. The difference is that  $w_{\omega}$  contains no fundamental non-physical facts, while  $w_h$  contains one fundamental nonphysical fact: namely, a fact about chromaplasm. Crucially, the presence of chromaplasm prevents Red from obtaining in wb.

This scenario is conceivable. Given that it's conceivable, we have prima facie reason to think it's possible. And if it's possible, then Necessity doesn't hold. This is because Phys grounds Red, in w<sub>@</sub>, but Phys obtains and Red doesn't, in  $w_h$ .

The intuition that Leuenberger is trying to pump is that 'What God could have done after day seven ought not to bear on the question whether our world – where, by hypothesis, He stopped after day seven – is physicalistic'



(Leuenberger 2014, 160–161). Why should what happens in  $w_{\scriptscriptstyle @}$  (with respect to what grounds what) necessarily determine what happens in  $w_b$ ? It shouldn't.<sup>2</sup>

There are other putative counterexamples to Necessity, but they have a similar structure. For example, Skiles (2015) asks us to imagine that it's actually true that all the swans in Switzerland are white. Intuitively, this fact is collectively grounded in all the actual facts of the form 'x is a white Swiss swan'. We can imagine a possible world that contains (a) all the Swiss swans that actually exist and (b) a few black swans someone has smuggled into Switzerland. If this is a genuine possibility, however, Necessity cannot be true.

## 3. In defense of necessity

What can the necessitarian say in response to these potential counterexamples to Necessity? Lots of things. I will describe the two most common arguments for Necessity and argue that they are both inconclusive.

#### 3.1. Complete explanation

The first argument for NECESSITY is as follows: full grounds completely explain what they ground, and if this is true, then NECESSITY is true. This is the complete explanation response (deRosset 2010; Trogdon 2013a).

Many grounding theorists endorse the following principle.

EXPLANATION: If  $\varphi_1, \varphi_2, \ldots, \varphi_n$  fully ground  $\psi$ , then  $\varphi_1, \varphi_2, \ldots, \varphi_n$  completely explain  $\psi$ .

Metaphysical grounding is thought to produce a particularly tight explanatory connection between grounds and grounded. Fine (2012, 39) writes:

[If] we were to claim that the particle is accelerating in virtue of increasing its velocity over time (which is presumably a statement of metaphysical ground), then we have the sense that there is - and could be - no stricter account of that in virtue of which the explanandum holds. We have as strict an account of the explanandum as we might hope to have.

Another way of putting it: there cannot be an explanatory gap between full metaphysical grounds and what is grounded. Either way we phrase it, it sounds like a commitment to EXPLANATION.

<sup>&</sup>lt;sup>2</sup>If you think physicalism is incompatible with the existence of blockers, you may interpret this scenario as a counterexample to physicalism, not a counterexample to NECESSITY. For the case against this view, see Leuenberger (2008; 2014, 157-161).

There may be disagreement about how, precisely, to characterize explanation, but explanation must be *objective* in the sense that: if  $\varphi$  explains  $\psi$ ,  $\varphi$  could explain  $\psi$  even if we didn't exist (unless  $\varphi$  and  $\psi$  are about us). Explanation, in this sense, isn't metaphysically tied to our actual, nonideal explanatory practices.

Given Explanation, one could explain why the physicalism case isn't a genuine counterexample to Necessity. Red is supposed to be fully explained by Phys at  $w_{\omega}$ . But you might think the full explanation of Red should include the fact that there are no blockers at  $w_{\omega}$ . An anti-blocking clause doesn't give a positive explanation of Red, but it does appear to be part of the full explanation of why Red obtains. This additional ground rescues Necessity.

The proposed full ground does not provide a complete explanation of what is grounded, and since EXPLANATION is true, we must conclude that the counterexample isn't genuine because they do not provide complete explanations. This response generalizes to other putative counterexamples to Necessity.

The weak point of this argument concerns the nature of complete explanations. Some complete explanations don't necessitate. Complete causal explanations, for instance, aren't always metaphysically necessary; full causes might not necessitate their effects.<sup>3</sup> Why should complete grounding explanations be any different?

One might look to Fine for guidance here. He says that statements of metaphysical grounding are metaphysical explanations, and that a complete metaphysical explanation of some fact is the strictest account of in virtue of what that fact could hold. So the real question is: why must complete metaphysical explanations necessitate? And the answer is: because they constitute the strictest explanation of their explanandum.

The problem with this line of reasoning is that it is unclear what 'the strictest explanation of X' is supposed to mean, exactly. It can't mean: the explanation that necessitates X. That would be circular. It also can't mean: the complete metaphysical explanation of X. That wouldn't answer the question of why complete metaphysical explanations necessitate. Finally, this line of reasoning only pushes the question back. Why should we believe that the strictest explanation of a thing necessitates that thing's existence?

Possible answer: because there is no explanatory gap between the strictest explanation of a thing and what it explains. But this only

<sup>&</sup>lt;sup>3</sup>Skiles (2015, 742) makes this point.

pushes the guestion back, once again. Why should we think that the fact that there is no explanatory gap between explanans and explanandum entail that the explanans necessitate the explanandum? You cannot say that 'no explanatory gap between X and Y' just means X necessitates Y, because then the explanation of Necessity is circular. But if you do not say that, it is unclear what can be said. For similar reasons, we cannot simply assume that: if the explanans necessitate the explanandum, there is no explanatory gap between explanans and explanandum.

Here is the moral of this discussion: the appeal to complete explanation is not clear enough to adjudicate the necessitarian/contingentist debate. Of course, the necessitarian will insist that this line of reasoning is perfectly clear. But my point is that appealing purely to intuitions results in a stalemate between necessitarians and contingentists. After all, contingentists think it is intuitive that complete explanations don't necessitate.

This is not to say that no theory of complete explanation could do the job. My point is that if complete explanation is to do heavy-duty metaphysical work - like secure Necessity - then we need a more robust account of complete explanation. We don't have such an account, at the moment. For this reason, we should turn to other defenses of Necessity.

#### 3.2. Essentialism

The second argument for NECESSITY is as follows: there is an essencegrounding link that entails NECESSITY. This is the essentialist response (Trogdon 2013a).

Some grounding theorists think there is a systematic connection between grounding and essence (Fine 2012, 2015; Correia 2013; Trogdon 2013a; Dasgupta 2014). Fine (2012, 74) proposes a connection of this sort, writing:

Given that the fact F is grounded in the facts  $G_1, G_2, \ldots$ , then it lies in the nature of the fact F (or of the items that it involves) that it should be so grounded given that the facts  $G_1$ ,  $G_2$ , ... do indeed obtain.

Here is my official formulation of this grounding-essence link.

Essence: 
$$(\psi < \varphi_1, \ \varphi_2, \dots, \ \varphi_n) \rightarrow \square_{\psi}((\varphi_1, \ \varphi_2, \dots, \ \varphi_n) \rightarrow (\psi < \varphi_1, \ \varphi_2, \dots, \ \varphi_n))$$

Informally put: if  $\psi$  is grounded in the  $\varphi$ -facts, it lies in that nature of  $\psi$  ( $\square_{\psi}$ ) that: if the  $\varphi$ -facts hold, then  $\psi$  is grounded in the  $\varphi$ -facts.



For Essence to entail Necessity, we need two additional assumptions.

FACTIVITY: If  $\varphi$  grounds  $\psi$  at a possible world w, then  $\varphi$  and  $\psi$  obtain at w.

Nec-Ess: If it lies in the nature of  $\psi$  that n obtains, then it's metaphysically necessary that *n* obtains.<sup>4,5</sup>

FACTIVITY is largely uncontroversial. NEC-Ess is a familiar view about essence (Fine 1994, 2005). The packaged view of Essence, Factivity, and Nec-Ess has the potential to provide a principled explanation of Necessity. To understand how Necessity follows from this package, let us start with the physicalism case.

Suppose Phys grounds Red. By Essence, it lies in the nature of Red that: if Phys obtains, then Phys grounds Red. Since NEC-Ess holds, it's metaphysically necessary that: if Phys obtains, then Phys grounds Red. Since FACTIVITY is true, we know that *Red* obtains if *Phys* does. So have proven that: if *Phys* grounds Red, then  $\square(Phys \rightarrow Red)$ . Since my reasoning does not depend on my choice of grounds or groundeds, this suffices as a proof of NECESSITY.

From the necessitarian perspective, the moral is that there is something missing – perhaps the fact that there is no chromaplasm – from the contingentist's proposed full ground for Red. In general, contingentist full grounds must be missing something (since Nec-Ess and Factivity are true).

Let's now evaluate the assumptions underlying the essentialist response. One might question Factivity or Nec-Ess, but I see two problems if grounding relies too much on essence.

The first problem is that there may not be enough essences to go around. ESSENCE requires that every non-fundamental fact have an essence, but this contradicts much work in social metaphysics and philosophy of biology. Many argue that social or artifactual kinds – e.g. genders, races, artworks

 $<sup>^4</sup>$ There is a weaker principle in the area: if it lies in the nature of  $\psi$  that n obtains, then n obtains if  $\psi$  does. This weaker principle won't secure NECESSITY.

 $<sup>^5</sup>$ One worry about <code>NEC-ESS</code> is that it is too strong. Suppose it lies in the nature of Socrates that he is human. Therefore, in the actual world, Socrates is human. And if Socrates is human in the actual world, you might infer that Socrates exists. I reject this inference. Instead, I hold that it's possible for Socrates to be human even if Socrates does not exist. This view isn't as radical as it sounds. It is common for philosophers to reject the inference from 'x is F' to 'x exists'. First, consider identity claims. It is common to think that it is necessarily true that Socrates is identical to himself. But if this is true, then it will be true that Socrates is identical to himself in worlds where Socrates does not exist. Second, consider simple essentialist statements. It lies in the nature of water that it is composed of H20. Presumably this can be true at the actual world even if water does not exist. In each case, the thought is that there are two ways for 'x is F' to be true: in standard cases, it is true in virtue of the existence of an x that is F; in non-standard cases, the sentence is true because in virtue of other facts – most obviously: the nature of identity, or the nature of water. So the thought is that it is true that Socrates is human in virtue of an essentialist fact, not in virtue of the existence of Socrates.

- exist but have no essences. Within philosophy of biology, it's standard to think the same thing about species and other biological kinds.<sup>6</sup>

On less radical anti-essentialist views, there exist essences of social objects, but there are different sorts of essences, and those objects may not possess the kind of essence needed to ensure NECESSITY. For example, Witt (2011a, 2011b) distinguishes between individual and kind essences. On her view, there are no kind essences of genders but genders are part of the essences of individuals. Understood through the lens of grounding, the idea is that, for each individual x, there is an essence that tells us what grounds the fact that x is the individual that it is. But it is not necessarily true that, given the fact that x has a property F, there is an essence that tells us what grounds the fact that the x has F. The essentialist defense of NECESSITY requires that kind essentialism, not just individual essentialism, be true.

The second problem is that, even if everything does have an essence, there may be some essences – of objects involved in grounding facts – that have nothing to say about what grounds what. Suppose value pluralism is true in the sense that there are multiple fundamentally distinct ways for states of affairs to be good. Then it's plausible that this fact

Good: It's good for me to exercise

has multiple full grounds, namely:

Happy: Exercising makes me happy

Healthy: Exercising makes me healthy

If ESSENCE holds, then the essence of Good should reference some condition that's met by Happy and Healthy. But why? The two full grounds are fundamentally different (by the hypothesis of value pluralism). A more general condition would be disjunctive and artificially imposed. The essentialist would need to argue that value *pluralism* – that things are good in fundamentally different ways – reduces to value disjunctivism – that it lies in the nature of goodness that things are good in ways X or Y or Z. Absent further explanation, this reduction seems artificial.

Arguably, value pluralism and value disjunctivism have different subject matters. Consider the distinction between blue/green and grue/bleen. The latter consists of disjunctive properties (or predicates) while the former does not. This is true even though the grue/bleen distinction can cover

<sup>&</sup>lt;sup>6</sup>See Butler (1990) and Ereshefsky (2010) for examples of anti-essentialism in social metaphysics and philosophy of biology, respectively.

the same logical space as the blue/green distinction. If this common story is true, then we should think there is a difference between disjunctive and non-disjunctive grounds. Unlike the statement of grue, the statement of value pluralism does not seem disjunctive. So it is not obvious that value pluralism just is value disjunctivism.

Some essentialists will not be persuaded by these considerations, given their general commitments to the centrality of the concept of essence in metaphysics. However, remember that the current question is not: should one have essentialist commitments? The question is: must one have a set of specific essentialist commitments if one is committed to grounding? The current considerations suggest that the essence-grounding link is more tenuous and controversial than it appears.

## 4. The case for pluralism

So far, we have discussed putative counterexamples to Necessity, necessitarian responses to those counterexamples, as well as my own objections to those responses. After all the back and forth, where do we go from here?

The standard approach is to keep the back and forth going until we figure out whether necessitarianism or contingentism is true. This would involve responding to various objections, extending certain lines of argument, and arguing for certain assumptions. In short: the standard approach is to do more of what I did in the previous section.

This approach is well-represented in the literature. It follows from a substantive assumption about grounding: that there is a single grounding relation. Call this view grounding monism.

At the time the key papers for and against Necessity were written, the monist assumption went largely unchecked (Trogdon 2013a, 479, fn. 1; Leuenberger 2014, 153; Skiles 2015, 719-20). Recently, however, the monist assumption has been questioned. Some metaphysicians have criticized the idea that a single grounding relation was ever 'pinned down'. Moreover, several metaphysicians have suggested that there are a plurality of grounding relations (Fine 2012; Griffith 2014, 2018; Wilson 2014; Cameron 2015; Koslicki 2015; Rettler 2017; Richardson 2018). Call this broad view grounding pluralism.

In light of these developments, we must take seriously the possibility that there are at least two kinds of grounding. And if we take the general pluralist thesis seriously, we have to take seriously the possibility that one kind of grounding is necessary and another is contingent. In what follows, I will describe such a pluralist theory.

## 5. The structure of pluralism

Every pluralist theory has to answer two basic questions. First: what is the sense in which grounding is plural? Second: what does the relevant plurality consist of? These two questions concern the structure and content of pluralism, respectively. In this section, I will answer the first question.

On my view, grounding is plural in the following senses.

SEMANTIC PLURALISM: "Grounds" can refer to different grounding relations.

KIND PLURALISM: There are multiple, non-trivially different kinds of grounding relations.

Start with Semantic Pluralism. This claim concerns 'grounds' and similar phrases - 'in virtue of', 'metaphysically depends on', - as used in the context of self-consciously ground-theoretic investigations. It does not account for every use of the terms 'in virtue of', 'metaphysically depends on', etc, in present and past metaphysics.

I understand the plurality of reference in terms of context-sensitivity. 'Grounds' refers to different kinds of grounding in different contexts. The current view should not be mistaken for the view that groundingtalk is ambiguous or polysemous. (Correia and Schnieder (2012, 35), Trogdon (2013b), and Tahko (2013) describe pluralism as the view that 'grounds' is equivocal. This is not my view.)

I am thinking of 'grounds' along the lines of ordinary indexicals like 'I', 'tomorrow', and 'can'. There is a unified linguistic meaning which only yields a truth-evaluable semantic content when supplied with a context. In §7, I will explain how I understand the necessitarian/contingentist debate in light of contextualism.

On to KIND PLURALISM. There are multiple non-trivially different kinds of grounding. The notion of a non-trivially different kind can be understood by considering examples. Here are two different kinds of animals: hen and rooster. Intuitively, these two kinds trivially differ from one another. They aren't fundamentally different kinds of animals.

In contrast, human and tiger are non-trivially different kinds of animals. Humans and tigers differ extensively, but they're still animals. They are multicelluar organisms that eat and digest food, and do all the other things that unites the kind animal. So they are non-trivially different kinds, but they still fall under a common kind.

The distinction between non-trivial and trivial kinds is intuitive, and there are different ways to cash out this idea. I will understand it in terms of the genus-species relationship. On this view, kinds are species.

The kinds human and tiger are species of the genus animal. Species, by their nature, non-trivially differ from one another. The differences between species are specified by differentiae, which are facts of the form: to be a member of species s is to be a member of genus q such that p.

My view is that the species of grounding are like human and tiger, not hen and rooster. There is a genus, grounding, of which there are least two species. Grounding is unified, but there is a non-trivial sense in which there are varieties of grounding.

This marks an important difference between my conception of grounding pluralism and that of others. Sometimes pluralism is taken to imply that grounding is disunified and that the varieties of grounding are largely unconnected.<sup>7</sup> Against this view, I acknowledge that grounding is unified, and that there are intimate connections between the different varieties of grounding.

Let us take stock. I've explained how I understand the structure of my specific account of grounding pluralism. On my view, grounding-talk is context-sensitive, and grounding is plural in the sense that there are multiple species of grounding united under a single genus, grounding. Now we should try to determine what those species are and what they have in common.

## 6. The content of pluralism

Most grounding theorists agree that grounding is explanatory in the sense that: if  $\varphi$  grounds  $\psi$ ,  $\varphi$  metaphysically explains  $\psi$  (Fine 2001; Schaffer 2009; Rosen 2010; Audi 2012). I do not take this connection to be an accidental feature of grounding. Rather, grounding is defined (at least partly) by its connection to metaphysical explanation. I call this the explanation-theoretic view of grounding.

This view is, like any substantive view about grounding, controversial. Some grounding theorists explicitly embrace a constitutive tie between grounding and explanation (Litland 2013; Thompson 2016, 2018). Other theorists explicitly reject such a connection (Schaffer 2016). In many cases, the view is neither explicitly affirmed nor denied.

Neutrality is impossible at this stage in the game. To present a concrete pluralist theory, I must adopt a partisan view about the nature of

<sup>&</sup>lt;sup>7</sup>Berker (2018) criticizes grounding pluralism, where pluralism is the view that: there are at least two grounding relations, neither relation can define the other, and there is no other grounding relation that they can be defined in terms of. Assuming that a genus plus a differentia defines a species which I'm willing to assume - my view is not pluralist, in his sense.

grounding. I cannot give a full exposition and defense of my view, but I can motivate the view and outline its content.

The main reason to think that grounding is constitutively tied to metaphysical explanation is that we primarily understand grounding via its role in providing metaphysical explanations. If we were to divorce metaphysical explanation from grounding, we would have no way to single out metaphysical grounding. On the explanation-theoretic view, grounding is epistemically tied to explanation because it is constitutively tied to explanation.

For grounding to be constitutively tied to (or defined by) metaphysical explanation is for it to lie in the nature of grounding that:  $\varphi$  grounds  $\psi$ iff  $\varphi$  metaphysically explains  $\psi$ . Supposing Nec-Ess, it follows that necessarily,  $\varphi$  grounds  $\psi$  iff  $\varphi$  metaphysically explains  $\psi$ .

This constitutive claim is to be distinguished from the stronger claim that grounding is identical to metaphysical explanation; you may think they differ but co-vary. It is also to be distinguished from the claim that grounding relations necessarily back metaphysical explanations; you might think explanations back relations.

One big question remains: what is metaphysical explanation? Despite the many appeals to metaphysical explanation, there is no consensus view on what it is. In an effort to clarify the notion, I take a cue from existing theories of explanations.

Specifically, I take an explanation to be an answer to a question (Bromberger 1993). Someone asks: why did the window break? The short answer is: because Mack threw a rock at it. The long answer is: the window broke because Mack threw a rock at the window. This long answer is what I call an explanation.

Explanations are explanatory truths, truths that serve as the answer to some question. These truths may co-vary with relations of explanatory dependence, but they are not necessarily identical to such relations. So an explanation is the kind of thing that can - and must - be true. I will not speak of false/bad/good explanations.

Different kinds of questions give rise to different kinds of explanations. My claim is that some of those questions are metaphysical questions, so they prompt metaphysical explanations.

I take the concept of a metaphysical question as basic. Just as most grounding theorists have no way of defining metaphysical grounding, I have no way of defining metaphysical questions. The most I can do is give examples, motivate them, and describe their properties.

Now I can explain what is common to every species of grounding; in other words, I can explain how the grounding genus relates to its species. Different kinds of metaphysical questions correspond to different kinds of metaphysical explanations. These metaphysical explanations, in turn, are definitive of different kinds of grounding relations.

## 6.1. What-grounding

Some metaphysical explanations are answers to what-it-is questions. One asks: what is it for something to be water? For it to be composed of H20. What is it for an act to be right? For that act to maximize happiness. In each case, you are specifying what it is for  $\psi$  to be the case. What it is for  $\psi$  to be the case is for  $\varphi$  to be the case. Such claims are (putative) what-it-is explanations.

Here are my paradigm what-it-is explanations.

- UTILITARIANISM: What it is for x to be a right act is for x to maximize happiness.
- KINDS: What it is for x to be water is for x to be composed of H20.
- DISPOSITIONALISM: What it is to believe that p is true is to reliably act as if p is true.

By taking the aforementioned examples as paradigmatic, I am not assuming that they are all true. My suggestion is that they are the kinds of whatit-is explanations relevant to metaphysical grounding.

I understand what-it-is questions as requests for definitions, where a definition is a set of necessary and sufficient conditions. I reach this conclusion by reflecting on the logic of what-it-is explanations.

If what it is for an act to be right is for an act to maximize happiness, then every right act is a happiness-maximizing act. After all, that's what it is for an act to be right. In the other direction: if an act maximizes happiness, then surely that act is a right act. Why? Because what it is to be a right act is to be a happiness-maximizing act.

These reflections push us towards a certain modal condition on what-itis claims. If what it is for  $\psi$  to be the case is for  $\varphi$  to be the case, then necessarily:  $\varphi$  if and only if  $\psi$ . This is the same kind of modal condition associated with definitions.

But what kind of definition? We are not appealing to semantic definition. We are not stipulating that 'right' means maximizing happiness. We also are not making an empirical observation about the meaning of



'right'. Rather, we are trying to define rightness (or a collection of facts about rightness) itself.

We are looking for what is sometimes called a real definition. Rosen (2015, 189) summarizes the idea as follows:

To answer the question "What is courage?" in the intended sense is not to say what the English word "courage" means, or what passes before the mind when we think of courage. It is to say what it is for a person to be courageous —to identify that in which the courage of the courageous person consists by specifying non-trivial necessary and sufficient conditions for courage somehow grounded in the nature of courage itself.

A real definition of X has two properties. First, it is a definition of X itself, not a definition of the word or concept that refers to X. Second, it provides non-trivial necessary and sufficient conditions that are somehow explained by the nature of X. The first property is clear enough. What is the meaning and motivation of this second property?

Consider the following proposal: what it is for an act to be right is for that act to not *not* be right. Assuming classical negation, this proposal gives a set of necessary and sufficient conditions for right action, but these conditions are trivial. They do not bring us any closer to understanding what it is for an act to be right.

Our lack of understanding is not a cognitive error on our part. Rather, it reflects a missing component from the proposed real definition: namely, facts about the nature of right acts. When I specify what it is for an act to be right, I am intuitively saying something about the nature of right action.

For example, the utilitarian not only wants to say that the right acts and happiness-maximizing acts exist in all the same possible worlds, but also that it follows from the nature of right action that every right act is right because it maximizes happiness. Natures can be understood as essences, and the 'because', here, indicates the general notion of metaphysical explanation.

Let me summarize the conditions I have put on what-it-is explanations.

What-IT-Is: What it is for  $\psi$  to be the case is for  $\varphi$  to be the case iff  $\square_{\psi}$  (if  $\varphi$  or  $\psi$ , then  $\varphi$  metaphysically explains  $\psi$ ).

I make three assumptions: (i) we are talking about complete explanations of each kind; (ii) metaphysical explanation is factive; (iii) NEC-ESS is true. Given these assumptions, What-IT-Is implies: if what it is for  $\psi$  to be the case is for  $\varphi$  to be the case, then  $\Box(\varphi \leftrightarrow \psi)$ , where the latter formula



captures our notion of necessary and sufficient conditions. 8 What-It-Is also captures the idea that these conditions follow from the nature of the thing being explained.

What-it-is explanation is a species of metaphysical explanation. For that reason, the proposal is not circular. Metaphysical explanation is a genus of which what-it-is explanation is a species.

On the explanation-theoretic view, every metaphysical explanation corresponds to a grounding relation. The idea is that grounding relations are worldly correlates of metaphysical explanation. In this case, What-IT-Is gives us the following condition on grounding.

What-Ground:  $\varphi$  what-grounds  $\psi$  iff  $\square_{\psi}$  (if  $\varphi$  or  $\psi$ , then  $\varphi$  grounds  $\psi$ ). 10

Note that grounding on the right-hand side of the biconditional is the genus notion. What-grounding, here, is a species of grounding. It is grounding plus the modal and essentiality conditions specified on the right-hand side.

Two final observations about What-IT-Is and What-Ground: (i) they both concern complete/full metaphysical explanations/relations; (ii) they are easily modified to accommodate many-one metaphysical explanations/ relations.

We now have a precise set of necessary and sufficient conditions for one species of grounding, what-grounding. Let us apply this notion to the necessitarian/contingentist debate. My claim is that what-grounding is the best candidate for the grounding relation that obeys NECESSITY. I give five reasons to think this is true.

One: what-grounding not only obeys NECESSITY, but it also explains NECESSITY. The necessity of grounding is not simply taken as an intuitive principle, but it is given justification.

Two: what-grounding explains the essence-grounding link. On the essentialist defense of NECESSITY, grounding is necessary because of its relation to essence. The point of what-grounding, however, is not simply to capture the necessity of grounding, but to capture the notion of a real definition.

Three: what-grounding makes sense of the complete explanation defense of Necessity. What-grounding provides complete definitions,

<sup>&</sup>lt;sup>8</sup>The reasoning is similar to the reason why ESSENCE entails NECESSITY. The difference lies in the added disjunct, which guarantees that groundeds necessitate grounds.

<sup>&</sup>lt;sup>9</sup>This is a contested thesis. For example, see Glazier (2017) for the view that essentialist explanations are metaphysical, but not grounding, explanations

<sup>&</sup>lt;sup>10</sup>This proposal is virtually the same as one of Rosen (2015, 200)'s definition of real definition.

and complete definitions certainly necessitate. Definitions provide the tightest explanatory connection one can have between two distinct objects.

Four: what-grounding is a conservative addition to our metaphysical tool kit. The basic idea of what-grounding goes under various names e.g. reduction (Fine 2001; Rosen 2010), generic or generalized identity (Rayo 2013; Linnebo 2014; Correia and Skiles 2017), metaphysical analyticity (Dorr 2005, 2017), real definition (Rosen 2015; Correia 2017). I am not saying that all of these notions perfectly correspond to what-grounding, only that they all broadly capture the idea of what-it-is explanations that specify non-trivial necessary and sufficient conditions.

Five: what-grounding helps us make sense of the putative grounding claims made by necessitarians. In the physicalism case, the necessitarian offers a definition of pain in terms of physical states (and perhaps a noblockers clause).

Before concluding this section, I should acknowledge two possible wrinkles in my conception of what-grounding.

First wrinkle: on my view, what-grounding may be a kind of identity, but a grounding relation will not have the features of ordinary identity. To start, grounding is explanatory, but (arguably) ordinary identities are not explanatory. Consider: what it is to be water is to be H20. If this is an identity statement, it is no more explanatory than the statement: Hesperus is Phosphorus. Another problem: grounding is (arguably) asymmetric, but ordinary identities are not. In response to this problem, we could either abandon asymmetry or think of grounding as a relation between representations. 11 However, both solutions are controversial.

Notice that these problems only emerge if we assume that: if whatgrounding is a kind of identity, it has all the features of ordinary identity. But everyone agrees that the relevant notion of identity associated with grounding – call it generalized identity – doesn't possess all the features of ordinary identity. So there are identity relations that do not have the properties of ordinary identity. Alternatively, you might say that generalized identity isn't really a kind of identity; it is merely analogous to identity. Either option is acceptable for my purposes.

The second possible wrinkle in my account is that what-grounding is necessary in the *upward* (grounds necessitate groundeds) and *downward* (groundeds necessitate grounds) directions. but necessitarians

<sup>&</sup>lt;sup>11</sup>For discussion of representational grounding and identity, see Correia and Skiles (2017) and Audi (2012,



usually think that the (necessary) grounding relation is only upwardly necessary.

Let  $\neg Block$  be the fact that there are no entities – like chromaplasm – that block the emergence of the mental properties. The necessitarian thinks the following claims are consistent.

- (Phys and ¬Block) ground Red
- (Phys and ¬Block) necessitate Red
- Red doesn't necessitate (Phys and ¬Block)

The intuition is that groundeds are multiply realizable, but if grounding is what-grounding, multiple realizability isn't possible.

I can accommodate this intuition if I give a more detailed description of the case. Let  $\Phi$  be the condition satisfied by the facts that collectively realize the functional role of me-having-a-red-experience. Now consider the following what-it-is claim.

Red-Def: What it is for Red to be the case is for whatever satisfies  $\Phi$  to be the case and for  $\neg Block$  to be the case.

If Red-Def is true, then it lies in the nature of Red that: (a) if  $\Phi$  is satisfied and  $\neg Block$  is the case, then  $\neg Block$  and  $\Phi$ 's satisfiers ground Red, and (b) if Red is the case, then  $\neg Block$  and whatever facts that satisfy  $\Phi$  ground Red.

Red-Def is a natural assumption for physicalists. For the sake of simplicity, I have understood that condition in terms of realizing the functional role of Red, but this functionalist gloss is unnecessary. Instead of  $\Phi$ 's satisfiers realizing the functional role of *Red*, they might instead collectively compose, constitute, or cause Red.

Now imagine a physicalist who accepts Red-Def and also believes that Phys satisfies  $\Phi$ . She can infer that (Phys and  $\neg Block$ ) ground Red. Why? Because the nature of *Red* tells her that, if (*Phys* and  $\neg Block$ ) are the case, then (*Phys* and  $\neg Block$ ) ground *Red*. Since grounding is factive, she can also conclude that (Phys and ¬Block) necessitate Red. Finally, she is free to believe that Red doesn't necessitate (Phys and ¬Block), because the nature of Red-Def only tells us that, if Red is the case, then  $\Phi$  is satisfied; it doesn't tell us that *Phys*, specifically, satisfies Φ.

So I have preserved the possibility that, if (*Phys* and  $\neg Block$ ) ground *Red*, then (Phys and ¬Block) necessitate Red. And I have done so without denying the contingency of (at least one kind of) grounding or the multiple realizability of (at least one kind of) grounding.



Let us take stock. I have given an account of one variety of grounding, what-grounding, and I have shown how what-grounding can make sense of necessitarian intuitions. Next, I will consider another variety of grounding, one that makes sense of contingentist intuitions.

#### 6.2. Why-grounding

I have shown how the necessity of certain grounding claims must follow from the conception of grounding explanations as what-it-is explanations. Now I want to show how the contingency of grounding is possible given the conception of grounding explanations as why-explanations.

Why-explanations are answers to why-questions. Why is donating to charity the right thing to do? Because it maximizes happiness. Why does the statue exist? Because there exist atoms arranged statue-wise. In each case, you are specifying why  $\psi$  is the case.

Here are my paradigm why-explanations.

- Charity: The reason why donating to charity is right is that it maximizes happiness.
- STATUE: The reason why the statue exists is that there are atoms arranged statue-wise.
- Laws: The reason why it is a law that all Fs are Gs is that there is a necessitation relation between F-ness and G-ness.

The immediate question that arises is: what is the difference between why-explanations and what-it-is explanations? On its face, one might interpret the aforementioned claims as offering what-it-is explanations.

We can illuminate this matter by reflecting on the nature of what-it-is explanations. Remember that what-it-is explanations concern the nature of the thing being grounded. But you may want to make grounding claims that aren't quite so strong.

In asserting CHARITY, am I making a claim about the nature of the fact that donating to charity is right? Alternatively: am I presupposing some more general what-it-is explanation like UTILITARIANISM? No and no. The fact that my act maximizes happiness is the reason why it is right for me to donate to charity. And that's it.

Relatedly, we should note that what-it-is explanations clearly necessitate while why-explanations do not. Take a general why-question like: why did he get cancer? Because he smoked cigarettes. We have a true why-explanation even though cigarettes do not necessitate cancer. I think this generalizes to the metaphysical case. In asserting STATUE, I am telling you the reason why a statue exists: because of the existence of particular atoms, arranged in a particular way. My explanation does not obviously imply that the existence of those atoms necessitates the existence of a statue. Nor must I assume the existence of a relevant what-itis explanation that makes this the case.

Despite what I have said, it will still be difficult for some metaphysicians to distinguish between what-it-is explanations and why-explanations. I suspect this is because it is simply difficult for some to imagine a contingent metaphysical explanation. The necessitarian intuition is a strong one.

In response, one could simply assert contingentist intuitions, but that would only leave us with opposing brute intuitions. To make progress, we need an account of why contingent metaphysical explanations seem problematic and an account of why, despite appearances, they are not.

My hypothesis is that contingent metaphysical explanations seem problematic because they appear to be modally unconstrained. (There is another objection in this vicinity: namely, contingent metaphysical explanations are not modally constrained enough. To this, I ask: what makes NECESSITY the only sufficient modal constraint? I see no obvious, non-question-begging answer to this question that I have not discussed already.)

Metaphysical explanation corresponds to grounding dependence, and grounding dependence is supposed to constitute the structure of the world. Assuming that modal properties are genuine features of reality, it is difficult to see how the structure of world would impose no interesting modal constraints on the things it structures.

If (every kind of) grounding is necessary, the modal consequences of grounding are straightforward. If grounding isn't necessary then it looks like anything goes. So  $\varphi$  can ground  $\psi$  in one world, but in a slightly different world where  $\varphi$  is the case,  $\psi$  might not be the case. Since we antecedently reject downward necessity, there will also be possible worlds where  $\psi$  is the case and  $\varphi$  isn't. So grounding would issue neither necessary nor sufficient conditions.

Though a contingentist may resist the intuition that (every kind of) grounding is necessary, it is harder to resist the idea that grounding imposes modal structure. This intuition, I think, is the one that contingentists should accommodate.

As it happens, it's an intuition they can accommodate. The key is to note that there are a range of modal constraints aside from garden variety necessitation. Necessitation is the most familiar modal constraint, but there are other constraints - like counterfactual dependence, supervenience, and their many varieties - that we could consider.

Specifically, I think the contingent kind of grounding has a differencemaking constraint. Difference-making is a notion familiar from discussions of causation. Causes make a difference to their effect, where differencemaking is typically understood as a form of counterfactual dependence (Yablo 2002; Menzies 2004; Sartorio 2004). I will lay out my proposal and then explain and justify its content.

Here is the kind of metaphysical explanation that corresponds to difference-making explanation.

Why-Explanation:  $\varphi$  is a metaphysical explanation of why  $\psi$  is the case iff:

- MINIMAL:  $\varphi$  metaphysically explains  $\psi$
- ¬NEGATIVE: If  $\neg \psi$  was the case, then  $\varphi$  would not metaphysically explain  $\neg \psi$
- Positive: If  $\neg \varphi$  was the case, then  $\neg \varphi$  would not metaphysically explain  $\psi$
- Contrastive: Metaphysical why-explanation is essentially contrastive

This kind of explanation is reflected by a grounding relation I call whygrounding.

Why-Ground:  $\varphi$  why-grounds  $\psi$  iff

- $\varphi$  grounds  $\psi$
- If  $\neg \psi$  obtained, then  $\varphi$  would not ground  $\neg \psi$
- If  $\neg \varphi$  obtained, then  $\neg \varphi$  would not ground  $\psi$
- Why-grounding is essentially contrastive

(For reasons of brevity, these formulations ignore the partial/full distinction. To obtain the condition for partial and full metaphysical explanation and grounding, respectively, we simply preface each instance of 'metaphysically explains' and 'grounds' we find in Why-Explanation and Why-GROUND with 'partial' or 'full'.)

I won't defend the correspondence between why-explanation and whygrounding, as I take this correspondence as a working hypothesis. Instead, I will focus on explaining and defending the content of these proposals.

Each condition on Why-Explanation specifies some aspect of metaphysical difference-making. Minimal tells us that  $\varphi$  makes a minimal contribution to  $\psi$ ; this is the least constrained sense in which  $\varphi$  can make a difference to  $\psi$ . ¬Negative tells us that  $\varphi$  does not make a negative difference to  $\psi$ . Positive tells us that  $\varphi$  makes a positive difference to  $\psi$ . To better

understand ¬Negative and Positive, we need a quick lesson on contrastive why-explanation.

Suppose I ask a (superficially) non-contrastive question: why did it rain today? By adding emphasis, I can make this question a contrastive one. Why did it rain today? We might want to know why it rained rather than snowed today. Or consider: why did it rain today? We might want to know why it rained today rather than yesterday.

¬Negative and Positive in Why-Explanation correspond to two different kinds of contrastive why-explanation. ¬Negative corresponds to questions like 'Why is  $\psi$  rather than  $\neg \psi$  the case?' It seems like a metaphysical explanation of why  $\psi$  is the case should be one where  $\varphi$ , the explanans, singles out  $\psi$  rather than  $\neg \psi$ .

Consider an example offered by Schaffer (2012). He imagines an object O with a maximally determinate shape, where O has a small dent in it. The dent partially explains why O has the shape it has. The shape partially explains why O is nearly-spherical; the object would be spherical if not for the dent. Nonetheless, the dent does not partially explain why O is nearly-spherical. The dent appears to take away from O's near-sphericality.

Schaffer (2012) uses this example, in part, to suggest that grounding isn't transitive, but we can ignore this aspect of the case. The important aspect of this case, for our purposes, is that we have a strong intuition that the dent fails to explain why O is nearly-spherical because the dent takes away from O's being nearly-spherical.

This intuition corresponds to a very specific contrastive constraint on why-explanation: if  $\varphi$  partially metaphysically explains why  $\psi$  is the case, then  $\varphi$  partially metaphysically explains why  $\psi$  rather than  $\neg \psi$  is the case. The dent fails to explain why O is nearly-spherical because the dent cannot explain why O is nearly-spherical rather than not. The dent's presence counts in favor of the negation of the fact we want to explain.

This type of contrastivity, in turn, can be understood in terms of a specific modal condition:  $\varphi$  partially metaphysically explains why  $\psi$ rather than  $\neg \psi$  is the case only if: if  $\neg \psi$  were the case, then  $\varphi$  would not partially metaphysically explain  $\neg \psi$ . I get this (kind of) condition from Krämer and Roski (2017), who use it to make sense of Schaffer's examples.

¬Negative makes sense of the idea that explanans should not make a negative difference to the explanandum. But what about the notion of making a positive difference? This is where Positive comes in.

In her discussion of causal difference-making, Sartorio (2004) proposes that, for a cause c to be a difference-maker to an event e is for c to make

more of a difference to e than the absence of c. She cashes this out in terms of a precise modal condition: if c caused e, then, had e not occurred, the absence of c wouldn't have caused e.

Here is the example she gives to motivate this distinction. Suppose an unfortunate person is tied to a train track and a train is headed toward that person. You have an option of flipping a switch that will alter the course of the train. If you flip the switch, the train will go onto a side track... before getting back onto the main track and continuing toward the victim. Suppose you flip the switch. Intuitively, your flipping the switch isn't a cause of the victim's death, since the victim would have died in the absence of your switch flipping.

This constraint seems intuitive for difference-making causation, and a similar one seems right for difference-making metaphysical explanation (and ultimately, grounding). If  $\varphi$  is a metaphysical explanation of why  $\psi$ is the case, then  $\varphi$ , rather than  $\neg \varphi$ , is a metaphysical explanation of  $\psi$ . The explanans should make more of a difference to the explanandum than its negation.

For example, consider the disjunction P or  $\neg P$ . Positive implies that Pcould not be a metaphysical explanation of why P or  $\neg P$  is the case. The reason is that P fails to make more of a difference than its negation.

A more interesting case concerns the grounding of generalizations.

Classical logic tells us that generalizations can be vacuously true. So it will be true that every Swiss swan is white if there are no Swiss swans. Now suppose you think the Swiss-swan facts collectively metaphysically explain the fact that every Swiss swan is white. Positive implies this generalization cannot be metaphysically explained by the absence of those same facts. This is a substantive result.

Now I will explain (and justify) the last condition on metaphysical whyexplanation: Contrastive. This constraint tells us that metaphysical whyexplanation is essentially contrastive. More precisely, this means: it lies in the nature of metaphysical why-explanation that: if  $\varphi$  metaphysically explains why  $\psi$  is the case, then  $\varphi$  rather than  $\neg \varphi$  metaphysically explains why  $\psi$  rather than  $\neg \psi$  the case. The corresponding grounding constraint tells us that why-grounding is a quaternary relation, with argument places for contrasts. So if  $\varphi$  why-grounds  $\psi$ , then  $\varphi$  rather than  $\neg \varphi$  whygrounds  $\psi$  rather than  $\neg \psi$ . In this respect, my view of why-grounding aligns with the view described by Schaffer (2012, 2016).

Why think that why-grounding is essentially contrastive? After all, you might reduce the contrastivity of why-grounding explanation to the two modal constraints Positive and ¬NEGATIVE. Indeed, this is the strategy of

Krämer and Roski (2017), who seek to reduce the contrastivity of grounding explanation to a series of modal constraints on non-contrastive grounding.

The problem is that the reductive approach predicts that every case of what-grounding is a case of why-grounding, but metaphysical what-it-is explanations and metaphysical why-explanation have different subject matters. In a metaphysical why-explanation, we get an explanation of why some liquid is water rather than not. In a metaphysical what-it-is explanation, we get an explanation of what it is for some liquid to be water; there is nothing about the possibility of the liquid not being water.

The subject matter difference is important because I am taking the idea of a metaphysical question as fundamental. The question 'What is it for  $\psi$ to be the case?' differs from the question 'What is the  $\varphi$  rather than  $\neg \varphi$  that explains why  $\psi$  rather than  $\neg \psi$  is the case?' To collapse the distinction between the two questions is to collapse the distinction between two kinds of explanations. And if we make the latter choice, we adopt an entirely different view of grounding.

Moreover, if why-grounding is not essentially contrastive, it is hard to distinguish it from what-grounding. It would have no clear differentia. On the current account, however, the differentiae are clear: why-grounding is grounding plus difference-making; what-grounding is grounding plus definition. Furthermore, the two notions are exclusive: cases of what-grounding and why-grounding do not overlap.

Despite the previous considerations, you might insist what-grounding is contrastive. After all, we could intelligibly ask: what is it for  $\varphi$  rather than  $\neg \varphi$  to be the case? What is it for an act to be right rather than not? If this kind of question is intelligible, it suggests that what-grounding indeed is a kind of difference-making grounding. Indeed, you could think of what-grounding as grounding plus difference-making and definition. In that case, what-grounding is a species of why-grounding.

Here is an argument against the view that what-grounding is a species of why-grounding. If what-grounding is a species of why-grounding, then what-grounding is (essentially) contrastive. And if what-grounding is contrastive, then there exist contrastive real definitions. But there are no contrastive real definitions. Or at least, it is unclear what contrastive real definitions (or just contrastive definitions) would be. Therefore, whatgrounding is not a species of why-grounding.

That said, there is a connection between real definitions and differencemaking. Epistemically put: once you know a real definition, you constrain the possibilities for difference-making explanations. Suppose I know that for an act to be right is for that act to maximize happiness. This leads to a natural explanation of why it's true that an act is right rather than not: because it maximizes happiness rather than not. This is a possible connection between two types of grounding, one which should be explored in future work. However, this connection does not suggest a simple reduction of what-grounding to why-grounding.

I will end my discussion of why-grounding by pointing out that it's not, in some sense, a new notion of grounding. Rather, it's a notion that philosophers already have in mind; they have simply failed to realize it is a species notion as opposed to a genus notion.

Why-grounding corresponds to the type of grounding that is importantly analogous to causation. This is certainly the case for Skiles (2015) and Leuenberger (2014), who are contingentists. I suspect this is also the case for others who think of grounding as analogous to causation, though they will likely protest the idea that why-grounding is contingent (Fine 2012; Schaffer 2016; Krämer and Roski 2017; Wilson 2017).

Most of those who think of grounding as importantly analogous to causation appeal to difference-making and counterfactual dependence to explicate grounding (Skiles 2015; Schaffer 2016; Krämer and Roski 2017; Wilson 2017, 2016). For this reason, I think it's plausible that grounding as causation is, fundamentally, grounding as metaphysical differencemaking.

Another place to find why-grounding is in cases where grounding is tied to a distinctive kind of why-explanation; Litland (2013) and Richardson (2018) are good examples of this. Finally, Krämer and Roski (2017) give an explicit account of what they call difference-making grounds.

My goal, here, has not been to have the deliver the final account of whygrounding. Rather, I want to show what a contingent species of grounding would look like and give an explanation of why such contingency is not problematic: namely, because we can put substantive modal constraints on grounding even if Necessity is false.

## 7. Revisiting the debate

I've argued that there are two species of grounding, where one is necessary and the other is contingent. If I am correct, what should we say about the debate between necessitarians and contingentists? There are a few possibilities here.

The first possibility is that necessitarians and contingentists simply talk past one another. On this view, when a necessitarian says 'grounds', he



means what-grounds, and when a contingentist says 'grounds', she means why-grounds. So the sentences 'Grounding is necessary' and 'Grounding is contingent' will both be true, relative to the right contexts.

This view doesn't make sense of the clear disagreement between selfidentified necessitarians and contingentists. They take themselves to be disagreeing. Why shouldn't we take their claims at face value?

The second possibility is that necessitarianism and contingentism are theories of the grounding genus. If this is the case, then contingentism is true because it's true of the grounding genus. Therefore, the sentence 'Grounding is contingent' will always be true.

I think this view reads too much into existing necessitarian and contingentist proposals. The idea of grounding pluralism isn't usually considered a possibility for most necessitarians and contingents, so it's implausible that their view would be about the genus of grounding - a notion that is only relevant when pluralism is a possibility.

The third possibility is that there is presupposition failure on both sides. On this view, necessitarians and contingentist both think there is a single basic kind of grounding, but the necessitarian thinks it's necessary while the contingentist doesn't. Because this presupposition is false, the sentences 'Grounding is necessary' and 'Grounding is contingent' will both be false.

This strikes me as the most plausible possibility. The necessitarian/contingentist debate currently isn't built with pluralist distinctions in mind. However, pluralists can capture much of what is interesting in this debate. There is a sense which necessitarians and contingentists are right about some features of grounding, even if they are both wrong to think there is only one kind of grounding.

Now, there is a way of thinking about pluralism where the thesis simply produces more necessitarian/contingentist debates. You might reject the contingency or necessity (or existence) of the different species of grounding I've described. In that case, we would actually have two necessitarian/ contingentist debates: one about the necessity of what-grounding and another about the necessity of why-grounding.

It's possible for the diehard necessitarian or contingentist to continue fighting over the modal properties of the species of grounding. I don't see the basis for this further debate, but if such a debate was had, we will nonetheless have made progress. Why? Because the resulting debate will be clearer about what kind of grounding we are talking about.

So even if pluralism doesn't make the necessitarian/contingentist debate disappear, it does allow it to continue along more perspicuous



lines. We stop asking 'Is grounding necessary?' and instead ask, for each species s of grounding, 'Is grounding, necessary?'

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