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Irrealism about Grounding

ABSTRACT: In this paper I explore irrealist alternatives to orthodox realism about grounding, and claim that at least some of these alternatives represent fertile areas for future discussion.

Contemporary metaphysics is awash with talk about *grounding*. Grounding taken to be an explanatory relation of metaphysical dependence which can act as a way of cashing out the intuition that reality exhibits a kind of *structure*; metaphysics is not just about what there is, it's about what depends on what (see Schaffer 2009). Grounding is generally assumed to be a theoretical primitive; it is not analysable in other terms (see e.g. Schaffer 2009: 363-4; Rosen 2010: 113). Friends of grounding thus often attempt to introduce the notion by appeal to some canonical examples of grounding claims, such as the following:

(a) Sets are grounded in their members

(b) The proposition <snow is white> is true in virtue of snow's being white

(c) Tables are grounded in the atoms that compose them

(d) Moral facts depend on natural facts

(e) P ∨ Q because P

Most friends of grounding think a number of different locutions can be used to express grounding claims, as in the examples above. Friends of grounding also tend to agree that the relevant locutions are *explanatory*. There is, however, widespread disagreement about the best way articulate grounding claims, as well as about the precise nature of the relationship between grounding and explanation. Further points of dispute include what are the relata of the grounding relation (whether grounding relates only facts or true propositions, or also entities of other ontological categories),[1] and how grounding talk is to be connected to the notion of fundamentality (see Schaffer, 2009; Sider, 2011; Fine, 2001; 2012; Trogdon, 2013). Orthodoxy has is that grounding is transitive, asymmetric, irreflexive, non-monotonic and hyperintensional, though many of these suppositions has come under fire in some of the recent literature.[2] Details of the logic of ground are still a matter for debate (see e.g. Correia, 2010; Fine, 2011; 2012; and deRosset, 2013; forthcoming).

[1] For a defence of the former conception see e.g. Audi, 2012a; 2012b; Fine, 2001; 2012, and of the latter see e.g. Schaffer, 2009; 2010; 2013.

[2] See Schaffer (2012) on transitivity; Jenkins (2011) on irreflexivity, and Barnes (MS) and Thompson (2016) on asymmetry). Rodreguez-Pereyra (forthcoming) argues that grounding is neither transitive, nor asymmetric, nor irreflexive.

This is not the place to survey different conceptions of grounding.[3] Instead, the aim of this paper is to challenge a fundamental assumption that pervades the work of all philosophers discussing grounding; that of realism about grounding. We can think of realism about a given domain of discourse as the conjunction of two (related) theses: (i) that the objects in that domain exist, and (ii) that they do so independently of anybody's beliefs, linguistic practices, and conceptual schemes. Realists about grounding thereby think that grounding relations are part of metaphysical reality, and that their existence and nature is not dependent on or determined by anything anybody thinks or says about grounding.

I take irrealism about grounding to be the rejection of all forms of realism about grounding. Irrealists might deny that there are any grounding relations, or they might deny that those relations exist independently. The aim of this paper is to get some options for irrealism about grounding on the table, and thus to pave the way for future, more detailed discussion. Because I think that even precinding from any specific assumptions about the nature of grounding, irrealism about grounding is worth thinking about, I make as few such specific assumptions as possible. Consequently, the paper is fairly course-grained, and has a broad scope.

I begin with a discussion of a position I term eliminativism about grounding, and suggest that a more nuanced form of irrealism proves preferable. In the rest of the paper I explore some possibilities for such an irrealism, discussing first error theory (section 2), fictionalism (section 3), and non-cognitivism (section 4), where I focus in particular on expressivism about grounding. I then turn to discuss cognitive expressivism (section 5) and finally subjectivism (section 6). Section 7 concludes.

1. Eliminativism

The only form of irrealism about grounding that has been thus far considered in the literature is an outright rejection of the existence of any such relation. Somewhat confusingly, the term that has become associated with this position in the literature is *scepticism* about grounding. Since that term suggests doubt rather than outright denial, I won't employ it to characterise the position under discussion here (though note that various forms of scepticism about grounding might provide motivation for forms of irrealism). Instead, I call this rejection of grounding *eliminativism* because its proponents advocate the elimination of grounding talk from metaphysics. They maintain that there are no grounding relations, and that we are better off not talking about grounding. Eliminativists might claim that grounding talk is incoherent (e.g. Daly, 2012; Hofweber, 2009) or that it has no distinctive role to play (e.g. Wilson, 2014; Koslicki, 2015).

[3] For that, see Clark and Liggins (2012); Correia and Schnieder, (2012); Trogdon, (2013a); Bliss and Trogdon, (2014); and Raven (2015).

1.1. Intelligibility

Daly's arguments for eliminativism consist mostly in rebutting realist arguments for the intelligibility of grounding talk. Since friends of grounding generally assume that grounding is a theoretical primitive, the onus is on them to clarify the nature of the relation. Daly argues that each of the strategies employed by friends of grounding to explicate their notion is unsuccessful.

First, Daly argues that the logical properties of grounding don't fix the content of the term 'grounding' (because those properties are shared with the notion of explanation). Second, he claims that tracing analytic connections between grounding and other notions (as in Rosen, 2010; Trogdon, 2013a) won't help, because those other notions are either too close to grounding not to be themselves tainted by its obscurity, or far enough away that their connection to grounding is questionable. Daly's final claim is that appeal to purported examples of grounding to elucidate the notion will fail because anyone who fails to understand 'grounding' will consequently fail to understand any examples using that notion.

Though Daly's arguments go some way to towards motivating irrealism about grounding, we ought not to exaggerate their efficacy. That the logical properties of grounding don't serve to fix its content is not by itself reason to resist realism about grounding. By taking those properties into account we might intend only to restrict the notion sufficiently to get a fairly good idea of what is at stake, even if doing so does not distinguish grounding from all other notions in the vicinity. Similar responses also limit the scope of Daly's second argument. Although, if successful, the argument robs the grounding-advocate of an attractive way to elucidate grounding talk, the friend of grounding can still endorse Rosen's plea that we 'relax our antiseptic scruples for a moment and admit the idioms of metaphysical dependence into our official lexicon', in the understanding that 'if this only muddies the waters, nothing is lost; we can always retrench', but that 'if something is gained...we may find ourselves in a position to make some progress' (Rosen, 2010: 110). In fact, the case Rosen makes for making use of grounding locutions is one that might appeal to an irrealist about grounding (see e.g. section 3).

Most parties to the grounding debate agree that the most effective way to argue for the intelligibility of grounding talk is by appealing to purported examples of grounding, but Daly's sceptical response elicits a kind of dialectical stalemate. It is true that the sceptic can always deny understanding, and such a denial might sometimes be appropriate. The worry is that one can always deny understanding, whether doing so is really appropriate or not (one is reminded of Lewis' (1986: 203, note 5) quip: 'any competent philosopher who does not understand something will take care not to understand anything else whereby it might be explained'). If the majority of people think they do have a good enough grip on the notion, the fault may be with the eliminativist rather than with the proponent of grounding. If we have a notion that enough

people understand enough for it to do useful, recognisable metaphysical work, we at least ought not to dismiss it out of hand. Other irrealist strategies discussed in the sections below allow for grounding talk to do that work without incurring the problematic commitments of full-blown realism about grounding.

Thomas Hofweber defines 'esoteric' metaphysics as metaphysics that is focused on questions involving distinctly metaphysical terms (2009: 267), and takes idioms of dependence meant in a metaphysical sense to belong to esoteric metaphysics. So far as Hofweber is concerned, grounding talk is unintelligible to the uninitiated, and moreover is unnecessary because purported instances of grounding are really just examples of logical entailment, or conceptual priority, or mathematical priority (see Hofweber 2009: 269). Whether or not we buy into Hofweber's characterisation of esoteric metaphysics, one particularly interesting suggestion he makes is that the idioms of dependence he attacks conflate an understanding of priority in the sense in which it is familiar from natural language and from more 'egalitarian' metaphysics (i.e. metaphysics where questions are expressed in ordinary, everyday, accessible terms) with a distinctively metaphysical conception of priority. Examples given to elucidate the notion of grounding are of the former understanding of priority, where the notion they are employed to encourage understanding of is of the latter. The possibility of this sort of conflation motivates some of the positions discussed below.

1.2. Level of grain

A good argument for eliminativism about grounding is given in Wilson (2014), who claims that philosophers almost never make general 'big-G' Grounding claims without a more specific relation in mind (2014: 549). For example, when naturalists say that the mental is grounded in the physical, they might be a type-identity theorist, or a token-identity theorist, or a functionalist. When people say that the dispositions of a thing are grounded in its categorical features, they again have in mind either a token-identity theory, or a functionalist theory, and so on. Wilson claims that grounding is 'metaphysically underdetermined' because further more highly specified accounts of the dependence in question are always available. She argues that it cannot then be the case that Grounding is needed in specific investigations into metaphysical dependence, because we can always work with the more specific account we have in mind.[4]

The best response to this criticism is one Wilson herself considers – that (big-G) Grounding marks an appropriate level of grain for investigations into metaphysical dependence. Grounding is a useful addition to our toolkit alongside the more specific grounding relations we already admit because it allows as to make appropriately general claims (e.g. that grounded entities

[4] Koslicki (2015) argues for the same point.

cannot come apart modally from their grounding entities) (Wilson, 2014: 554-7). We might add that this is cause to reject Wilson's characterisation of things – it is not the case that philosophers always have a more specific relation in mind when they make grounding claims, because sometimes those claims are claims *about grounding*, where 'grounding' is to be understood in Wilson's 'Big-G' sense.

Wilson's reply to this strategy is that it motivates adopting grounding as a merely pragmatic, and not as a metaphysical notion. This she takes to rob grounding of any interesting metaphysical substance, and thus to make it into a very different notion to that which friends of grounding are keen to discuss. The irrealist about grounding can think that Wilson's arguments provide excellent motivation for irrealism about grounding, but not for the eliminativism we have been discussing. The idea that grounding talk might have some pragmatic benefit independently of the metaphysical status of grounding relations motivates many of the irrealist accounts discussed below. The point of departure between Wilson and the irrealist concerns how interesting an account of grounding that has a non-realist basis might be. The various irrealist accounts discussed in sections 2-6 offer different answers to the question of what is interesting or worthwhile in a non-realist approach to ground.

1.3. Epistemology of grounding claims

Other motivations for doubting or denying the existence of grounding relations and thus for eliminating grounding talk from our vocabulary have not been discussed in the literature. I will briefly run through a couple of them, since they also provide reason for rejecting realism without embracing eliminativism. These motivations constitute a form of epistemic scepticism about grounding; the worry that grounding relations conceived in a realist spirit are not the sorts of things we can reliably come to know about.

One species of worry is that we are not in possession of adequate resources for forming reliable beliefs about grounding, and so knowledge of grounding claims ought to be considered impossible. Note, however, that grounding facts are generally assumed to be metaphysically necessary (see e.g. Trogdon 2013b) and so care must be taken to present such epistemic worries in a way that doesn't rely on our being able to evaluate counterfactuals which the friend of grounding will take to be metaphysically impossible (i.e. counterfactuals of the form 'if *A* didn't ground *B*, then...'). For example, a sensitivity constraint on knowledge of grounding claims (for an agent S to know some grounding claim g, it must be the case that had g been false, S would not have known g) does not provide a legitimate basis for an argument that we cannot have knowledge of grounding claims. The friend of grounding can deny the premise of the argument, because it contains a conditional with an impossible antecedent.

Like most debates in metaphysics, discussions about what grounds what are insensitive to empirical investigation. Instead, judgements about grounding are generally made by appeal to intuitions about cases. The debate about the kind of justification that can be afforded by intuitions rages on, and this is not the place to get into it. Nevertheless, the irrealist might call into question the idea that intuitions about grounding provide evidence for facts about mind-independent grounding relations, rather than merely revealing something about the way we understand the world.

What we can reliably expect to learn from reflecting on our intuitions about purported examples of local grounding relations (such as the relation between Socrates and his singleton set) is how the entities concerned are related within our conceptual scheme, and we do not have good reasons to think that our conceptual scheme (which is partly dependent on our theoretical commitments) provides a perfect reflection of reality. As David Wallace (2010: 69) quips, 'our intuitions...were designed to aid our ancestors on the savannahs of Africa, and the universe is not obliged to conform to them'. It is certainly conceivable that the structure of the world could have been the same, and our beliefs about it have been very different.

A different form of epistemological scepticism about grounding bears some similarity to Mackie's (1977) argument from queerness. Mackie offers an error-theory about moral properties – he held that there are no moral properties, and so atomic sentences presupposing the instantiation of moral properties are systematically false. Mackie thought that if moral properties existed, they would be both metaphysically and epistemically queer; metaphysically queer because of their unusual motivational force, and epistemically queer because of the perceptual faculty we would seem to require in order to track them. Grounding is taken to be a relation of metaphysical explanation, and though very little has been said about metaphysical explanation and about the connection between metaphysical explanation and grounding in the literature,[5] it is usually taken for granted that metaphysical explanation is *ultimate* explanation (see Fine 2012); once a complete metaphysical explanation of some fact has been provided, there is no further explanatory work to be done.

There is some normative force to this conception of *ultimate* explanation, and that normative force is queer in something like Mackie's sense. The objectively correct, ultimate explanation of some phenomenon might come apart from the interests and the background and theoretical commitments of the agent seeking that explanation, and so the objectively correct explanation might seem to the agent to be unsatisfying.[6] This is analogous to the way in which, if objective

[5] See Thompson (in progress a)

[6] If explanation is understood in a more epistemic way this problem doesn't arise; in that case, the interests of the agent are built in to what is the 'correct' (or best) explanation (but this epistemic conception is in tension with realism about grounding).

moral properties are thought to have motivational force, an agent's reasons might come apart from her desires.

We can bring out what is strange about the idea that we might be expected to accept an explanation that comes apart from our interests using an example from van Fraassen, which he in turn adapts from Aristotle. A father asks his son why the outdoor light is on, to which the son responds by explaining that electricity is reaching the bulb because the switch completes the electric circuit that connects the bulb to the power source (van Fraassen, 1980: 131). The father feels the son is being impudent, because the answer he sought was something like 'because we are expecting company'. If there is an objectively correct (metaphysical) explanation, then presumably it is the former, and the father ought to end his enquiry there.[7] We nevertheless are justified in feeling that, in this case, the former explanation was not relevant. If there is no place for relevance in Fine's account of metaphysical explanation (or in other accounts that tie the notion of ground to that of metaphysical explanation), then there is a queer obligation to end inquiry when presented with the 'objectively correct', metaphysical explanation, irrespective of one's own interests.

As in the moral case, there is also an epistemic element to the queerness exhibited the realist's grounding relations. Not only would grounding be metaphysically queer in the sense that it brings with it an obligation to accept explanations irrespective of an agent's interests, but knowledge of objective, mind independent grounding relations, like knowledge of objective moral properties, would seem to require possession a special kind of faculty capable of tracking the relation. There is no reason to think that intuitions reliably track grounding relations (and divergence of intuitions regarding specific instances of grounding provides some evidence that they don't). Realists about grounding thus owe an account both of the explanatory force of instances of grounding, and of our ability reliably to know about those instances.

2. Error-theory

The error-theorist's objections to realism about grounding concern the existence dimension of realism – error theorists deny that grounding relations enjoy any kind of existence. Error-theorists take sincere utterances of sentences about grounding to express propositions about grounding, and hence to be genuine representations of putative grounding facts. They also maintain that acceptance of a sentence about grounding involves believing the proposition expressed. But since (according to the error-theorist) there are no grounding relations,

[7] This is something of a placeholder; an ultimate metaphysical explanation is more likely to be at the level of fundamental physics than at the more macroscopic level discussed in the main text.

propositions about grounding (e.g. that *A* grounds *B*) are systematically false,[8] and are believed in error (this is what gives the theory its name).

Error-theorists might deny the existence of grounding relations based on similar considerations to those discussed above, and so consider themselves error-theoretic eliminativists about grounding talk. There are, however, various reasons for the error-theorist to resist eliminativism about grounding. First, the arguments for eliminativism as discussed in the literature and rehearsed above were shown to be found wanting. Second, eliminativism is uncharitable to ordinary speakers because it convicts both philosophers and ordinary speakers who employ grounding locutions of massive unexplained error. Far more charitable, if they do indeed talk in error, is to find some suitable explanation for their engagement in the discourse. Finally, on a promissory note, I will argue below (section 3) that there are some advantages of engaging in grounding discourse. Clearly, eliminativists about grounding are closed off to any such advantages. A better strategy for the error theorist about grounding discourse to assume is to adopt a form of fictionalism about grounding, which dampens the assertive force of the problematic utterances.

3. Fictionalism

Fictionalists about some domain of discourse agree with error theorists that typical utterances of sentences in the domain are truth apt and express propositions that represent the putative subject matter of the relevant sentence. Fictionalists about grounding thereby think that sentences about grounding express propositions about grounding. However, fictionalists differ from error theorists in that they deny: (i) that a typical utterance of a sentence *S* about grounding is *assertive* (i.e. that in uttering S, competent speakers who understand S express the proposition associated with S), and (ii) that acceptance of a typical sentence S about grounding involves belief in the proposition expressed by S.

Fictionalists can be characterised in terms of their commitment to two theses, one ontological and the other linguistic (Eklund, 2011). The ontological thesis is held in common with other irrealists who object to the existence dimension of realism; the entities characteristic of the discourse in question do not exist (i.e. there are no grounding relations). The linguistic thesis is that typical utterances of sentences in the relevant discourse are not (or ought not to be) attempts at literal truth. Sentences characteristic of the discourse are representations that are good or interesting or useful independently of their truth value.

[8] Of course, not *all* sentences about grounding are false according to the error theorist. Sentences like 'there are no grounding relations', '*A* doesn't ground *B*' and '*B* is ungrounded' might all be true (because they don't commit us to the existence of grounding relations). As is standard, I describe the error theorist's commitment as being to the *systematic* falsity of grounding propositions in order to circumvent this complication.

There are various ways in which we might sharpen the fictionalist's account. Here I'll discuss three such sharpenings, and apply them to grounding discourse. The first is metalinguistic fictionalism, which has been defended (in different ways and with respect to different subject matters) by van Fraassen (1980) and by Field (1989). The second is a form of the figuralism defended by Yablo (2001; 2005) and the third is a form of non-assertion fictionalism such as that sometimes associated with Field (1980). Following Kalderon (2005, chapter 3) I'll call the proposition expressed by a target sentence of the grounding discourse *fictional content*. Fictionalists deny that typical utterances of the target sentences are assertive, but many versions of fictionalism maintain that some content is *quasi-asserted* by an utterance of a sentence S of the relevant discourse. The *real content* of the target sentence is the proposition (if any) asserted by a quasi-asserted sentence.

We should note that orthogonal to the distinction between the versions of fictionalism discussed below is a distinction between *hermeneutic* and *revolutionary* or *revisionary* fictionalism (see e.g. Stanley, 2001: 36; Eklund, 2005: 557). Hermeneutic fictionalism is a thesis about the actual nature of the discourse – it holds that statements made within the discourse do not aim at the literal truth but only appear to pretend to do so; normal use of the discourse involves pretence. Revolutionary fictionalism by contrast is a prescription for reforming the discourse – it holds that we *ought* only to make quasi-assertions, and that the point of engaging in the discourse would be achieved if we made only quasi-assertions.[9]

3.1. Metalinguistic fictionalism

Metalinguistic fictionalism is the family of fictionalist positions that takes utterances of the target sentences to be quasi-assertions about the content, or some other property, of a fiction (where in our case that fiction will be a metaphysical theory). The proposition expressed by the sentence is its fictional content, which the fictionalist takes to be literally false. However, what is quasi-asserted by an utterance of the relevant sentence (its real content) is often true. For example, the metalinguistic fictionalist might hold that a quasi-assertion of S is true iff according to the grounding fiction, S; the quasi-asserted proposition is that according to the grounding fiction, S (c.f. Kalderon, 2005: 212).

An alternative metalinguistic view can be modelled on van Fraassen's constructive empiricism. van Fraassen takes the utterance of a theory not to be a quasi-assertion of its fictional content, but rather to be a matter of displaying the theory, 'holding it up to view' and claiming certain virtues (such as empirical adequacy) for the theory (van Fraassen, 1980: 57).

[9] The positions I describe in this paper are versions of hermeneutic fictionalism. At this early stage of laying out the options for irrealists about grounding, the distinction between hermeneutic and revolutionary fictionalism can be set aside. For further discussion of the issue, see Thompson in progress b.

The theory does not need to be true in order to have these virtues, and so the fictionalist is not committed to the truth of the content of the theory.

This sort of metalinguistic fictionalism can be motivated by some arguments for realism about grounding that purport to demonstrate the usefulness of grounding locutions in metaphysics. The best example of this is Rosen (2010) who makes a strong case that the idioms of dependence can be used to frame general metaphysical principles, and demonstrates how those principles interact with other principles we accept. Rosen takes the upshot of this project to be that 'we have no reason to doubt that an adequate theory [of grounding] might be attainable' (2010: 134). Rosen seeks to demonstrate that we should take the idioms of dependence seriously because such ways of speaking are vindicated by the use they can be put to in making sense of various debates in metaphysics and in framing metaphysical principles.

The metalinguistic fictionalist about grounding can accept everything that Rosen says. Sentences about grounding have various non truth-involving properties that are beneficial in metaphysics – notably those of framing metaphysical principles and of clarifying metaphysical debates. The metalinguistic fictionalist can then maintain (at a crude approximation) that when a speaker utters sentence S about grounding she asserts that the fictional content of S has the property that its acceptance would help clarify metaphysical debates and frame metaphysical principles. More generally, that acceptance of S would help advance metaphysical theorising.

3.2. Objectual fictionalism

Fictionalists need not accept that the real content of a target sentence is about the content of a fiction. Instead, they might maintain that the real content of a sentence S about grounding is the real-world conditions that make it fictionally true that S. The champion of this approach to fiction is Walton (1990), who takes fictions (in all their forms) to be games of make-believe. Imagine a group of children playing a game of Cops and Robbers. If one of the children playing a robber starts to run away, and a child playing a cop shouts 'Quick, a robber is getting away!' then she asserts something that is true relative to the pretence (although it is, of course, literally false that a thief is running away from the children). What makes the cop's assertion appropriate is the real-world event of a child, designated 'robber' starting to run away. The moral is that real-world conditions generate fictional truths.

So long as a speaker is engaged in a pretence, a quasi-assertion of S does not commit her to the truth of its fictional content (Kalderon, 2005: 124). So, when a speaker makes a grounding claim such as 'singleton sets are grounded in their sole members' she makes a correct claim about what is true within the pretence, and thereby correctly asserts that certain real-world conditions obtain. We can give various accounts of what real-world conditions a speaker quasi-asserts obtain when she utters a grounding sentence. She might assert for example, that there is

a strong conceptual link between singleton sets and their sole member such that the concept of the singleton set 'includes' that of the member, or perhaps that a full understanding of the nature of the set requires an understanding of the nature of the member, or perhaps even that some kind of set-building relation obtains between the member and the singleton. The fictionalist can tell a further story about the origin of the pretence.[10] Other possibilities include adaptions of the expressivist proposals outlined in section 4.2.

A variation of the metalinguistic fictionalism discussed above can also be considered a form of objectual fictionalism. The Rosen-inspired fictionalist might not take the real content of quasi-assertions to be their fictional content, but can instead take it that in quasi-asserting sentences about grounding we specify that the conditions under which acceptance of such sentences would advance metaphysics do in fact obtain. For example, if the world is such that it's being the case that singleton sets are grounded in their members would advance metaphysics, then a quasi-assertion of 'singleton sets are grounded in their members' is true.

3.3. Non-assertion fictionalism

The final option for the fictionalist is to claim that there is no proposition associated with a quasi-assertion of a target sentence. The sentence thus has no real content at all, but is to be used merely as a device for simplifying or systematising the relevant discourse (this is arguably the position of Field (1980), who defends the view that there are compelling instrumentalist justifications for continuing to engage in mathematical discourse, but declines to say what, if anything, mathematical utterances might be used to assert). This kind of fictionalist about grounding could argue that grounding talk plays a useful role in metaphysics, but refrain from commenting on what (if anything) sentences in the domain could be used to assert.

The difficult task for the non-assertion fictionalist about grounding is that of justifying our continued engagement in grounding talk. For the metafictional fictionalist and the objectual fictionalist there is some kind of link between the propositions expressed by the target sentences in the domain, and the quasi-asserted real content associated with utterances of the target sentences. Where there is no such real content and merely a false proposition expressed by utterances of the target sentences, the fictionalist has a harder task justifying the continued use of the relevant sentences. Field (1980) justifies our continued engagement in mathematical discourse by claiming both that mathematical theories are conservative over nominalistic ones (that nothing that can be proven using mathematics cannot be proven without it), and by making a strong case for the instrumental benefits of continued engagement in mathematical discourse.

[10] Restrictions on space prevent me from addressing this question here. See Thompson (in progress b) for details.

Like the non-assertion fictionalist about mathematics, this kind of fictionalist about grounding can point to various benefits of continued engagement in the grounding discourse. Alongside the aforementioned role grounding might play in simplifying and systematising debates in metaphysics, reference to 'big-G' grounding is beneficial because it ranges schematically and neutrally over more specific 'small-g' grounding relations such as composition, set membership, type identity, functional realization, the determinate-determinable relation, and so on (see Wilson, 2014: 557). It is often beneficial to talk in terms of features common to all of these relations, perhaps because we want to convey some sort of significant dependence (its nature and its direction) without getting clear on the details, or because it's not yet clear to us *which* of these small-g relations obtains (though it is obvious that at least one of them does) or because our metaphysical theorising is guided by a distinctive epistemic feature of these small-g relations, such as a direction of explanatory dependence, or an understanding that a grounded entity is 'nothing over and above' the entity that grounds it (c.f. Wilson, 2014).

I'll mention one further pragmatic advantage of appeal to grounding. Fine (2001) appeals to grounding talk in order to mark a distinction between realist and irrealist about a given domain of discourse. The issue (addressed in Fine, 2001, and also by Drier (2004)) is that sophisticated, contemporary versions of antirealist approaches have become motivated to find ways to accommodate the way in which language is used by ordinary speakers. Moral expressivists are thus willing to affirm that torturing children is wrong, mathematical nominalists agree that there are prime numbers between 5 and 10, and mereological nihilists are happy to talk about placing things on tables. In combination with the rise in popularity of minimalist theories of facts and truth (such that all there is to truth is something like collected instances of the schema ⌜S⌝ is true iff S), this has led to moral irrealists further being willing to affirm (e.g.) that torturing children is *really* wrong, it's *true* that torturing children is wrong, and so on. Irrealists have thus began to sound a lot like realists, threatening our ability to recognise a distinction between the two positions. Drier (2004) calls the problem *creeping minimalism*.

Taking the moral case as our example, Fine's proposed solution is to ask both realist and irrealist 'what *makes it the case* that torturing children is wrong?' – What grounds the proposition <torturing children is wrong> that both realist and irrealist are willing to accept. Fine argues that whilst the realist's answer will involve reference to moral properties, the irrealist takes the proposition to be grounded in something like speaker-attitudes towards child-torture.[11] The key move is that in asking a grounding question, we can adopt a 'metaphysically neutral' stance concerning the reality of the proposition in question – we can

[11] See Fine (2001) for the details of the proposal.

consider grounding questions whether we are realists or irrealists about the relevant discourse, and the language used to frame the question is neutral on the issue of realism in a way that terms like 'really' and 'true' are not. It is this that allows us to escape the problem of creeping minimalism.

This appeal to grounding talk in order to understand what is at stake between realist and irrealist has numerous applications in metaphysics (see e.g. Thompson, in progress c). But this benefit of engagement in grounding talk does not require realism about grounding. Grounding talk merely brings out a distinction that is already present in the commitments of the realist and of the irrealist, but it is a distinction that is hard to get at in other terms (here the analogy with Field's 1980 project is fairly close). The collected benefits of engaging in grounding discourse are justification for our continuing to talk in terms of grounding in spite of the systematic falsity of propositions about grounding.

It is plausible to suppose that as utterance stands to assertion, so acceptance stands to belief (see Kalderon, 2005: 128). Metalinguistic fictionalists and objectual fictionalists hold that *some* proposition is believed when a grounding sentence is accepted; the proposition associated with what is quasi-asserted in an utterance of the relevant sentence (which will have either metalinguistic or objectual content). The non-assertion fictionalist has it that *no* proposition is believed when a grounding sentence is accepted. This might sound like an implausible position, but the non-assertion fictionalist might maintain that there is some non-cognitive affective response associated with acceptance of sentences about grounding. Non-cognitivist approaches to grounding are the topic of the next section.

4. Non-cognitivism

Like the eliminativist, the error theorist, and the fictionalist, non-cognitivists about grounding deny that there are any grounding relations. Unlike the error theorist and the fictionalist about grounding, non-cognitivists also deny that utterances of the target sentences express propositions (i.e. that they have substantial truth conditions). Instead of taking sentences about grounding to express beliefs, non-cognitivists hold that utterances of the relevant sentences conventionally express non-cognitive attitudes. Varieties of non-cognitivism are to be characterised by differences in explicating the semantic function of grounding expressions, and the nature of the mental states expressed by those who utter sentences about grounding. Here I'll discuss three forms of non-cognitivist views about grounding: prescriptivism; expressivism; and quasi-realism (though note combinations of these views are plausible).

4.1. Prescriptivism

One form of non-cognitivism with respect to moral judgements is the prescriptivism usually associated with R.M. Hare (e.g. 1952). Hare holds that moral sentences express universal prescriptions about how to act. The analogue of this view for grounding locutions emphasises the familiar claim made by grounding theorists that grounding locutions are explanatory locutions, and that the relevant explanatory connection (between *explanans* and *explanandum*) is very tight. The prescriptivist about grounding takes statements of (full) ground to be prescriptions to *understand* or to *cease explanatory enquiry*. For example, when we say then that the fact that P grounds the fact that P ∨ Q, we prescribe the end of enquiry concerning P ∨ Q; we dictate that there is no further explanatory work to be done in accounting for P ∨ Q, once we have understood that P.

Support for this view might be extracted from the work of philosophers such as Kit Fine, who draw attention to the explanatory character of ground. Fine (2012: 39) says that it is 'properly implied by the statement of (metaphysical) ground that there is no stricter or fuller account of that in virtue of which the explanandum holds...if there is a gap between the grounds and what is grounded, then it is not an explanatory gap'; and in his (2001: 16) that there is 'no explanatory connection that stands to ground as grounding stands to…other forms of explanation…it is the ultimate form of explanation'. It is the view of such friends of grounding that ground provides the most illuminating explanation; the explanation which, when we are in possession of it, dictates that we have no need for further explanatory inquiry. It is a small step, the prescriptivist claims, from the view that grounding is a relation of metaphysical explanation to the idea that *all there is* to a statement of ground is a prescription that we end explanatory inquiry. In the face of concerns about the legitimacy of any notion of ground that goes beyond this claim about explanation, prescriptivism might look like an attractive alternative to realism about grounding.

Prescriptivism about grounding of the form described here requires that we think of the relevant sort of explanation as something objective enough that it will be the same in relevantly similar contexts –that similarly situated agents would make the same judgements of ground (it is this that guarantees that the prescription be *universal*). It is this fact that is responsible for grounding talk being subject to various constraints, including restrictions on the logical and structural features of ground. Friends of grounding might welcome this apparent legitimisation of the somewhat obscure notion of metaphysical explanation, and the independent role that the grounding prescriptivist takes metaphysical explanation to play. Nevertheless, one might worry that some reasons for suspicion about the notion of ground (particularly those based on concerns about the epistemology of grounding claims) will carry over to any notion of explanation we can think of as objective enough to play the relevant role. Those persuaded by such arguments are likely not to find this sort of prescriptivism about grounding attractive,

though it is worth noting that the vast majority of those engaged in the grounding discourse have no trouble accepting the relevant notion of objective metaphysical explanation.[12]

4.2. Non-cognitive expressivism

Non-cognitive expressivism can be characterised as the conjunction of two theses, one negative and the other positive. The negative thesis states that the vocabulary in question is not 'descriptive, not belief-expressing, not fact-stating, not truth-evaluable, or not cognitive' (Price, 2011: 88). The positive thesis says that the vocabulary expresses a non-cognitive attitude. The task for an expressivist about grounding is to give an account of the non-cognitive attitude expressed when competent speakers utter sentences involving grounding locutions. There are various accounts the grounding expressivist might choose to give of the relevant non-cognitive attitude, and I'll discuss two possibilities here. The first possibility takes the attitude expressed to be one of acceptance of various counterpossible conditionals linked to grounding claims. According to the second view, the attitude expressed is one of acceptance of norms governing particular systems of explanation.

Alastair Wilson (in progress) develops a non-reductive analysis of grounding claims whereby grounding is to be understood in the spirit of interventionist analyses of causation. Interventionists understand causation by appeal to *interventionist counterfactuals* – counterfactuals with antecedents corresponding to interventions on the relevant variables. In the case of grounding these interventions will be on non-contingent variables, and so the counterfactuals generated are *counterpossibles* (conditionals with impossible antecedents). True grounding claims are to be analysed in terms of pairs of counterfactuals, at least one of which will always be a counterpossible. For example, 'the existence of Socrates' singleton is grounded in the existence of Socrates' is to be understood in terms (i) of the truth of the counterfactual 'if Socrates were to exist, then Socrates' singleton would exist' and (ii) of the falsity of the counterpossible counterfactual 'if an intervention had been made to prevent Socrates' singleton from existing, then Socrates wouldn't have existed' (see Wilson, in progress: 10).

The expressivist about grounding can take grounding claims to express a non-cognitive attitude of acceptance towards the relevant conditionals. The proposal differs from Wilson's account in that it does not offer an analysis of grounding (reductive or otherwise) in terms of these conditionals, but rather understands grounding in terms of the speakers' holding the attitude of acceptance itself. The expressivist is not therefore committed to the actual truth or

[12] For some discussion of why such a notion might be considered problematic, see Thompson (in progress a).

falsity of the relevant counterfactuals (and thus to any concrete proposals for understanding conditionals with impossible antecedents).

The proposal rightly predicts that those unwilling to accept the relevant conditionals will be correspondingly unwilling to accept the relevant grounding claim, a point we can bring out with an example. The Euthryphro question asks whether an act is morally good in virtue of it being commanded by the gods, or whether the gods command the act because it is morally good. The question is generally assumed to be a question about grounding (see e.g. Evans, 2012). A divine command theorist will hold that an act's being morally good is grounded in the gods having commanded that it is so, and so we should expect her to accept the following pair of counterfactuals: (i) If the gods were to command the act, then the act would be morally good; and (ii) Had an intervention been made to prevent the gods from commanding the act, then it would not have been morally good. Indeed, these will count as acceptable counterfactuals for any divine command theorist willing to accept counterfactuals with impossible antecedents. Conversely, anybody who rejects the Divine Command theory will fail to accept one or both of (i) and (ii).

A second possibility for the non-cognitive expressivist is to take grounding claims to express attitudes of acceptance towards particular systems of explanation; to say that *x* grounds *y* is to endorse a particular system of explanation in accordance with which *x* explains *y*, and thus to 'plan' to take relevantly similar explanations to be explanatory. The expressivist position here is subtle. The realist about grounding generally takes it to be the case that when *x* grounds *y*, *x* explains *y*, but the realist takes claims of the form '*x* grounds *y*' to be truth-apt, and to be made true by mind-independent features of reality. The expressivist denies both of these realist commitments. The claim '*x* grounds *y*' expresses an attitude (rather than a proposition) and its appropriateness depends on the attitudes of the speaker (i.e. on their endorsement of a system of explanation in accordance with which *x* explains *y*).

This form of expressivism shares some features with the plan-expressivism associated with Gibbard (2003), and also with the prescriptivism about grounding described above. To judge that *x* grounds *y* is to judge that it is apt to find *x* explanatory with respect to *y*. Unlike with the prescriptivism introduced above, the expressivist need not think of the relevant sense of explanation as a particularly objective one (though there is room for positions on which the relevant sense of explanation is an objective one).

One worry about both of the positions described above is a general and familiar criticism of expressivist approaches to any domain of discourse, known as the *embedding problem* (also often referred to as the *Frege-Geach problem*. A challenge to expressivist treatments of

sentences in any domain arises when such sentences are embedded in more complex sentences (Geach, 1965: 463). Consider the following example of a seemingly valid inference:

(1) If (facts about) singleton sets are grounded in (facts about) their members, then (facts about) {Socrates} are grounded in (facts about) Socrates

(2) (Facts about) singleton sets are grounded in (facts about) their members

(3) Therefore, (facts about) {Socrates} are grounded in (facts about) Socrates

On an expressivist treatment, there is no proposition expressed by (2) above, only an attitude. An expressivist about grounding will treat (2) as an expression of (for example) acceptance of a system of explanation whereby (facts about) singleton sets are explained by (facts about) their members. But it looks as though an agent who does not accept such an explanatory system ought nevertheless to be able to assent to (1), and therefore that the embedded grounding claim in the antecedent of the conditional in (1) has a different content to the same claim as it appears unembedded in (2). We don't ordinarily expect statements to have different contents in embedded and unembedded contexts, and moreover, any difference renders the inference invalid.

We will not have much to say here by way of response to embedding problems, as to do so would take us beyond the scope of this paper. I'll briefly mention two influential responses. First, one might adopt a minimalist theory of truth (see e.g. Horwich, 1993; Stoljar, 1993). The idea is roughly that if the truth values of complex sentences involving embedded statements can be shown to be functions of the truth values of the component statements, the minimalist can give minimal truth conditions for the component sentences and thereby give an account of the meaning of the sentence whether asserted or embedded.

A second available response is to posit a 'logic of attitudes', whereby logical relations obtain not between the contents of sentences, but rather between the sentences themselves (explaining the validity of inferences such as that introduced above). One influential version of this strategy for responding to the embedding problem was proposed by Blackburn (e.g. 1984) who posits a logic of higher-order attitudes towards accepting certain attitudes. We can get an idea of what the proposal amounts to by considering a simple application to our above grounding inference. An utterance of the statement in (1) expresses an attitude of acceptance towards a system of explanation in which the following holds: If (facts about) singleton sets are explained by (facts about) their members, then (facts about) Socrates' singleton are explained by (facts about) Socrates. Anyone then asserting (2), and thereby expressing her acceptance of a system of explanation whereby (facts about) singleton sets are explained by (facts about) their members ought then (on pain of inconsistency) to accept the conclusion (which she takes to be

an expression of acceptance of a system of explanation whereby (facts about) singleton sets are explained by (facts about) their members).

4.3. Quasi-realism

Blackburn's proposed response to the embedding problem serves as an introduction to a final form of non-cognitivism that seems a plausible candidate for analysing grounding claims: quasi-realism. The quasi-realist program is one of vindicating the legitimacy of the practice of making judgements in the relevant domain, and thus quasi-realism is a position generally held in conjunction with another irrealist approach. Blackburn's response to the embedding problem is a contribution to the quasi-realist project. In the case of grounding, the project is one of justifying realist-seeming features of grounding talk in the absence of a commitment to realism about grounding. Blackburn (1993: 185) identifies two routes to quasi-realism: the first 'fast-track' route involves securing a notion of truth to regulate attitudinal discourse, and justifying adherence to propositional form in the domain to meet the demands of such a notion. The 'slow-track' alternative demonstrates the applicability of realist-sounding talk to a domain about which we endorse antirealism in a more piecemeal fashion, demonstrating for a number of different speech-acts (e.g. assertions, inferences, interjections) how realist-sounding talk is generated.

A key challenge the quasi-realist must meet is to explain how a truth predicate (for example) can be legitimately applied to what are ultimately just expressions of attitudes. Once this challenge is met, a further difficulty comes in properly distinguishing quasi-realism from genuine realism, given that realists and quasi-realists will assent to the very same sentences (see Dreier, 2004; Fine, 2001)[13]. The precise way in which the truth-predicate is to be secured will depend on the details of the rest of the non-cognitivist proposal, and so we will not discuss it further here. At the least, the combination of an expressivist proposal for grounding claims with a quasi-realist program of securing the trappings of realist discourse offers a promising suggestion for future developments of antirealism about grounding.

5. Cognitive expressivism

A recently developed alternative to the traditional, non-cognitive expressivism earns the title *cognitive expressivism*. They view, which is defended by (amongst others) Timmons (1999), Horgan and Timmons (2006), and Barker (2010; 2012) maintains that there is no deep property marking out a distinction between assertive utterances and non-assertive utterances; there is merely the surface grammar of the relevant sentences. Cognitive expressivists thus deny that anything concerning whether the content of a sentence is descriptive or non-descriptive follows

[13] Recall that Fine (2001) suggests that the distinction can be made by appeal to grounding questions.

from that sentence's making a genuine assertion. Sentences can (contra orthodox expressivism) be genuinely assertive but nevertheless lack descriptive content. Form a minimalist theory of belief it follows that any state of mind expressed by a declarative sentence S will count as a belief that S – beliefs are simply the states expressed by declarative sentences (see Dreier, 2004: 27-8). In a nutshell, cognitive expressivism about grounding is the view that grounding sentences are genuine assertions and that they express beliefs about grounding, but that the relevant assertions are non-descriptive, and the beliefs expressed are not representations.

It is not obvious how much of a departure cognitive expressivism represents from sophisticated versions of seemingly non-cognitive expressivism. In particular, it is hard to see that there is much at stake in any interesting, philosophical sense, since the move to cognitive expressivism can be seen merely as a more thoroughgoing adoption of the minimalism and accommodation that gave rise to more sophisticated versions of earlier expressivist views. It is thus arguably less of a substantive change in metaphysical position, and more of a terminological difference. In any case, it is mentioned here primarily for completeness, and there is not much in the position that makes a particular contribution to the debate about grounding.

6. Subjectivism

Subjectivism in a given domain of discourse is the thesis that the truth conditions for sentences in that domain are mind-dependent. Like non-cognitivists, subjectivists hold that utterances of sentences about grounding conventionally express non-cognitive attitudes. Unlike non-cognitivists, subjectivists maintain that sentences about grounding express propositions that are the subject of belief. Subjectivists about grounding envisage their task not, in contrast with the realist, to be one of discovering the relations that structure metaphysical reality, but rather to be one of imposing a non-compulsory conceptual framework onto a metaphysically undifferentiated reality. Subjectivists thus *do* think that there are grounding relations, but not in the manner of the realist. Subjectivists instead deny the independence dimension of realism, holding that grounding relations are mind-dependent and thus (to some degree) non-objective.

Subjectivists about grounding are committed to holding that grounding claims have mind-dependent truth conditions. Here we are to understand mind-dependence in a fairly liberal manner, so as not to require dependence strictly on mental activity, but on conceptual schemes, linguistic frameworks, conventions, and so on. The central point is that that grounding relations are invented rather than discovered.

A proper defence of subjectivism about grounding is likely to focus on the explanatory role of grounding claims. If we think of explanation as an epistemic phenomenon with an argument place for an agent (as in van Fraassen 1980; see also Thompson, in progress a), then a

subjectivist account of grounding can seem fairly attractive. The idea, roughly, is that agents seek explanations in the context of their particular theoretical commitments and background information, and so different explanations are explanatory for different agents. We can bring this out as applied to grounding by appeal to an example.

Jonathan Schaffer (e.g. 2010) skilfully defends a position he calls *priority monism* – the view that everything is grounded in a single fundamental entity; the entire cosmos. This position is in conflict with the more orthodox *priority pluralism* – the view that the fundamental elements of the world are a plurality of basic entities such as mereological atoms. Suppose then that Schaffer asks somebody what grounds a very simple microphysical entity, and is told that the entity is grounded in the fundamental mereological atoms. Because Schaffer doesn't think that mereological atoms are the bearers of fundamentality, he will reject the explanation he has been offered.

This example serves to highlight a problem facing subjectivists about grounding. Subjectivists have trouble accounting for disagreement about grounding claims, because there is a clear sense in which disputants are simply talking past each other. It is consistent for Schaffer to impose a different framework onto reality than that imposed by the priority pluralist, and for each to be correct in describing their frameworks in the way that they do. We might respond that there is a genuine disagreement to be had about which is the correct framework to adopt, but correctness must be decided on the bases of virtues other than correspondence with reality, since the subjectivist is committed to the view that the truth conditions for grounding relations are mind-dependent.

7. Concluding remarks

The intention here has not been to argue for a specific form of irrealism about grounding, but instead to carve out the terrain in order to pave the way for future discussion. That said, it seems that some version of fictionalism or of expressivism about grounding are likely to prove the most fertile options for the irrealist about grounding. In any case, some forms of irrealist proposals are likely to prove viable alternatives to realism about grounding, and so it is a mistake to assume that all friends of grounding must be realists.[14]

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[14] Thanks to Darragh Byrne, Kirk Surgener, Alastair Wilson, and to audiences at the Universities of Birmingham, Cambridge, and Hamburg.

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