

Tilling Ground: A Critique of Jonathan Schaffer's
Notion of *Metaphysical Grounding*

Table of Contents

Table of Contents	2
Introduction	4
Structure	7
1. A Discussion of the Conceptual History of Grounding: The ‘Status’ and ‘Topic’ of Grounding	9
A History of the Concept of ‘Grounding’	9
‘Status’ and ‘Topic’	15
The ‘Trinity’	18
Kit Fine	19
Jonathan Schaffer	21
Gideon Rosen	22
Discussion	23
2. A Discussion of Schaffer’s Notion of Metaphysical Grounding	29
Aspects of Schaffer’s Notion and Concept of Metaphysical Grounding	30
‘Status’ of Metaphysical Grounding	31
‘Topic’ of Metaphysical Grounding	34
Logical Properties	34
Diagnostics	37
Discussion	38
3. A Discussion of the Graininess of Metaphysical Grounding	44
The ‘No Work’ Claim	46
A ‘Just-So Story’	47
Metaphysical Grounding is ‘Coarse-Grained’	50
Underdetermination	51
The Unifier	55
Discussion	57
4. The New Problems of Metaphysical Grounding	60
The Failure of Two Arguments for Metaphysical Grounding	61
The Unity Argument	62
Problems	65
The Priority Argument	70
Discussion	72
5. A Deflationary Proposal for Metaphysical Grounding	73
The Proposal	74

A ‘Grounding’ Thesis	75
Discussion	78
Concluding Remarks	80
Bibliography	85

Introduction

There are multiple points of contention which dog metaphysical grounding. We can, to begin with, distinguish between two main approaches to metaphysical grounding.¹ Firstly, there is the ‘operator approach’. Secondly, there is the ‘relational approach’. According to the former, metaphysical grounding is a non-truth functional sentential connective.² According to the latter, metaphysical grounding is either a relation between entities of any ontological category, say, properties, individuals, facts; or a relation exclusively between facts, which formalises relations of metaphysical dependence between entities which are fundamental, and those entities which are derived from them.³ On both approaches there are numerous problems which we can broadly divide into applicative and foundational.

Applicative problems are problems which concern the scope of the application of the concept of metaphysical grounding to general philosophical theses and specific philosophical phenomena. Applicative problems concern the search for ‘work’ for metaphysical grounding, and the scope of work that metaphysical grounding can execute, such as, the inclusion of metaphysical grounding within comprehensive philosophical theses and the application of the concept of metaphysical grounding in conjunction with specific philosophical phenomena. Thus, we might ask which philosophical theses and phenomena can be metaphysically grounded. Can metaphysical grounding be incorporated into physicalism? Are phenomena such as ‘*entailment, supervenience, truthmaking, existential dependence, essential dependence, metaphysical explanation, identity, reduction*’ connected to metaphysical grounding? (Raven 2015) Most seem to view metaphysical grounding as somehow importantly related to metaphysical explanation. An important position is found in Schaffer (2012), wherein it is argued that metaphysical grounding is a metaphysical relation which backs, but is not equal to, explanation.

Foundational problems are problems which concern the logical properties of metaphysical grounding, for example, we might wonder what kind of formal features metaphysical grounding has, such as whether metaphysical grounding is a non-analysable

¹ For the sake of clarity I will always refer to ‘grounding’ as ‘metaphysical grounding’, in order to avoid any ambiguities related to the ‘type’ of grounding I am referring to. This is motivated by the fact that there are scholars who distinguish between ‘metaphysical grounding’ and ‘grounding’, c.f. Fine (2012a).

² c.f. Correia (2010); Fine (2001, 2012).

³ c.f. Schaffer (2009) for the former position, and Schaffer (2012) for the latter one.

primitive concept, an analysable non-primitive concept, or whether it is a unitary metaphysical relation. We might also question its logical properties, namely, whether it is asymmetrical, irreflexive, and transitive. There is, however little consensus on foundational problems. Schaffer (2009), for example, has suggested that metaphysical grounding is a strict partial ordering, but then Schaffer (2012) has argued that there are counterexamples to metaphysical grounding being transitive, thus questioning whether metaphysical grounding is a strict partial ordering after all.

Ultimately, many problems are compound problems and are importantly related to both applicative and foundational problems as they contain both an applicative problem and a foundational problem, and an attempt at solving compound problems requires taking a stance on both problem components. So, for example, in order to take a stance on whether metaphysical grounding is somehow related to metaphysical explanation, we would need to take a stance on the logical properties of metaphysical grounding. Since explanation is typically cast to be asymmetrical, as it is viewed as being tightly connected to causation, in order to tease out the connection between metaphysical grounding and explanation it is thought that we would need to show that metaphysical grounding is asymmetrical as well, but as is shown by Rodriguez-Pereyra (2005, 2015) attributing asymmetry to metaphysical grounding is not unproblematic, hence the compound nature of the problem. Another compound problem of metaphysical grounding concerns something as simple as providing a definition of metaphysical grounding because depending on whether we postulate metaphysical grounding as a primitive concept or not, we may be able to either provide a definition of it, or not. Since most metaphysicists who endorse metaphysical grounding seem to believe that metaphysical grounding is a primitive concept, as a result, we can neither analyse metaphysical grounding, nor provide a definition of it. Instead, metaphysical grounding remove is usually introduced by dint of examples which seem to share something in common, that something is then formalised into a set of logical properties, and the end result is cast as metaphysical grounding.

In view of the convoluted nature of the debate about metaphysical grounding I will limit my scope to tracking a single branch within the debate which seems to have the largest area of effect on the discussion of metaphysical grounding. Specifically, I will strictly follow Schaffer (2009, 2010, 2012, 2016a, 2016b, 2017a, 2017b) and present metaphysical grounding as a primitive non-explanatory explanation-backing relation. Given that Schaffer is

venerated as one of the ‘Founding Fathers’ of the concept of metaphysical grounding, and his position has functioned as the baseline for metaphysicists working on metaphysical grounding as per the relational approach, what will be explored in this essay will apply broadly to any position that conceives of metaphysical grounding as a primitive metaphysical relation.⁴ This particular branch of the debate contains an informative back-and-forth between Schaffer (2016a, 2016b) and Wilson (2016), complemented by Koslicki (2015), where Koslicki and Wilson argue that metaphysical grounding is too ‘coarse-grained’ objecting to Schaffer’s claim that metaphysical grounding can do metaphysical ‘work’. I will analyse the back-and-forth between Schaffer and Wilson, in order to show that Schaffer’s account of metaphysical grounding is flawed both in its naive and in its ‘revised’ form. In my discussion of the back-and-forth between Schaffer and Wilson I will discuss Wilson’s objections to attributing logical properties to metaphysical grounding, emphasising her objections towards attributing the property of primitivity.

I will, however, argue that metaphysical grounding can be preserved as a metaphysical relation on a deflationary account which does not attribute any logical properties to it, which is to say, on an account that simply postulates metaphysical grounding as a metaphysical relation without venturing into foundational problems concerning its primitivity, asymmetry, irreflexivity, and transitivity.⁵ I will contrast such an account of metaphysical grounding with an deflationary account of metaphysical grounding which does not rely on ‘clear formal constraints’.⁶ Since Schaffer believes that metaphysical grounding is a metaphysical relation which backs explanation, and explanation *simpliciter* is considered asymmetrical and hyperintensional, in his account he attempts to ascribe the same logical properties to metaphysical grounding as explanation *simpliciter* has. It seems, however, that the position that metaphysical grounding has the same properties as explanation *simpliciter* is a position which introduces, and relies, on too much ‘ideology’ causing it to be vulnerable to criticisms from ‘graininess’, and connectedly, to objections which question its logical properties.⁷ Instead, I will draw on Dasgupta (2017), who advocates a deflationary approach towards metaphysical grounding, to similarly build a case for a deflationary proposal of

⁴ c.f. Raven (*forthcoming*)

⁵ I will emphasise that Schaffer’s account of metaphysical grounding belongs to the ‘the logical basis of metaphysics’, to borrow the term from Dummett’s (1993) pioneering work.

⁶ c.f. Schaffer (2009)

⁷ I am here referring to Sider’s (2011) discussion of ‘ideology’ in the Quinean sense in *Writing the Book of the World*.

metaphysical grounding which does not postulate it as a logical primitive. As such, I will conclude that the burden of proof lies not on the sceptical deflationist, but on Schaffer, to defend metaphysical grounding as an inflated primitive metaphysical relation and to show in what way metaphysical grounding can be defensibly inflated to include logical properties.

Structure

In section one, I will introduce metaphysical grounding by building on Raven (*forthcoming*) and to discuss the relevant historical and conceptual points which result from Raven's claim that there are two 'tales' of 'grounding', a 'tale of discovery' and a 'tale of re-discovery', which can be united by drawing the distinction between the 'status' and 'topic' of 'grounding', where the former is related to applicative problems and the latter to foundational problems. This section will shed light on the historical development of 'grounding', its relation to other concepts in metaphysics, and will bring us closer to an overview of the contemporary 'grounding' scene. Furthermore, I will utilise 'status' and 'topic' as a recurring conceptual crutch to discriminate between points which apply to applicative problems of 'grounding' and foundational problems of 'grounding'.⁸

In section two, I will discuss at length the conceptual points of Schaffer (2009, 2010a and 2012) which will not have been clear in my discussion of Raven's (*forthcoming*) conceptual history of 'grounding', but which will prove relevant as the conceptual basis for further discussion that will be pursued in this essay. In this section, I will expand on the logical properties of 'grounding' which Schaffer (2009) attributes to metaphysical grounding, viz., logical primitivity, asymmetry, irreflexivity, transitivity; and his claim that metaphysical grounding contains 'clear formal constraints' in the form of metaphysical 'diagnostics'. I will also touch on Schaffer's doubts about attributing the logical property of transitivity to metaphysical grounding to pre-shadow objections which will follow in the following section.

In section three, I will discuss objections raised against Schaffer (2009, 2010a, 2012), which I will refer to as Schaffer's 'naive' formulation of metaphysical grounding, by

⁸ Notably, Wilson's objections that 'grounding' cannot do any 'work', can be seen as an applicative objection, which can therefore be equated with an objection about the 'status' of 'grounding'.

Wilson's (2014). In particular, I will discuss two kinds of problems which emerge from their respective objections to metaphysical grounding. Firstly, I will discuss the argument from graininess which establishes that Schaffer's 'naive' account of metaphysical grounding is too 'coarse-grained' to do 'metaphysical work' because it shows that metaphysical grounding does not enrich the metaphysicist's toolkit. These objections can be viewed as applicative problems for metaphysical grounding and will fall under the umbrella of objections of the 'status' of metaphysical grounding. Secondly, I will also discuss Wilson's objections against attributing the kind of logical properties Schaffer endorses to metaphysical grounding, particularly the logical property of primitivity. These objections can be viewed as foundational problems for metaphysical grounding and will fall under the umbrella of objections about the 'topic' of metaphysical grounding.

In section four, I will discuss Schaffer's (2015, 2016a) 'revised' position that takes Wilson's 'lessons' into account by incorporating the template of structural equation models for the purpose of formulating a logically, and thus foundationally, more robust account of metaphysical grounding by drawing from new objections by Wilson (2016a) and Koslicki (2016) which illustrate that the attempts at further formalisation of metaphysical grounding by Schaffer do not 'work' because they do not redress previous objections that have been made by Wilson (2014) on metaphysical grounding.

In section five, I will consider whether there is a different strategy that Schaffer could utilise in order to respond to Wilson's (2014, 2016a) objections which does not rely on the attempt to include more formalism in the concept of metaphysical grounding. I will draw from Dasgupta (2017) to show that 'grounding' can be postulated in a deflationary way which crucially relies on a different notion of primitivity than Schaffer's concept of metaphysical grounding, thus leaving room for a possibility of re-engineering the concept of metaphysical grounding in terms of a different variety of primitivity.

Finally, in section six, I will take stock and bring together the main points which I have made in this essay on the basis of which I will conclude that the burden of proof lies on Schaffer and his notion of metaphysical grounding, rather than on the sceptic about metaphysical grounding.

1. A Discussion of the Conceptual History of *Grounding*: The ‘Status’ and ‘Topic’ of *Grounding*

In this section I will draw on ideas proposed in Raven (*forthcoming*). I will discuss his conceptual history of metaphysical grounding in which he develops the distinction between questions of ‘status’ and questions about the ‘topic’ of ‘grounding’ for the purpose of discussing applicative problems and foundational problems for metaphysical grounding in the following sections. The process of developing his distinction between ‘status’ and ‘topic’ will familiarise us with the concept of metaphysical grounding and the difference between metaphysical grounding and ‘grounding’ *simpliciter*, by discussing its conceptual background and combining those conceptual elements into a historical record. This will clarify the difference between the concepts of ‘grounding’ encountered in various philosophers throughout the history of philosophy and the debate in contemporary Anglo-Saxon literature on metaphysical grounding, and historical connection between the two. Firstly, I will work through Raven’s notion of ‘grounding’. Secondly, I will work through Raven’s distinction between two tales of ‘grounding’ encountered in the contemporary literature on Anglo-Saxon philosophy: the tale of ‘discovery’ and the tale of ‘re-discovery’. These two tales concern the notion that ‘grounding’ emerged in Anglo-Saxon literature only in the past two decades and the notion that ‘grounding’ is a historical concept which has been discussed by philosophers at length. In the process of unifying these two tales I will borrow from Raven the crucial distinction between the ‘status’ and the ‘topic’ of ‘grounding’, which roughly concern applicative problems and foundational problems respectively. I will conclude this section with a discussion of Raven’s ideas and a summary of the notions which I intend to take with me throughout this essay.

A History of the Concept of ‘Grounding’

Raven (*forthcoming*) contends that many philosophical questions are questions of determination, or as I will refer to them, determinative questions, and ‘grounding’ is a ‘quasi-technical term’ which has been developed in order to answer determinative questions.

We can view determinative questions as the project of determining ‘in virtue of what’ a given phenomenon *P* obtains. This is accomplished either by determining that a given phenomenon *P* obtains in virtue of some ‘ground’ *G*, or by determining that phenomenon *P* does not obtain in virtue of any ‘ground’ and is therefore ‘ungrounded’. On such an approach ‘grounding’ is the notion which answers determinative questions by indicating in virtue of what a given phenomenon *P* obtains.⁹ ‘Grounding’ *simpliciter* and its specific variation discussed in this essay, viz., metaphysical grounding, is usually introduced by dint of examples because many metaphysicists believe that both ‘grounding’ and metaphysical grounding are logical primitives and as such cannot be defined.¹⁰ In this regard Raven keeps in line with the consensus and introduces ‘grounding’ with a number of examples which he believes are indicative of ‘grounding’. Given that Raven’s examples are fairly typical for any introduction to both ‘grounding’ and metaphysical grounding, and that I will return to these examples in my discussion of Raven’s record of the history of ‘grounding’, it will be useful to list them as he does. They are:

- i. *Is art’s value determined by the context of creation or appreciation?*
- ii. *Is power and authority determined by consent or coercion?*
- iii. *Is one’s personhood determined by one’s psychology?*
- iv. *Is gender or race determined by biology or social forces?*
- v. *Are arithmetical facts determined by set-theoretic facts?*
- vi. *Are a thing’s dispositions determined by its categorical features?*
- vii. *Does an action’s outcome determine whether it is right to do it?*
- viii. *Are laws determined by the social context in which they prevail?*
- ix. *Is a term’s meaning determined by its non-semantic features?*

These examples, Raven claims, are all cases of determinative questions and thus are all questions of ‘grounding’ as they ask in virtue of what a phenomenon is determined by another phenomenon, viz., its ‘grounds’. What separates ‘grounding’ from other concepts in inter-level metaphysics is that the kind of determination at stake in ‘grounding’ claims is

⁹ As Schaffer would put it, ‘grounding’ relations are indicated by determining what is grounded by what.

¹⁰ Thus, the way in which I have described ‘grounding’ does not count as a definition because it supposedly indicates the way ‘grounding’ functions, rather than what it is.

considered to provide something in the way of explanation, and metaphysical explanation in particular.¹¹ It is thought that ‘grounding’ is either equivalent to, or to back explanation, and, by answering, in virtue of what a phenomenon is determined by another phenomenon, something about the ‘grounded’ phenomenon is explained through the phenomenon that ‘grounds’ it.¹² In this way, ‘grounding’ functions as an explanatory concept which does not simply metaphysically link two phenomena to each-other but it also functions as a concept which through the kind of determination it establishes provides new information which was hitherto the ‘grounding’ link unavailable.¹³ In his explanation Raven draws attention to the remarkable fact that despite the proximity between ‘grounding’ and (metaphysical) explanation, and between explanation and causality, the metaphysical link established by ‘grounding’ can, but does not have to, be viewed as a causal link.¹⁴ This can be done in one of two ways depending on whether we assume ‘grounding’ is an explanatory link or whether it backs explanation. ‘Grounding’ *qua* explanatory link can be differentiated from other types of explanation, e.g., causal explanation, as it can be argued that ‘grounding’ is a form of metaphysical explanation which metaphysically determines the ‘ground’ of phenomena without reference to physicalist notions such as causal closure, thus representing a kind of metaphysical explanation, which in some way connects the *explanans* to the *explanandum* by ‘grounding’ the former in the latter.¹⁵ ‘Grounding’ *qua* explanation-backing link can be differentiated from other explanation-backing links to function as a specifically metaphysical worldly determination which in some way tracks what explanations correspond to, thus providing the foundation, as it were, for cases of non-causal explanations in particular.

Raven believes that questions of ‘ground’ have been an integral part of the philosophical enterprise and wield significant philosophical currency in virtue of being constitutive of the philosophical enterprise from the inception of philosophy. In Raven (*forthcoming*) he limits his scope and develops a historical record of metaphysical grounding for the Anglo-Saxon tradition from 1945 and onwards, owing to what he views as the peculiar nature of the contemporary Anglo-Saxon literature on ‘grounding’ and its lack of

¹¹ c.f. Fine (2012a), Audi (2012).

¹² c.f. Schaffer (2012).

¹³ I will for the time being refer to ‘grounding’ determinations as links, so as to remain neutral on whether ‘grounding’ is a *relation* or a *non-truth functional connective*.

¹⁴ Whether it does or does will depend on what one takes *explanation* to mean, c.f. Fine (2001), Dasgupta (2014a), Litland (2013), Rodriguez-Pereyra (2005), Schaffer (2012), Wilson (2014).

¹⁵ c.f. Fine (2012a).

inclusion of historical trends in philosophy since 1945. There has been a surge of interest in the concept of ‘ground’ since the dawn of the new millennium; but as philosophers have begun to question the origins of the concept of ‘grounding’ two distinct narratives have emerged in the scholarship on ‘grounding’, and consequently, on the specific form of ‘grounding’, metaphysical grounding, which is explored in this essay.¹⁶ Raven draws the distinction between two different proposals for a history of ‘grounding’. On the one hand, there is a tale of ‘discovery’. On the other hand, there is a tale of re-discovery.

According to the tale of ‘discovery’, the surge of interest in ‘ground’ can be attributed directly to the ‘Trinity’ of seminal papers on ‘grounding’, viz., Fine (2001), Schaffer (2009) and Rosen (2010). It follows from this tale that the concept of ‘grounding’ is a concept which was only recently devised by the ‘Trinity’ and that it had no precedent in the history of philosophy before them. According to the tale of ‘re-discovery’, ‘grounding’ is a concept which has always been present in the history of philosophy, but had fallen out of favour and only re-emerged after 1945. These two tales *prima facie* seem to contradict each-other, and the upshot of Raven’s argument will be to reconcile them with each-other.

Although Raven limits his discussion of the tale of ‘re-discovery’ to the period after 1945 he briefly sketches the historical backdrop to this tale. He claims in Raven (*forthcoming*) that determinative questions can be found already in the works of Plato and Aristotle, but it is only truly in Bolzano (1837) that we find the first sophisticated work on *Abfolge* [‘ground’], which anticipates many features of contemporary discussions about ‘grounding’.¹⁷ Furthermore, Raven claims that in Husserl (2001), Russell (1918), and Wittgenstein (1921), we find examples of ‘ground-like’ concepts. Afterwards, however, interest in ‘grounding’ in the philosophical community waned under the influence of logical positivism and the anti-metaphysical slant which developed from the discussion of the Vienna Circle. Raven claims that determinative questions were either ‘dismissed’ or they were otherwise ‘sanitised’ by being transformed into logical problems, linguistic problems, or problems of conceptual analysis. Questions of determination were thus treated with disdain until 1945, whereafter philosophers such as Armstrong, Kripke, and Lewis contributed to re-igniting the interest in questions of determination, thus dispersing the anti-metaphysical

¹⁶ c.f. Bliss & Trogon (2014), Clark & Liggins (2012), Correia & Schnieder (2012), Raven (2015), and Trogon (2013).

¹⁷ c.f. Tatzel (2002).

sentiments which had become the *status quo* thitherto, by introducing novel metaphysical concepts such as supervenience, modality, or truthmaking; contributing to resurgence of interest in determinative questions.¹⁸

Unfortunately, similarly to how logical positivists were suspicious of phenomena which were not directly reducible to analyticity, Raven claims that metaphysicists, for a significant part of the 20th century, were suspicious of any form of determination which was not directly reducible to any of the more respectable metaphysical concepts such as supervenience and truthmaking which had acquired philosophical currency in virtue of being more familiar. Thus, Raven claims that there is a correlation between how the concepts of apriority, analyticity and necessity were philosophically ‘entangled’ before the work of Saul Kripke; and how supervenience, truthmaking, and ‘ground’ were entangled concepts until the ‘Trinity’. A few words are in order to explain this claim.

We may follow Raven (*forthcoming*) in postulating supervenience as a concept which denotes necessary covariation, with the caveat that this is a simplified definition utilised for the purpose of indicating the development of the concept without getting too distracted with the conceptual nuts and bolts of the concept itself. Allowing such a definition, we can make the further claim, as we find in Raven (*forthcoming*), that ‘a property supervenes on another property just in case there can be no difference in which things have the former without a difference in which things have the latter.’ It was hoped by metaphysicists that supervenience would be a concept which is strong enough to be capable of explaining general philosophical theses, such as physicalism, and local philosophical phenomena, such as *qualia*. Interest in the concept of supervenience throughout the 20th century spawned a significant amount of philosophical literature and led the notion to become a conventional and well-established concept.

A problem, however, appeared. Both general metaphysical theses and local philosophical phenomena were presumed to provide something, and rely somehow on something, in the way of explanation, for example, in the way in which according to physicalism all features of the mental realm are features of the physical realm, and therefore all features of the mental realm can be explained by reference to the features of the physical realm, encapsulating all mental phenomena within the bounds of causal closure. Unfortunately, the concept supervenience was shown by Kim (1973) to be notoriously

¹⁸ c.f. Armstrong (1997), Kripke (1972), Lewis (1999).

inadequate in this respect. It was argued by Kim that supervenience does not provide anything in the way of explanation, because, to put it simply, the covariation of properties does not seem provide anything in the way of explanation. Supervenience merely establishes there is determinative non-explanatory connection between one property, and another property. If we assume that the mental realm supervenes on the bodily realm, by denoting which physical properties of the body result in a difference in the mental realm, neither the properties of the mental realm, nor of the bodily realm are explained in any meaningful way.

¹⁹ If we had to turn this into a slogan, we could say that covariation does not imply explanation.²⁰

Truthmaking is another concept related to determination that has evolved and meanwhile affected ‘grounding’. In Raven (*forthcoming*) we find the following rough definition of the notion truthmaking stating that it is ‘the relation between a true representation and those things the existence of which makes that representation true.’ Similarly to supervenience the concept of truthmaking was devised to be a concept which would provide something in the way of explanation. In the course of the development of the concept of truthmaking it became clear that the concept on its own was not sufficient for the purposes of supporting explanation and thus attempts were made to include the notion of ‘grounding’. It became apparent that the explanatory aspect of the concept of truthmaking relies on ‘grounding’ because the notion was built to ‘to give an ontological account of a representation’s truth by citing those entities the existence of which necessitate the representation’s truth.’ (Raven *forthcoming*) In this vein, Schaffer (2010) has argued that metaphysical grounding is the only ‘truthmaker’ by claiming that the concept of truthmaking involves a relation between true propositions and fundamental entities; and that there is only one fundamental entity in the universe. Schaffer hoped that conceptualising metaphysical grounding as a ‘truthmaker’ would solve the problem of negative existentials while providing an ‘elegant’ account of the concept of truthmaking. This position, however, seems to have fallen out of favour and has been resisted and in the contemporary Anglo-Saxon literature.²¹

¹⁹ c.f. Kim (1993)

²⁰ Incidentally, we can view such a slogan as representing the way in the concept of supervenience has been understood by the ‘Trinity’ because their desire to introduce ‘grounding’ is propelled by the lack of explanatory power of supervenience. In their discussions of ‘grounding’ reference is inevitably made to supervenience, and one of the main distinctions that each of them draws between ‘grounding’ and supervenience, is that ‘grounding’ is in some way connected to explanation, whilst supervenience is not.

²¹ c.f. Fine (2012b) for an example of an objection to this position.

Currently, it is believed that ‘grounding’ and metaphysical grounding concern a broader area of effect than only the truth of representations. Thus, even if there is a link between the concepts of ‘grounding’ and truthmaking, it has become relatively uncontroversial to view the concept of ‘grounding’ and metaphysical grounding as being applicable to a broader range of problems, and concerning a larger scope of phenomena, than merely functioning as a ‘truthmaker’.

As such, Raven concludes, ‘grounding’ and metaphysical grounding, have come to be ‘disentangled’ from other determinative concepts such as supervenience and truthmaking. In the case of the former it became apparent that the concept of supervenience was inadequate to provide something in the way of explanation. In the case of the latter it has become apparent that ‘grounding’ is more than just the notion of truthmaking.

‘Status’ and ‘Topic’

This brings us to the second distinction that Raven makes, namely, between ‘status’ and ‘topic’, which is related to the way in which supervenience, truthmaking and ‘ground’, have become ‘disentangled’ from each-other.²² Raven claims that there are at least two ways in which a question can relate to a concept. On the one hand, questions can be ‘of’ a concept. On the other hand, questions can be ‘about’ a concept. Whereas, in the former case, we are posing a question about the status of a concept, for example, its range of application, in the latter case we are posing a question about the concept itself, for example, its properties. Raven claims that this distinction between ‘status’ and ‘topic’ can be applied to the determinative questions (i-ix) cited above. Questions, such as those cited above, are determinative questions, but they are not questions about determination itself, which is to say they have determination as their ‘status’, but not as their ‘topic’. Questions which have determination as their ‘topic’ are questions which are about the properties of determination *per se*, for example, such as whether determination is related to explanation, or whether determination has the logical property of being transitive. According to Raven, such questions do not have determination as their ‘status’ but as their ‘topic’. Naturally, there are questions which blur the dichotomy between ‘status’ and ‘topic’ because there are questions

²² Raven takes over this distinction from Fine (2007).

which have a concept both as their ‘status’ and their ‘topic’, for example, it is possible to wonder whether determination is determinative. Such a question poses determination as the ‘status’ of the question because it queries the application of determination to determinative questions, but simultaneously, it poses determination as the ‘topic’ of the question because it queries the kind of properties that determination has.

Raven is wary of anachronism by projecting the distinction between ‘status’ and ‘topic’ into philosophical debates which were conducted in a philosophical environment paradigmatically unrelated to such distinctions. Nevertheless, he believes, there is also something illuminating about applying such distinctions where applicable. A case in point are the logical positivists, where Raven compares the scepticism of logical positivists towards metaphysical modality to the current scepticism towards ‘grounding’. Raven claims that since the logical positivists attempted to reduce apriority and necessity into analyticity, they became insensitive to concepts which did not follow such straightforward reduction. As a result of the tenets of their project they did not recognise the ‘topic’ of metaphysical modality as legitimate questions, and in turn, neither did they view questions about the ‘status’ of metaphysical modality as interesting either. Similarly, Raven claims, in the conceptual playfield of the Anglo-Saxon philosophy, questions of determination have traditionally been viewed as questions of supervenience and truthmaking, and thus ‘grounding’ as both a ‘topic’ about and ‘status’ of determination has suffered from scepticism because it seems to contain something over-and-above concepts which have acquired philosophical currency within the current paradigm.

In the distinction between ‘status’ and ‘topic’, however, Raven sees the road to uniting the tale of ‘re-discovery’ and ‘discovery’. On the one hand, it denotes the presence of questions of the ‘status’ of ‘ground’ since the inception of philosophy. On the other hand, it denotes questions about the ‘topic’ of ‘ground’. This distinction allows us to separate questions of the ‘status’ of ‘grounding’ from questions about the ‘topic’ of ‘grounding’. As a result we can view the vicissitudes of the ‘topic’ about ‘grounding’, in the form of resistance to ‘grounding’ in the 20th century, separately from the range of determinative questions of the ‘status’ of ‘grounding’.

With the distinction between ‘status’ and ‘topic’ in hand, we can present ‘grounding’ as a concept which has been present in philosophical enterprise, and in that sense, which wields significant philosophical currency, but we can also specify the way in which it

appeared in the philosophical tradition. ‘Grounding’ did not explicitly appear as the ‘topic’ about determinative questions until relatively recently in the history of philosophy, but it did appear in the form of determinative questions of the ‘status’ of ‘ground’. It is only with the ‘Trinity’ that ‘grounding’ as a ‘topic’ about determination established itself in metaphysics, and it is in this sense that the tale of ‘re-discovery’ and ‘discovery’ are bridged. ‘Grounding’ was always, in a sense, part of the philosophical tradition, *qua* ‘status’, but it is only recently become a part of the philosophical tradition *qua* ‘topic’. Thus, in a sense, ‘grounding’ was both present in the philosophical tradition, and it was discovered, as there have always been determinative questions of the ‘status’ of ‘grounding’, but it is only just recently that questions about the ‘topic’ of ‘grounding’ have emerged as well.

Raven is quick to point out that in bridging the gap between ‘re-discovery’ and ‘discovery’, through a teasing out of ‘disentanglement’, ‘status’ and ‘topic’, his purpose is not to prove that there were no philosophers in the 20th century that had worked with notions or on concepts which that either were ‘ground’, or were in some sense similar to ‘ground’. ‘Grounding’ did not emerge out of a conceptual vacuum. Rather, the ‘status’ of ‘ground’ wields philosophical currency in virtue of its presence throughout the the history of philosophy, and, more importantly, we can identify various precursors to the ‘topic’ about ‘grounding’. Raven divides the precursors roughly, into five categories, which we can synthesise as follows. Firstly, borrowing from Berker (*forthcoming*), Ravens claims that many questions about normativity seem to be questions of the ‘status’ of ‘ground’. Secondly, in the literature on supervenience, especially in the 1980s, the element of explanation seemed to be unsatisfactorily accounted for, and thus the desire for such an account of explanation, which would build on the inadequacies of supervenience, can be viewed as a call for a theory of ‘ground’ which would explain the covariation of properties indicated by supervenience. Thirdly, Raven points that Lowe (1998) developed an explanatory concept similar to ‘grounding’, and even though Lowe himself discontinued work on the concept, the proposal was picked up by other philosophers. Fourthly, there also are strong parallels to be drawn between truthmaking and ‘grounding’, even though the position that ‘ground’ is a truthmaker has largely fallen out of favour.

There are also concepts which have developed in parallel to ‘grounding’ of which Raven points to Sider’s (2011) concept of ‘structure’ as being the most important one. ‘Structure’ is a concept which in Sider represents a further development of Lewis’ concept of

‘naturalness’ as it is essentially an extension of Lewis’ ‘naturalness’, from Lewis’ more limited stance that ‘naturalness’ concerns predicates, to Sider’s more permissive stance that ‘structure’ applies to any linguistic category. Sider believes in the objective structure of reality, and in Sider (2011) he argues that the purpose of metaphysics is to ‘carve at the joints’ through determining which structural linguistic categories reality has. Raven draws the analogy between Sider’s earlier work concerning the ‘status’ of ‘structure’, and the transition he made to concerning himself with the ‘topic’ about ‘structure’. Although both Sider and the ‘Trinity’ believe that the metaphysicist requires new tools in his metaphysical toolkit which do the kind of work of the ‘status’ attributable to ‘structure’ and ‘ground’, what is simultaneously becoming increasingly clear is that there may be more concepts which warrant introduction into the metaphysicist’s toolkit. Similarly to how ‘ground’ has differentiated itself from supervenience and truthmaking, so Raven claims, ‘structure’ and ‘grounding’ appear to be differentiable from each-other, even though initially, and especially in Sider (2011) the concepts seemed to be competing with each-other.

The concepts and the philosophers that have been brought up here are but a selective choice from a whole slew of options, and Raven acknowledges as much, but nevertheless, they do show the variegated, and philosophically rich background, which has accompanied the development of the concept of ‘ground’, and which has ultimately culminated in the work of the ‘Trinity’. Though it is arguably only since the ‘Trinity’ that work about the ‘topic’ of ‘grounding’ has explicitly emerged, in the various forms and ways which metaphysics and metaphysicists have approached a diverse set of questions of the ‘status’ of ‘ground’ we have arrived at the point where not only have new concepts started to emerge alongside ‘grounding’, but ‘grounding’ itself has become a respectable ‘topic’.

The ‘Trinity’

The ‘Trinity’ of philosophers that jump-started the adoption of ‘grounding’ into contemporary metaphysical literature are Fine, Schaffer and Rosen. With their publications they contributed to the ‘discovery’ of ‘grounding’ in the sense that their work about ‘grounding’ as a ‘topic’ shone light on ‘grounding’ as concept which had been thitherto been implicit in philosophical enterprise connected to determinative questions of the ‘status’ of

‘grounding’. In this subsection I will summarise some of the main points Raven makes about the ‘Trinity’ to flesh out the tale of ‘discovery’. This will bring us closer to understanding the main positions in the debates about ‘grounding’, and will allow us to discern the difference between ‘grounding’ and metaphysical grounding in the discussion that will follow.

Kit Fine

Fine (2001) sets out, in his own words, to ‘help lay the conceptual and methodological foundations for the study of realism’, which leads him to two principal conclusions. Firstly, Fine claims that there is such a thing as ‘reality’, and that it is possible to conceive of reality as a primitive metaphysical concept, which is fundamental insofar as it cannot be reduced to any other concepts, or as he would put it, reality cannot be understood in any fundamentally different terms. Secondly, we can ask ourselves which things are real, and such questions, Fine suggests, can be dealt with by utilising the concept of ‘ground’. In Raven’s reading of Fine (2001), the latter is, to put it simply, an attempt to establish what it means to be a realist about a given domain, which is a notoriously obscure question according to Raven, and one which Fine claims cannot be characterised using other concepts such as supervenience or truthmaking, but instead can be characterised in terms of ‘grounding’ because questions of realism concern questions of factuality, and for a proposition to be factual it has to be ‘grounded’ in reality.

On the tale of ‘discovery’, Raven claims that Fine was the first philosopher to use ‘grounding’ as a ‘quasi-technical’ concept which, through its ‘topic’, as a factor which connects factuality to realism, was shown to be a concept which categorises questions of realism as questions of the ‘status’ of ‘grounding’. Thus, Raven concludes, by utilising the concept of ‘ground’ in such a way, Fine was the first philosopher to turn attention to ‘grounding’ as a topic, and in that sense, can be viewed as the precursor of a number of debates about ‘grounding’, of which a few will be briefly mentioned.

Firstly, owing to Fine, the correct way in which ‘grounding’ propositions ought to be expressed, that is to say, whether ‘grounding’ is a sentential operator as in Fine (2001), or whether it is a relational as in Schaffer (2009) and Rosen (2010). Fine suggested ‘grounding’ as a sentential operator to the more technical question relating to whether ‘grounding’ is a

relation, or not, which is a marked difference from the other two members of the 'Trinity'. This early suggestion has led to the current debate between conceiving of 'ground' as a relation, or a relational predicate.

Secondly, in Fine (2001), Fine draws the distinction between 'factive' and 'non-factive' 'ground', where the question is whether both the 'ground' and the object of 'grounding' in virtue of being factive will obtain, or whether both the 'ground' and the object of 'grounding' in virtue of being non-factive do not both obtain. Raven points out that it has been debated whether the a non-factive 'ground' is consistent, and assuming that it is, which of the factive or non-factive version of 'ground' is primary.

Thirdly, in Fine (2001) it is suggested that 'ground' is an explanatory connection, but, Raven claims, this has been debated. Notably, followers of Fine claim that 'grounding' and explanation are unified, which is just to say that 'grounding' is some kind of explanation. Critics of unification prefer to separate 'grounding' from explanation, claiming instead that 'grounding' somehow 'backs' explanation, rather than is equal to it.

Fourthly, Fine (2001) has also set up the debate about the relationship between 'grounding' and necessity, as he conceives of the connection between 'ground' and 'grounded' as necessary. However, this has become debated, as there are voices which oppose taking 'grounding' as necessary, and instead suggest that it is a contingent connection, or relation. According to Raven, though, the *status quo* is such that 'grounding' establishes a necessary connection, or relation.

Fifthly, Fine also gave rise to the debate concerning the relationship between 'grounding' and logic. In Fine (2001), Fine argues that a true disjunction will necessarily be 'grounded' in true disjuncts, and similarly, true conjunctions will necessarily be 'grounded' in true conjuncts. A few have taken to this proposition and have developed it further, Rosen of which is the most important, taking his honorary place as one of the 'Trinity'. Ultimately, debate about the relationship between 'ground' and logic has led to the rise of what is referred to as the 'pure' logic of 'ground', and the 'impure' logic of 'ground', where the former concerns the logical properties of 'ground', such as its form, and the latter is purely concerning with the structural principles of 'ground', and is not concerned with the specific logical properties of the 'ground' or what is 'grounded' in a 'grounding' connection, or relation. So much for the important takeaways from Fine (2001).

In the 1990s and 2000s, Raven points out, that ‘*metametaphysical* questions about metaphysics’ rose to prominence.²³ Raven presumes that the rise of such questions is related to previous work that had been done by philosophers such as Quine and Lewis on ontology, and specifically their emphasis on various issues including the legitimacy of ontological questions, where metaphysics in their optic, according to Raven, amounted to dealing with such questions. Supporting this claim are the contents of the book in which the last of the ‘Trinity’, viz., Schaffer (2009) was published because the contents of Chalmers, Manley, & Wasserman’s (2009) were all concerned with ‘*metaontology* in one way or another’. (Raven *forthcoming*) In Schaffer (2009), Schaffer is thus reacting against, what he views, as the dominating paradigm in metaphysics, which is that metaphysics is only to be concerned with what there is, and instead to replace it with the neo-Aristotelian position that metaphysics is about ‘ground’, and, specifically, about the metaphysical question phrased as ‘what grounds what’. Schaffer’s reconceptualisation of metaphysics is metaphysics complemented with his permissivism about ontology, where he views the existence of existants as trivial, because he believes that what is more important are the formalisms of metaphysical grounding which underlie it. In Schaffer (2009), Schaffer endorses monism, and thus he views all ontological objects as deriving from a single ontological object, and that derivation occurs in virtue of the relation of metaphysical grounding, or put differently, all things which are, are because they are metaphysically related to more fundamental things, and they are related through the relation of metaphysical grounding.

The consequences of Schaffer’s reconceptualisation of metaphysics as a binary question querying the *relata* of metaphysical grounding relations, as in, what is metaphysically grounded in what, has the upshot of, returning to Raven’s distinction between ‘status’ and ‘topic’, to answer what is metaphysically grounded in what, we are posing a question of the ‘status’ of metaphysical grounding, but in order to answer said question, we need to reflect about metaphysical grounding as a ‘topic’. As a ‘topic’ metaphysical grounding, in Schaffer’s view, has been around since the inception of philosophy, thus he, too, views metaphysical grounding being somehow constitutive of the philosophical tradition,

²³ Raven’s stress.

and in that sense, he also believes that the concepts wield significant philosophical currency. Thus, Schaffer should be viewed in the scope of what he purviews as the essential feature of metaphysics, viz., metaphysical grounding, and what he views as the misdirection which metaphysics has suffered from, especially as a result of the focus of 20th century metaphysics with ontology, and questions pertaining thereto. Wielding metaphysical grounding as a ‘topic’, Schaffer in Schaffer (2009) explored a number of different issues, including, but not limited to, fundamentality and existents which Raven indicates as having had a lasting impact on debates about metaphysical grounding.

Gideon Rosen

Rosen (2010) is the final seminal paper from the ‘Trinity’ discussed by Raven. Rosen sets the tone of his essay by making a plea for ‘ideological tolerance’. Specifically, he claims that in the history of metaphysics there is a tendency to be discerned, which is based on the tendency of metaphysicists to use ‘bad vocabulary’, but that in reacting to this tendency metaphysicists have become too linguistically discriminatory so as to hinder the inclusion of new terminology, especially such terminology which *prima facie* seems to be ‘obscure’. In this vein, Rosen claims, metaphysicists have been too ‘fussy’ with ‘idioms’ connected to metaphysical determination, and specifically with regards to determination idioms that relate to ‘grounding’. This has resulted in metaphysicists becoming hesitant to tackle questions of metaphysical determination pertaining to ‘grounding’ and has resulted in metaphysicists attempting to recast such questions in terms of other concepts. This point is picked up by Raven when he claims that philosophers have had a tendency to try to reduce determinative questions which relate to ‘ground’ to other more respectable concepts, such as truthmaking or supervenience, and this tendency can be found even more explicitly in the tendency of logical positivists to try to reduce questions of determination into logical problems. Thus, in Rosen (2010), Rosen sets out to lay out the ‘principles’ which he believes ‘govern’ ‘grounding’, and the way in which it ‘interacts’ with other concepts, and in doing so, he claims to have shown that ‘grounding’ is not an obscure word but an ‘intelligible’ concept which can be utilised to deal with determinative questions. In this way Raven reads Rosen’s project consequently as

an attempt to diffuse scepticism about ‘grounding, with regards to questions of the ‘status’ of ‘grounding’, while investigating and formalising ‘grounding’ as a ‘topic’.

Similarly to Schaffer, and unlike Fine, Rosen believes ‘grounding’ is a relation, but while both Schaffer and Rosen claim the *relata* of ‘grounding’ relations are ‘facts’, the former endorses permissiveness about facts, claiming that they can be of any kind of category, while the latter is more restrictive. In Rosen (2010) it is claimed that ‘facts are structured entities built up from worldly items—objects, relations, connectives, quantifiers, etc.—in roughly the sense in which sentences are built up from words.’ As Ravens point out, Rosen’s position is controversial, and it has precipitated the debate about the graininess of ‘grounding’ relations, which is to say, how fine-grained or coarse-grained the *relata*, viz., facts, of ‘grounding’ relations are. Rosen believes that ‘grounding’ is fine-grained, and so does Fine, but as Raven points out, there have been dissenters who claim otherwise.²⁴ Of course, if one takes the *relata* of ‘grounding’ to be something other than facts, the question will be how grainy those *relata* are, unlike how the questions of grainy ‘facts’ are, as in the case of Rosen and Fine.²⁵ According to Rosen there is a relation between the obtaining of a ‘grounding’ relation, and that relation itself being ‘grounded’ in a specific fact which belongs to the essence of the fact which is ‘grounded’, or, to put it differently, facts are ‘grounded’ because there is something in their essence which lends itself to being ‘grounded’. Raven claims that this has emerged as a ‘thorny’ issue in the literature on ‘grounding’, and in Raven (*forthcoming*) can be summarised as the question ‘of what (if anything) grounds the facts about what grounds what’, as we will find out is an area of attack which Wilson will utilise in order to show that metaphysical grounding is too coarse-grained.

Discussion

A discussion of the historical background of metaphysical grounding can proceed in different ways. We can dehistoricise the concept of metaphysical grounding by viewing it purely in conceptual terms as the way it has entrenched itself in contemporary debates within inter-level metaphysics by extrapolating the logical form (‘topic’) and kind of ‘work’

²⁴ Notably, Wilson and Koslicki.

²⁵ An aspect of Rosen (2010) that has been particularly influential is Rosen’s discussion of the relation between ‘ground’ and essence.

(‘status’) for metaphysical grounding that Fine (2001), Schaffer (2009), and Rosen (2010), as the ‘Founding Fathers’ of metaphysical grounding, have suggested for the concept of metaphysical grounding, constructing a discussion of the concept of metaphysical grounding in terms of their ideas, and consequently, the dialectical influence their ideas have had on inter-level metaphysics. With this approach, the concept of metaphysical grounding is treated as a wholly novel concept and the past two decades of work on metaphysical grounding form an organic whole even if the positions are internally heterogeneous. We can, however, also claim that the concept of metaphysical grounding did not emerge out of a conceptual vacuum, but rather that there is a rich tradition which backs the concept of metaphysical grounding, and thus, it is not a novel concept but one which commands significant philosophical currency as it has been grappled with since the dawn of philosophy, even if metaphysical grounding has only recently coalesced into the concept in its contemporary form.

For our purposes what is most relevant is that Schaffer’s account of metaphysical grounding emerges from a specific interpretation of the history of metaphysics, centred on a specific reading of Aristotelian metaphysics and 20th century metaphysics, especially with regards to the debate between Quine and Carnap. Metaphysicists who have found Schaffer’s account of metaphysical grounding convincing have mostly displayed a tendency to dehistoricise the concept of metaphysical grounding, by tacitly building on his reading of the history of metaphysics, and preferring instead to emphasise the conceptual terms in the form of the logical properties and the kind of ‘work’ performable by metaphysical grounding. Metaphysicists, such as Wilson, who have not been convinced by Schaffer’s account of metaphysical grounding have accused Schaffer of a tendentious reading of the history of metaphysics, claiming that we do not find the concept of metaphysical grounding in Aristotelian metaphysics, nor can the Quine-Carnap debate be seen as a precursor to contemporary debates about metaphysical grounding.²⁶

There have been few attempts in the contemporary Anglo-Saxon literature on ‘grounding’ to provide a systematic historical record of ‘grounding’ and Raven (*forthcoming*) represents one of the few attempts at such an enterprise. His claim that there are two different tales of the history of ‘grounding’, viz., a tale of ‘discovery’ and a tale of ‘re-discovery’ which corresponds to the notions that ‘grounding’ is a historical concept which has developed over time, and the notion that ‘grounding’ is a concept which emerged only in the past two

²⁶ c.f. Wilson (2014)

decades in the literature on Anglo-Saxon philosophy. An important feature of Raven's account of the history of metaphysical grounding is his distinction between the 'status' and 'topic' of metaphysical grounding which roughly corresponds to the discrimination between applicative problems and foundational problems for metaphysical grounding, as I have mentioned in the introduction to this essay.

Although many philosophers have talked about 'ground' in one form, or another, and as such, we can say that 'grounding' commands some kind of philosophical currency in the history of philosophy, *prima facie* it appears to be unconnected to the concept of 'grounding' which has emerged in the past two decades in contemporary Anglo-Saxon metaphysics. We can identify numerous examples of philosophers who have mentioned 'ground' in one way or another, and to name but a few, if we comb the works of Kant, Husserl, Russell, Heidegger or Wittgenstein the term will inevitably crop up in their respective philosophies as a concept with a specific meaning, serving a specific purpose. If we compare the concepts of 'grounding' encountered in the previously named philosophers to the concept of 'grounding', and specifically, to the concept of metaphysical grounding, the notions those philosophers seem to be trying to express do not have many parallels with the concept of metaphysical grounding which was devised in the contemporary Anglo-Saxon literature on metaphysical grounding. What, then, is the history of metaphysical grounding? A clarification of the concept of metaphysical grounding seems necessary to answer that question. We can only record a history of metaphysical grounding if we know what the concept means, but given the convoluted nature of the debate about metaphysical grounding in the contemporary Anglo-Saxon literature it seems difficult to pinpoint an uncontroversial common ground for such an enterprise.

If we scrutinise the literature on 'grounding' it does seem like the common narrative that emerges is that 'grounding' was authored by three philosophers, namely, Fine, Schaffer and Rosen in three 'landmark' papers, namely, Fine (2001), Schaffer (2009) and Rosen (2010), which is what Raven denotes with the tale of 'discovery'. Those who have written on metaphysical grounding after the 'explosion' of interest in metaphysical grounding have a tendency to treat metaphysical grounding as an atemporal term which was brought into philosophical existence by the 'Trinity'. However, given the use of 'grounding' throughout philosophical literature it seems suspicious to view the notion of 'grounding' as a

contemporary one.²⁷ Indeed, the strength of Raven's conceptual history of 'grounding' seems to stem from his sensitivity to historical questions pertaining to 'grounding'. Raven's record of the conceptual history of 'grounding' thus provides us with insight into 'grounding' and other concepts which have preceded it. By making the distinction between a tale of 'discovery' and a tale of 're-discovery', Raven has found the means to reconcile the notion that 'ground' has been present throughout the history of philosophy and is a contemporary concept by claiming that the concept of 'ground' has meandered through various philosophers and systems, until the 20th century, when it was banished by anti-metaphysical sentiments, and since then we have been re-acquainting ourselves with determinative questions through various concepts which oscillate around the concept of 'ground'.

It seems obvious then that Raven is right to claim that there is something to be gained from a temporal treatment of 'grounding' which pieces together the conceptual precursors of metaphysical grounding and metaphysical grounding itself, but even Raven has limited his discussion to 20th century figures, with Bernard Bolzano being the only 19th century exception, which have prefigured analytical philosophy, and contemporary Anglo-Saxon philosophy writ-large. Similarly, Correia & Schnieder (2012), which is an oft quoted introduction into 'grounding' containing a brief history of the concept of 'grounding', discusses the historical background of 'grounding' principally in relation to Bernard Bolzano, though a few other philosophers such as Plato, Aristotle, Kant and Schopenhauer do appear in passing. It seems like Raven is on the right track but there is certainly more to be said about 'grounding' than has been covered in this section so far. Perhaps more important than shortcomings of Raven's record of the conceptual history of 'grounding', though, are the conceptual distinctions he draws to talk about 'grounding' in the first place, viz., the distinction between the 'status' of and 'topic' about 'grounding.' Raven's distinction allows us to separate questions about the 'topic' of grounding, from questions of the 'status' of 'grounding'. In this way it not only enables us to ponder the history of 'grounding', and combine two contrary intuitions with regards to 'grounding', but it also allows us to conceptualise the difference between 'grounding' and metaphysical grounding. Disentangling the difference between 'grounding' and metaphysical grounding will require a few preparatory words.

²⁷ c.f. Raven (*forthcoming*)

Not discussed in Raven's analysis of Fine is at least one more important factor which Fine contributed to the debate about 'grounding'. Specifically, in Fine (2012a), Fine draws the distinction between three discrete forms of 'ground', viz., metaphysical, natural and normative. The distinction draws from earlier work of Fine, viz., (Fine 2005), where he argues that there are three distinct kinds of necessity which are not reducible to each-other, which he illustrates as follows:

- (1) Necessarily, if the ball is red and it is round then it is red and round;
- (2) Necessarily, if the particle is acted upon by some positive force then it is accelerating;
- (3) Necessarily, if the action was done with the intention of causing harm then it is wrong.

These three examples together are indicative of the three distinct types of 'ground' that there are: metaphysical grounding, natural grounding and normative grounding. What is at stake is whether in (1-3) the metaphysical link is the same, or not. Some metaphysicists, such as in Rosen (2010) and Schaffer (2009), claim that there is only one dependence relation, but Fine claims that there are three distinct ones because there is something more going on in each case than some kind of modal connection, because, as he claims in Fine (2012) each example features some kind of determinative or explanatory connection in addition to its modal flavour. In the first case, Fine claims, the connection holds of metaphysical necessity, because the antecedent facts, viz., the ball is red and round, serve as the 'ground' for the consequent, viz., the ball is red and round. Furthermore, Fine draws an analogy between metaphysical necessity and metaphysical grounding, insofar 'as metaphysical necessity is the strictest form of necessity (at least as compared to natural and normative necessity), so it is natural to suppose that statements of metaphysical ground are the strictest form of in-virtue-of claim.' (Fine 2012) Similarly, in the two other examples we may also wonder in what way the 'in virtue of' connection between the antecedent 'ground' and the consequent fact, and just as in the case of metaphysical grounding, we can denote the connection as being related to the kind of necessity it represents and the determinative or explanatory features which 'grounding' has. In the second case, it refers to natural grounding

because the ‘grounding’ connection at stake is one which will be of special interest to those working on a determinative or explanatory connection in the natural sciences. In the third case, Fine calls the kind of ‘grounding’ connection normative grounding because, analogously, it denotes a ‘grounding’ connection which will be of special interest to those working on a determinative or explanatory connection in the natural sciences.

We can apply Raven’s distinction between the ‘status’ of ‘grounding’ and the ‘topic’ about ‘grounding’ to Fine’s distinction between various kinds of necessity. All three cases mentioned by Fine are cases of ‘grounding’ but in three distinct ways. Nevertheless, we can say that the three examples cited by Fine, even though they concern different kinds of necessity, and therefore concern different kinds of ‘grounding’, technically, all are questions of the same ‘status’ as they are questions of the application of ‘grounding’. That being said, they are distinct examples as well, but they are different insofar as the three examples are representative of three distinct ‘grounding’ connections. Thus, we can view the difference between those connections in terms of the ‘topic’ of ‘grounding’. What is at stake in all three questions is the same notion, viz., ‘grounding’, but what separates them are the notions of ‘grounding’ at stake in each of those cases. Of the three kinds of ‘grounding’ most metaphysicists seem to be working on metaphysical grounding because it is the version of ‘grounding’ which revolves around the notion that ‘grounding’ is a metaphysical link which is somehow related to metaphysical explanation be it as an explanatory link or one that backs explanation.

Even though Fine’s case for the discrimination of various kinds of ‘grounding’ can be contested it seems interesting enough to at least warrant consideration, and thus to avoid unnecessarily committing to an overly strong position on ‘grounding’, which would include all three distinct versions of ‘grounding’, I will work under the assumption that there might be various kinds of ‘grounding’ in this essay. This is motivated partly by the fact that when Schaffer invoked the concept of ‘grounding’ he implicitly means the concepts of metaphysical grounding, as he is referring to metaphysical necessity, metaphysical determination, and thus, metaphysical relations. Taking the discussion forward I will keep in line with the historical nuances which have become clear in my discussion of Raven, whilst remaining sensitive to the criticisms that have been leveraged against Schaffer. It has become clear that ‘grounding’ is a metaphysical concept which warrants philosophical attention not only because it is instrumentally related to determinative questions, but also because

conceptually it is constructed, through its logical properties, for example, so as to be instrumentally related to determinative questions.

2. A Discussion of Schaffer's Notion of Metaphysical Grounding

In the preceding section a historical and conceptual history of 'grounding' was sketched based on an expanded version of some of the ideas developed in Raven (*forthcoming*) and as has become clear, the story of 'grounding' is far from straightforward, as it includes twists, and turns, and various nuances which indicate the conceptual and historical ambiguity which surround 'grounding'. Nevertheless, Raven's suggestion to discriminate between the 'status' of 'ground' and the 'topic' about 'grounding' has allowed us to piece together the 'grounding' patchwork, and to shape it into a coherent and cohesive story which not only discloses its place in the history of philosophy and its relation to other concepts in metaphysics, especially, inter-level metaphysics, but it has also enabled us to conceptually discriminate between questions of the 'status' of 'grounding' which relate to the kind of 'work' 'grounding' can do, and questions about the 'topic' of 'grounding' which pertain to the properties of 'grounding' itself which are comparable applicative problems and foundational problems respectively. By delineating the scope of the application of 'grounding', namely, the kind of 'work' 'grounding' can perform, we are saying something important about its 'status', and by delving into foundational questions about the 'topic' of 'grounding' we are shedding light on 'grounding' *qua* 'grounding'. In the previous section we touched on various aspects of the 'status' of 'grounding', and we touched on the 'topic' of 'grounding' as well. In the case of the former we discussed various applications of 'grounding' especially in cases of determination and its connection to metaphysical explanation, and metaphysical necessity. In the case of the latter, we touched on various approaches to foundational problems of 'grounding', including discussions of its features, logical properties, and the discrimination between various kinds of 'grounding', including the version discussed in this essay — metaphysical grounding.

In this section, I will expand on some of the conceptual points found on in Schaffer (2009) but which have not been touched upon in the preceding section, including some of the notions Schaffer's has developed in two further papers, namely, Schaffer (2010, 2012),

preceding the objections found in Wilson (2014), which represent a systematic deconstruction of Schaffer's notion of metaphysical grounding. Given that we are now transitioning from talking about 'grounding' in broad lines, to a restricted discussion of Schaffer's notion of metaphysical grounding, the discussion will proceed in terms of metaphysical grounding. This section will serve as the conceptual basis for further discussion of Schaffer's ideas, and more specifically, the interaction between his ideas and Wilson's objections to Schaffer's ideas. In order to maintain a perspicuous discussion of metaphysical grounding, both in terms of Schaffer's notions about metaphysical grounding, and in terms of the objections to metaphysical grounding, the distinction between 'status' and 'topic' borrowed from Raven will be preserved.

Aspects of Schaffer's Notion and Concept of Metaphysical Grounding

Schaffer (2009) begins by claiming that contemporary metaphysics is usually introduced against the backdrop of the Quine-Carnap debate, with the tacit understanding that Quine emerged with the upper hand. Schaffer, however, questions whether metaphysics can be correctly conceptualised within the dichotomy of a debate between a positivist and a post-positivist, both of whom have a deflationary attitude towards metaphysics. Schaffer (2009) specifies that for both Quine and Carnap metaphysics is exhausted by questions pertaining to *existence*, such 'as whether properties exist, whether meanings exist, and whether numbers exist.' What they disagree on, Schaffer explains, is whether such questions are *meaningful*, but, as Schaffer rhetorically continues, why ought we to think that metaphysics is characterised by such questions? Schaffer contrasts Quine's position with Aristotle's which, Schaffer claims, takes existence questions for granted and instead focuses on the notion of *substance* which is the *basic, ultimate and fundamental unit of being*.

Thus, when Aristotle discusses the existence of numbers, Schaffer (2009) argues that, '[t]he question is not whether numbers exist, but how' because '[f]or Aristotle, the serious question about numbers is whether they are transcendent substances, or grounded in concreta.' Schaffer quotes a passage in which Aristotle states that the objects of mathematics exist, and takes Aristotle to understand under the objects of mathematics, numbers. By interpreting Aristotle in this way, it becomes obvious to Schaffer that there are statements

which command *Moorean certainty*. That is to say, it is obvious to Schaffer that there are statements which are so credible, that there is no argument that can be provided which itself will be more credible than the statement in question, and, in this case, that is the statement that the existence of numbers is certain. This train of thought guarantees the existence of substances, or fundamental entities, because fundamental entities will be just such entities which are so credible that there is no argument to the contrary such that the argument will be more credible than the existence of the fundamental entity in question. Thus, for Schaffer, how entities exist will be the more interesting question, because, for him, it is obvious that they do, and how entities exist will be answered by identifying ‘what [metaphysically] grounds what’.

‘Status’ of Metaphysical Grounding

In Schaffer (2009) there are a few examples which Schaffer puts forth to illustrate metaphysical grounding. While the main thrust of Schaffer’s metaphysical grounding pitch is based on the idea that it can play a definitive role in explanation the relation between entities which are separated by natural priority, Schaffer mentions cases which are less abstract and more concrete. Specifically, Schaffer divides his examples into two groups. Firstly, there is the group which is motivated historically, in accordance with Schaffer’s wish to show that metaphysical grounding wields historical philosophical currency. Secondly, there are more contemporary examples which pertain to notions in philosophy which have appeared since the classical period.

Schaffer’s historical examples draw from Plato, and specifically from *Euthyphro* and *The Republic*. With regards to the former, it finds its expression is what is referred to as ‘Euthyphro’s dilemma’. In ‘Euthyphro’s dilemma’, according to Schaffer, Plato managed to postulate a question pertaining to natural priority by querying whether what is holy, is holy, because it is approved by the gods, or whether the gods approve of what is holy, because it is holy. Schaffer claims that this is an intuitive example, and it clearly concerns natural priority, and thus is amenable to being reformulated in terms of metaphysical, where we could perhaps reformulate the dilemma as querying whether what is holy, is holy, because it is metaphysically grounded in the gods’ approval, or whether what is holiness is metaphysically

grounded in the approval of the gods. With regards to latter, Schaffer claims that the question of natural priority appears in *The Republic* as well. Specifically, Schaffer refers to a passage in the *The Republic* which concerns Plato's notion of 'Good'. For Plato 'Good' stands as the ultimate foundation for the metaphysics and epistemology which he is advancing in *The Republic*, and thus in the dialogue Plato's Socrates claims that objects of knowledge, their 'Forms', derive their existence and essence from 'Good', or to put it Schaffer's terms, the existence and essence of 'Forms', and the fact that we can come to know them, is metaphysically grounded in the fact that they are 'Good'. Such inclinations towards natural priority was then picked up by Aristotle, Schaffer claims, and consequently 'codified' into the concept that we are familiar with, by establishing that substances are fundamental, and finally conceives of metaphysics as the study of substances and the metaphysical relations which govern them. Plato's notions and Aristotle's concepts have thus left their mark on the history of philosophy, and ultimately have reached our contemporary times and have found their final expression in metaphysical grounding.

Secondly, Schaffer mentions another cluster of historical examples which are concentrated around contemporary concepts and notions. Specifically, in Schaffer (2009) the following relations are recalled as examples: '(i) the entity and its singleton, (ii) the Swiss cheese and its holes, (iii) natural features and moral features, (iv) sparse properties and abundant properties, and (v) truthmakers and truths.' In each of the aforementioned cases a relation of metaphysical grounding is supposed to be in place, and thus, each of the two mentioned entities are the *relata* of metaphysical grounding relations. These few, though not all, examples are somewhat clarified, as Schaffers explains that, for example, in the relation between an empty set and pure sets it seems intuitive to consider the former to be basic and the latter as founded on it, thus creating a relation of metaphysical dependence; in the relation between Swiss cheese and its holes, Schaffer contends that it is plausible that Swiss cheese, as a substance, is thus a primary entity which is naturally prior to the holes which count as a secondary substance and thus a secondary entity. Finally, with regards to the relation between truthmakers and truth, Schaffer cites and reads a passage by Aristotle as constating that truth is metaphysically grounded in being.

Schaffer (2009) summarises Aristotle's position as the 'view, [that] metaphysics is the discipline that studies substances and their modes and kinds, by studying the fundamental entities and what depends on them.' In other words, by studying the fundamental entities, the

entities which depends on them, we can understand the modes and kinds of substances. Furthermore, by understanding the modes and kinds of substances of the world we can understand the structure of the world. In response to the Quine-Carnap debate, and building on his own interpretation of Aristotle, Schaffer (2009) advocates his own position as a token of neo-Aristotelian resurgence with regards to metaphysics and ontology which is characterised by an *Aristotelian task* and an *Aristotelian method*.

For Schaffer metaphysics is guided an *Aristotelian task*, viz., ‘to say what [metaphysically] grounds what.’ According to Schaffer, neo-Aristotelians share two important traits, viz., they believe in a *hierarchical view of reality*, where we can conceive of reality as being constituted by layers which are ordered by *priority in nature*. This is where ontology and metaphysics come together for Schaffer. On the one hand we have vertical metaphysical structure, and on the other we have ontological entities which line said structure. Ontological entities persist in metaphysical relations of dependence with each-other, and what glues the layers of reality together is ontological priority. A primary entity will be an entity such that other entities depend upon it but a primary entity itself depends on nothing else. Analogously, posterior entities are such entities which are metaphysically grounded in other entities, which is to say, that they depend on and derive from other entities. Thus, for Schaffer (2009), primary entities will form together a ‘sparse structure of being, while the [metaphysical] grounding relations generate an abundant superstructure of posterior entities.’

With these two cluster of examples Schaffer aims to show in Schaffer (2009) that there is a clear framework within which the concept of metaphysical grounding should be viewed, and that there is an abundance of applications for metaphysical grounding. So far I have discussed the framework, namely, the neo-Aristotelian metaphysics which Schaffer endorses, and the kind of ‘status’ that metaphysical grounding bears for Schaffer, namely, the kind of ‘work’ that metaphysical grounding can execute, and as we have seen, according to Schaffer, there is ample work for metaphysical grounding to execute. In Schaffer (2009) Schaffer believes that metaphysical grounding is what metaphysically limns the ontological layers which constitute reality. With this in mind, there is but one thing left to touch upon, and those are the ‘formal constraints’, as Schaffer refers to them, or the logical properties, as I have denoted them.

‘Topic’ of Metaphysical Grounding

If we can view the ‘status’ of metaphysical grounding in Schaffer (2009) being summarisable in what Schaffer views as the task of metaphysics, namely, to indicate what is metaphysically grounded in what, then the ‘topic’ of metaphysical grounding is indicated by an ‘Aristotelian method’, which according to Schaffer runs as follows: ‘The method of metaphysics is to deploy diagnostics for what is fundamental, together with diagnostics for grounding.’ Schaffer enumerates three diagnostics for fundamental substances, two for the relations of metaphysical grounding, and four more from which the picture of substances from the aforementioned diagnostics converge upon, of which I will only discuss the most relevant one.²⁸

In this subsection I will briefly mention some of the logical properties which Schaffer attributes to metaphysical grounding and the kind of diagnostics he believes establish ‘clear formal constraints’ on metaphysical grounding. I will firstly discuss the logical properties which Schaffer attributes to metaphysical grounding and then proceed to discuss the diagnostics for metaphysics and metaphysical grounding which Schaffer proposes. Although strictly speaking the diagnostics do not make their return in posterior works by Schaffer, they are useful in understanding what Schaffer had in mind in Schaffer (2009), as opposed to his later papers, such as (Schaffer (2010, 2012)), where he strays away from a distinctly neo-Aristotelian metaphysics to one that seems more conventionally Anglo-Saxon, even if it continues to endorse the notion of monism.

Logical Properties

Crucially, Schaffer labels metaphysical grounding as a *primitive*. That is to say, Schaffer (2009) believes that metaphysical grounding is a concept which cannot be defined, which is unanalysable, but that ‘is *the primitive structuring relation of metaphysics*.’ In this vein, Schaffer uses grounding to define a number of metaphysical terms, of which the two

²⁸ I will discuss the diagnostic *priority monism*. The other diagnostics, viz., *thick particularism*, *substratum* and *mode as derivative*, *universal decomposition* (c.f. Schaffer 2009) are just further specifications of the diagnostic which I’ll discuss, namely, *priority monism*.

most important are the concepts of a *fundamentality entity* and *derivative entity*. Schaffer (2009) defines them as follows:

Fundamental: x is fundamental $=_{df}$ nothing ground x .

Derivative: x is derivative $=_{df}$ something grounds x .

According to Schaffer, the upshot of metaphysical grounding is such that it allows for a natural and intuitive formalisation of the relationship between primary and posterior entities within the greater structure of the skeleton of metaphysical dependence. Thus, according to Schaffer, we can easily denote whether something is *fundamental*, because an entity would be such just in case it is not metaphysically grounded in anything else, and *vice versa*, an entity is *derivative* just in case it is metaphysically grounded in something else. Furthermore, Schaffer claims, we can easily give examples of putative cases of metaphysical grounding, as they are limited by clear formal constraints resulting from the logical form of metaphysical grounding, and the diagnostics for metaphysics discussed above.

I have already mentioned that Schaffer poses metaphysical grounding as a primitive. In Schaffer (2009) he presents metaphysical grounding as a two-place predicate, i.e., a binary relation indicated by the symbol \backslash . We can thus frame relations of metaphysical grounding as $\langle x \backslash y \rangle$ which is just to say that x is metaphysically grounded in y . As for which entities we can fill into the formula, Schaffer claims that metaphysical grounding can accommodate entities of any arbitrary ontological category. Schaffer specifies that his notion of metaphysical grounding is both *partial* and *relative*. It is the *partial* because $\langle x \backslash y \rangle$ does not lock out the possibility of a metaphysical grounding relation such as $\langle z \backslash y \rangle$, assuming that $x \neq z$. This is just to say that a grounding relation can have a plurality of metaphysical grounds, i.e., that both x and z are two cases of metaphysical grounds for y . As for relativity, it is just to say that $\langle x \backslash y \rangle$ and $\langle y \backslash z \rangle$ are compatible with each-other as well, for, according to Schaffer, entities might be in grounding relationships with other entities and thus form chains between layers which are more fundamental, and those that are less so. Schaffer's formalisation of the relations of metaphysical grounding leads him to three further formal features: *irreflexivity*, *asymmetry*, and *transitivity*, viz., the three formal features of partial orderings, which as Tahko (2015) succinctly puts them, mean:

Symmetry A relation R is symmetric if and only if: if x is related by R to y , then y is related by R to x .

[Ir]reflexivity A relation R is [ir]reflexive if and only if: R is [not] self-relating, [nothing] bears R to itself.

Transitivity A relation R is transitive if and only if: if x is related by R to y , and y is related by R to z , then x is related by R to z .

We have thus established the basic context and features which Schaffer (2009) attributes to metaphysical grounding. It is, first of all, primitive. We cannot analyse it, but we can define the formal features which govern relations of metaphysical grounding. Further, we can actually denote what kind of ordering metaphysical ground is, viz., a partial order. Crucially, according to Schaffer, it is also useful since we can intuitively and naturally apply it to cases of putative metaphysical dependence in a way which seems closely related to explanation. These factors lead Schaffer to conclude that metaphysical grounding passes the required tests for a metaphysical primitive.

Some adjustments are made to this basic picture sketched above in Schaffer (2012) which warrant brief discussion, as they will prove relevant to an objection raised by Wilson (2014). Specifically, in Schaffer (2009) metaphysical grounding is postulated as a *binary relation* of metaphysical dependence, one which is neutral with regards to the ontological categories of its relata. In Schaffer (2012) metaphysical grounding is postulated as a *quaternary relation* instead, which is based on a *contrastive account* of metaphysical grounding. That is to say, Schaffer spells out a model for metaphysical grounding in which there are two slots for facts and two slots for *contrasts*. This is more restrictive than Schaffer (2009) which allowed for entities of any category, as now the only category permitted in relations of metaphysical grounding are specifically *facts*. On the new contrastive account of metaphysical grounding, relations of metaphysical grounding will be of the form: ‘[t]he fact that ϕ rather than ϕ^* grounds the fact that ψ rather than ψ^* ’. There are two principal reasons for taking a contrastive approach to metaphysical grounding as opposed to denoting it as a binary relation. Firstly, Schaffer (2012) construes metaphysical grounding as a non-explanatory but explanation-backing relation. The upshot of this position is that if explanation is contrastive, then metaphysical grounding is a relation which naturally latches on to the concept of explanation by back it. Secondly, a contrastive account of metaphysical

grounding seems to be able to deal with certain problematic cases which arise on the assumption that metaphysical grounding is a binary relation. These cases pertain to putative failures of transitivity which arise within the framework of binary relations, but which become accountable for when binary relations are substitute with quaternary relations. These cases provide another motivation for the contrastive account of metaphysical grounding, but on the other hand, they leave metaphysical grounding open to other criticisms, which as we will see, Wilson (2014) exploits.

Diagnostics

The three diagnostics for fundamental substances are *minimal completeness*, *metaphysical generality*, and *empirical specifiability*. According to the first, substances are minimally complete, which is to say that there is a set S for a world w which is complete, and that there is no proper subset of S which is also complete for w . Furthermore, '[a] set S of entities at w is complete for w iff S serves to characterize w , by providing a supervenience base for w .' (Schaffer 2009) According to the second, the form of substances is such that it fits all metaphysical possibilities, which is to say that for the most general features of the form of a collection to fit all metaphysical possibilities it is both necessary and sufficient that the features are in all metaphysically possible worlds. So, for Schaffer, the modal possibilities of substances are equal to the ways in which the world could be. According to the third, fundamental physics unpacks the content of substances, which is to say that the most specific features of an inventory are its contents for those to be empirically specifiable it is both necessary and sufficient that those features are provided by fundamental physics.

The two diagnostics for relations of metaphysical grounding are *permissiveness* and *abstraction*. According to the former diagnostic, relations of metaphysical grounding generate an abundance of entities which is just to say that Schaffer envisions relations of metaphysical grounding as being very robust in that they can generate many posterior entities from far fewer fundamental entities. Incidentally, this diagnostic is supposed to be complemented by Schaffer's permissivism about existence. Since he is willing to treat existence claims in essentially Moorean terms, that is to say, as long as the existence of a fundamental entity is more credible than any argument to the contrary, he is willing to

concede the existence of said entity. As a result, Schaffer's framework can both account for the existence of particular fundamental entities, and consequently, the way in which posterior entities are generated therefrom. According to the latter diagnostic, Schaffer wants to secure the posterior entities as an *ontological free lunch* in the *Armstrongian* sense. Schaffer (2009) suggests that we can understand Armstrong's doctrine as the contention that '*whatever is dependent is not fundamental, and thus no addition to the sparse basis.*' In this sense, posterior entities do not count as an addition to the sparse basis of fundamental entities because they are already ingrained in the fundamental entities. Thus, relations of metaphysical grounding do not add anything over-and-above fundamental entities, and the relation itself is sufficiently fine-grained so as to be able to discriminate between aspects and features already inherently present in fundamental entities.

The final diagnostic that I will discuss is *priority monism*. This diagnostic is the result of the picture that all the aforementioned diagnostics converge upon. It follows from priority monism that there is only substance and that the whole concrete cosmos is that one particular substance. A few things follow from priority monism. Firstly, all differences in the cosmos are tracked by differences in the world and in this sense 'priority monism delivers a complete roster of substances.' (Schaffer 2009) Secondly, the roster of substances is trivially minimal, which is to say that there is only one subset of the set *C* containing as its only element the cosmos which is an empty set, and which is therefore incomplete. Thirdly, the roster is metaphysically general because the modal possibilities of the cosmos are specified by the ways in which the world could be. Lastly, the roster is empirically specifiable because 'advanced physics is field theoretic physics, and field theory has a natural monistic interpretation in terms of a spacetime bearing properties.' (Schaffer 2009)

In sum, for Schaffer, metaphysics consists of an Aristotelian task and an Aristotelian method which both denote the object of metaphysics and encapsulate its target in a protocol, viz., diagnostics for fundamental substances and relations of metaphysical grounding, and together those yield general diagnostics about substances writ-large.

Discussion

For both Raven and Schaffer metaphysical grounding is as a concept which is at once both novel and backed by the philosophical tradition, and in this way he develops a narrative which from the point of view of Raven's distinction the 'status' and 'topic' of metaphysical grounding can be presented as a concept which, with regards to the former, can do some kind of 'work', and with regards to the latter, contains a number of logical properties. There are, however, differences between them and I will now highlight some of them.

Schaffer, like Raven, believes that metaphysical grounding commands significant philosophical currency and is not just a contemporary philosophical concept which has emerged in inter-level metaphysics, but rather that it is a concept which was always philosophically present in the history of philosophy because if we turn to the roots of the Western philosophical tradition as represented by Plato and, in particular, Aristotle, we will find that questions of metaphysical grounding have always accompanied us, even if they were not explicitly referred to as such, such as in the case of 'Euthyphro's dilemma. According to Schaffer, this is an example of metaphysical grounding *par excellence* because what the question is truly querying is which horn of the dilemma is the fundamental horn, and which one is the derivative. In other words, the question is whether the quality of being pious is metaphysically grounded in the gods approving thereof, or whether the gods' approval of the holy is metaphysically grounded in the quality of being pious.

Schaffer believes that through the ease with which 'Euthyphro's dilemma' can be re-conceptualised within the framework of metaphysical grounding, we can appreciate not only how intuitive the framing of the dilemma is in terms of metaphysical grounding, since it does seem to be question of metaphysical dependence, viz., whether entity x is metaphysically grounded in y , but also how powerful of a tool it is in its applicability. That is to say, by allowing us to naturally conceptualise cases which involve relations of metaphysical dependence metaphysical grounding appears to provide us with something in the way of explanation. In fact, Schaffer presents metaphysical grounding as *hyperintensional*. An entity and its singleton are intentionally equivalent when in any metaphysically possible world in which the entity obtains, its singleton obtains as well, and *vice versa*, in any metaphysically possible world in which the singleton obtains, the entity will obtain as well. However, metaphysical grounding, like explanation, is hyperintensional because while it is the case that the entity and the singleton are intentionally equivalent, there is a priority relation between which results in either a true sentence, or a false sentence. It is

true that an entity metaphysically grounds the singleton, but it is false that the singleton metaphysically grounds an entity, which is also the case for explanation.

Schaffer describes himself as a neo-Aristotelian and thus he not only argues that the roots of the contemporary concept of metaphysical grounding can be traced to the classical world and that ancient Greek philosophy was the cradle of metaphysical grounding, but specifically that metaphysical grounding is a neo-Aristotelian concept because, for Aristotle, metaphysics is about indicating what is metaphysically grounded in what, and the *relata* of such relations are substances. Schaffer reads neo-Aristotelian substances so as to correspond with fundamental units of being, which are also basic and ultimate; and he makes the distinction between primary entities, and secondary entities, where primary entities are substances, and secondary entities are those entities which are the result of metaphysical grounding relations. This leads Schaffer to the view that the precept of neo-Aristotelian metaphysics is that it begins with a ‘hierarchical view of reality’, and that reality consists out of ontological layers, which are metaphysical related to one-another through relations of metaphysical grounding.

Schaffer’s concept of metaphysical grounding is motivated by his neo-Aristotelian notion of a layered reality, as the concept of metaphysical grounding is what is supposed to be able to make sense of a reality which consists of such levels. Simultaneously, Schaffer’s concept of metaphysical grounding hinges on a discussion of natural priority, namely, the idea that we can indicate which substances are primary, which substances are secondary, or more in line with Schaffer’s vocabulary, as getting at the distinction between primary and secondary entities. In Schaffer (2009), Schaffer drives home the distinction between primary entities and secondary entities as constituting natural by explaining that primary entities constitute a ‘sparse structure of being’ whilst secondary entities are ‘an abundant superstructure of posterior [secondary] entities’ generated by metaphysical grounding. Although Schaffer (2009) derives his definition of substance from Aristotle, for the purpose of this essay what is more important is the distinction between primary and secondary entities and that distinction can be defined in terms of fundamentality, or more precisely, primary entities are ‘(as it were) all God would need to create’ in order to generate a superstructure of secondary entities, or to put it differently, primary entities are fundamental because they are what are necessary for secondary entities and, consequently, all secondary entities are metaphysically grounded in primary entities.

One final touch to complete Schaffer's picture of natural priority as defined in terms of primary and secondary entities is that since primary entities form a complete minimal basis. As they are the constituents of fundamentality, they themselves are exempt from relations of metaphysical grounding insofar as primary entities by definition cannot be metaphysically grounded in anything else. However, they can metaphysically ground other entities, and in particular all secondary entities are such entities which are metaphysically grounded in primary entities. Thus, metaphysical grounding is that relation which, according to Schaffer, limns the structure of metaphysics which consists out of the relations of natural priority between primary and secondary entities.

Although Schaffer acknowledges the controversies which surround interpretations of Aristotle's notion of substance, he seems to interpret substance in the generic way it is usually encountered in metaphysics, which is to say, as denoting fundamental entities. In this regard Schaffer appears less prudent than Raven as he seems willing to take on the dangerous path of supposedly interpreting Plato and particularly Aristotle. Such approaches are always underpinned by the difficulty of discerning what Plato and Aristotle had in mind, something deeply embedded in the context of their existence, and what the person reading them believes they are saying. It is less controversial to draw inspiration from a philosopher than to claim that a philosopher has literally said what a reading of him implies. Raven propounds these sentiments by being more wary of anachronism than Schaffer is, and his distinction can be seen as an attempt to discern determinative questions both in terms of their implicit features of 'topic' and the explicit features of 'status'. Rather than directly reading 'grounding' off philosophers of the past and injecting 'grounding' into their respective philosophies he seems to prefer the tamer approach of synthesising questions of the 'status' of 'grounding' from those philosophers, and to only consider 'grounding' as a 'topic' separately, being more sensitive to notion that philosophers of the past could have had a different notion of 'grounding' and thus used the term 'grounding' to indicate a different concept, one which might be unfamiliar to the concept which we will find in the contemporary literature on Anglo-Saxon philosophy. Indeed, in the following section Wilson (2014) will accuse Schaffer of telling a 'just-so story' about the history of metaphysics which does not bear any semblance to historical reality of the field. She will argue that Schaffer's record of the history of metaphysics is a tendentious reading which does not do justice to the reality of the history of philosophy, but rather represents an injection of Schaffer's own beliefs into philosophy of

the past without remaining sensitive to the difference in perspective between himself and those philosophers, and the difference in context between himself and those of philosophers of the past.

A way in which the tension between Schaffer's reading of metaphysical grounding in Aristotle can be viewed is with regards to the kind of logical properties that he attributes to it. As has been mentioned, Schaffer presents metaphysical grounding as consisting of four main properties, namely, primitivity, irreflexivity, asymmetry, and transitivity. As a primitivist about metaphysical grounding Schaffer endorses the view that we cannot define metaphysical grounding, however, we can come to understand what the concept means by looking at the kind of work it can accomplish, in our current case, the dichotomy between primary and secondary entities, the meaning of metaphysical grounding is brought out through the metaphysical relation which metaphysical grounding affixes between primary and secondary entities. This notion of primitivity is one, however, that in the work of Aristotle seems to have been understood differently.

Gasser-Wingate (2016) claims that for Aristotle scientific understanding is demonstrative in character, and that understanding a truth is expressed in the ability to demonstrate it from premisses which explain why it holds, and similarly, we understand a domain of science if we know how to demonstrate the truths of a domain. As Gasser-Wingate (2016) puts it: 'Aristotle thinks of demonstrations (*ἀποδείξεις*) as chains of syllogisms whose premise pairs explain their respective conclusions — in his terminology, the middle term *B* in a premise pair *AaB*, *BaC* will explain why *AaC*, the middle term *C* in a premise pair *AaC*, *CaD* will explain why *AaD*, and so on for all syllogisms in a deduction linking an initial premise *AaB* to some demonstrated conclusion *AaX* (for some term *X*).' On such a reading of Aristotle's explanation is a relation which is asymmetrical and transitive and demonstrations are chains of syllogisms. Gasser-Wingate claims that such explanatory relations for Aristotle hold between 'facts', where facts are taken to mean things such as the fact that planets do not twinkle in the sky is explained by the fact that they are in the proximity of Earth.

In demonstrations which are chains of syllogisms the premisses will be 'explanatory primitives', as all the truths within a scientific domain are explained by them and none of those truths can explain the premisses. Those premisses which cannot be explained will be denoted as 'first principles', of which three different kinds of 'first principles' for Aristotle which are 'axioms', 'definitions', and 'suppositions'. Of the three 'definitions' are the most

important one and they express ‘the essence of the natural kinds definitive of some scientific domain’ (Gasser-Wingate 2016) Illustrating this point we might say that an astronomer who wants to demonstrate, and thus explain, why lunar eclipses occur, in order to explain lunar eclipses will need at least one ‘first principle’ with regards to the motion of celestial bodies.

My point with the short explication of Aristotle’s philosophy by a contemporary Aristotelian scholar is that what emerged from an analysis of Aristotle’s philosophy is a very nuanced picture. Of course, the only way we can talk about philosophers of the past, as we are not equals, is through the lense of time and thus the development of ideas and vocabulary which were not available, for example, to Aristotle, but there is a difference in the way in which Gasser-Wingate approaches Aristotle, and the way in which Schaffer approaches Aristotle. In the case of the former, as an Aristotelian scholar, his purpose is to try to explicate and defend exegetical points in the work of Aristotle, while in the case of the latter, a rather strong interpretation of Aristotle is drawn which veers towards appropriation. It seems fair to say that Aristotle had some kind of notion in mind which we could refer to as primitivity, but the kind of notion Aristotle had in mind, within the system of his own philosophy, takes up a very specific place and form with regards to other elements in his philosophical system. Similarly, while it seems that we can attribute the logical properties of asymmetry and transitivity to the kind of explanation that Aristotle has in mind with regards to the demonstration of his own understanding of the relationship between demonstration and explanation is deeply contextualised within the frame of his philosophy.

This is not to say that we cannot, or should not, read philosophers of the past, and that the enterprise will necessarily face failure, but it does show that there is a certain difficulty to re-interpreting Aristotle as stating, for example, that metaphysica is about what metaphysically grounds what. In the scope of Aristotle’s philosophy perhaps we can find a notion of ‘grounding’, as a ‘topic’, but such a notion in all likelihood will be an independent concept which is deeply connected to other concepts within his philosophy. On the other hand, looking for questions of the ‘status’ of the contemporary concept of metaphysical grounding seems less problematic because it might be worthwhile to interpret or re-interpret questions which Aristotle raised as questions of determination. In this sense, I think a shortcoming of Schaffer is that he is too eager to find the ideas which he believes in, in the corpus of Aristotelian, which could be avoided by the inclusion of Raven’s distinction between the ‘status’ and ‘topic’ of ‘grounding’. While we can read determinative questions in

Aristotle's corpus, it is dangerous to project the 'topic' about metaphysical grounding into his corpus because in all likelihood the concept of 'grounding' in Aristotle's corpus, if there is one, will be significantly different to the kind of 'grounding' we understand today.

It is thus better to read Schaffer's account as a contemporary proposal for metaphysical grounding, rather than a plea for a concept which has significant philosophical currency. While we can most likely find questions of determination in Aristotle's corpus, Schaffer runs the risk of being crude by directly injecting his interpretation of Aristotle into Aristotle, and it would have been better if he made a conceptual in the vein of Fine and Raven before embarking on a historical discussion of metaphysical grounding. This would have avoided the risk of sounding crude, and would have avoided Wilson's objection that Schaffer is telling a 'just-so story' about metaphysical grounding which I will discuss in the following section. It seems more accurate to say that metaphysical grounding is a concept which as a 'status' has significant philosophical currency, but indeed, perhaps as a 'topic' it will be wiser to take Raven's position and claim that it only emerged as a 'topic' explicitly in the past few centuries, and that even then, the 'topic' about 'grounding' is not ubiquitous and that, even within those philosophers that have talked about 'grounding' as a 'topic', there are important differences.

3. A Discussion of the Graininess of Metaphysical Grounding

In the preceding section Schaffer's account of metaphysical grounding was fleshed out and conceptual and historical points were touched upon which had not come up in the first section of this essay. We now have a clear understanding of what Schaffer understands as the 'topic' about metaphysical grounding, and what he thinks the 'status' of metaphysical grounding is, as well. In the case of the former, we now understand that Schaffer views metaphysical grounding as a concept which bears the following logical properties, viz., primitivity, asymmetry, irreflexivity, with the possible exception of transitivity given the counterexamples that Schaffer (2012) himself has provided against the logical property. In the process of discussing these two points I have suggested that Schaffer's account suffers from the shortcoming of relying too much on the notion that metaphysical grounding holds significant philosophical currency in virtue of supposedly being an Aristotelian concept, but I

have indicated that we can still treat Schaffer's concept of metaphysical grounding in an atemporal fashion, especially if we rely on the distinction between 'topic' and 'status'. A way in which Schaffer's reading of Aristotle can be seen as problematic is contained in the features which Aristotle attributed to explanation *qua* demonstration, viz., the fact that Aristotle seems to envisage explanation as a relation which is both asymmetrical and transitive. If we follow Schaffer in denying that metaphysical grounding is transitive then inevitably we need to give up the notion that metaphysical grounding is an explanatory relation, and rather deferring it to a relation which in some way backs explanation. In the case of Schaffer he has suggested a contrastive treatment of metaphysical grounding to make up for the lack of transitivity.

In this section, I will turn to a discussion of the seminal objections which have been raised against metaphysical grounding and which have become the source of a significant amount of scepticism about metaphysical grounding. Specifically, I will discuss Wilson (2014) which contains deep-reaching objections against metaphysical grounding built on the claim that metaphysical grounding is too 'coarse-grained' to do any serious kind of 'work', which is to say that metaphysical grounding fails both in terms of its 'topic' and its 'status' because it suffers from foundational and applicative problems respectively, on both fronts. I will discuss Wilson's objections illuminating the way in which she argues that metaphysical grounding is 'coarse-grained', which leads to her conclusion that there is no basis to denote metaphysical grounding as a primitive relation. I will close this section with a discussion of some of the ideas which we have encountered in this section, dividing them between questions about the 'topic' of metaphysical grounding and questions about the 'status' of metaphysical grounding. I will discuss the insights from Wilson to provide a unified discussion of their points and to combine their case against metaphysical grounding, which on the one hand, claims that metaphysical grounding is too 'coarse-grained' and, on the other hand, claims that there is no basis to postulate metaphysical grounding as a primitive metaphysical relation. The points made in this section will serve as the foundation for the rest of my argument in this essay. In the following section it will become clear that Schaffer's attempts to respond to the objections mentioned in this section fail, and thus we will need to revisit the concept of metaphysical grounding in order to fortify it against objections from graininess.

The ‘No Work’ Claim

As we have discovered through our attempt to piece together a conceptual history of ‘grounding’ and metaphysical grounding in the first section, the backstory behind metaphysical grounding is quite diverse but nevertheless the essentials of metaphysical grounding boil down to the work of the ‘Trinity’. There has been scepticism about metaphysical before the work of Wilson and Koslicki, but their works provides one of the first systematic sceptical challenges to metaphysical grounding, and their objections are aimed squarely the strategies developed by Schaffer, Fine and Rosen. In this sense we can speak of the seminal papers by Wilson and Koslicki constituting the ‘Binity’ which contests the ‘Trinity. In what follows, I will discuss the main thrust of Wilson’s objections against Schaffer (2009, 2010, 2012), although, as she claims, the implications of her criticisms run across the board for metaphysical grounding and are applicable to all accounts of metaphysical grounding, as they all ‘crucially depend on specific details of these accounts.’ (Wilson 2014) My discussion of Wilson’s objections will be divided into three parts.

Firstly, I will discuss Wilson’s objection to the claim that contemporary metaphysics should viewed against the backdrop of the Quine-Carnap debate. This point has already been foreshadowed in the preceding section and this discussion will drive home some of the points which I have been making, primarily the notion that Schaffer’s interpretation of the history of metaphysics is problematic and his reliance on a ‘just-so story’ about the history of metaphysics undermines how convincing his proposal for metaphysical grounding is.

Secondly, I will then discuss Wilson’s criticism to two strategies that one can take towards metaphysical grounding. On the one hand, Wilson (2014) claims that metaphysical grounding is ‘too coarse-grained to do the work of appropriately characterizing metaphysical dependence on its own, failing to distinguish importantly different (eliminativist, reductionist, non-reductionist, emergentist) accounts of such dependence, not to mention ‘small-g’ variations on these themes.’ On the other hand, Wilson also objects that there are no reasons to posit metaphysical grounding on top of the concepts already presents in the metaphysicist’s toolbox. That is to say, she claims that metaphysical grounding adds nothing to the features and characteristics already contained in the relations denoted by ‘small-g’ concepts such as ‘type identity, token-but-not-type identity, functional realization, the

classical mereological part-whole relation, the causal composition relation, the set membership relation, the proper subset relation, and the determinable–determinate relation, among others.’ (Wilson 2014) Thus, in this subsection it will become clear what Wilson’s objections from graininess amounts to.

Thirdly, I will discuss Wilson’s objections against attributing logical primitivity to metaphysical grounding. This will largely follow from the discussion of the preceding section. If metaphysical grounding is not a useful concept because it is too ‘coarse-grained’ then it appears we have no good reason to postulate it as a logical primitive. As we seen in the discussion of explanation in Aristotelian philosophy, for something to qualify as a primitive notion its truth cannot be expressible other terms, but the notion in some way is necessary in building up knowledge. This implies that the concept has to be useful and in some way function as a conceptual bedrock. Wilson’s upshot is that she indicates that it is not the case that metaphysical grounding is a useful concept, and if it is not useful, then it seems we have no reason to postulate it as a logical primitive.

A ‘Just-So Story’

Wilson (2014) argues that it is a *just-so story* that the Quine-Carnap debate forms the backdrop of contemporary metaphysics. According to Wilson, it is not true that the *Quinean* position is the prevailing view of metaphysicists because if we scrutinise the work that metaphysicists do, we will notice that the questions they tackle, and the tools they utilise in answering those questions, are not confined to simple questions of *existence*. It would be more accurate to say that existence is one of the questions tackled, amongst a slew of other questions, and the tools and methods which are utilised by metaphysicists to provide answers to these questions is equally heterogeneous. Wilson disagrees with the notion that inter-level metaphysics has suffered from prejudice and thus that metaphysical grounding is a metaphysical idiom which has suffered from disinterest in inter-level metaphysics and has as a result has been suppressed and reduced to other more familiar concepts. Wilson also disagrees with the claim that the notion of metaphysical explanation, as differentiated from scientific explanation or causal explanation, is a notion which has only recently appeared in the history of philosophy, and specifically in the history of metaphysics. In this she stands

opposite to Schaffer and in some respects to Raven as well, although the latter has made the distinction between the ‘status’ and ‘topic’ of ‘grounding’ at least partly to alleviate Wilson’s concerns with what she views as the disingenuous manner in which metaphysical grounding is introduced and discussed in the contemporary Anglo-Saxon literature.

Wilson claims that attention to metaphysical dependence, metaphysical determination as Raven puts it, or simply metaphysical grounding in Schaffer’s notion of the concept is not at all new. Metaphysicists have in common the fact that they have access to the same conceptual tools and methods, and not that they all tackle questions pertaining to the same position. It is the tools that shape systems, and not the systems that dictate which questions are posed, and which tools and methods are utilised. If we consider the kind of work that metaphysicists do, Wilson exemplifies, we will notice that a significant number of contemporary metaphysicists have dedicated their entire academic careers towards investigating metaphysical dependence for the purpose of building or assessing philosophical systems, and their constitutive elements, in ways that include, but are not limited to, modal and causal notions. Therefore, it is simply untrue that metaphysicists suffer from a kind of sweeping dogmatism that causes them to reject attempts which investigate inter-level metaphysics in a way which does not tread the beaten track.

Wilson claims that projects which have taken place in inter-level metaphysics have spanned from analyses of general philosophical theses, such as, physicalism, and the development and analysis of accounts of local phenomena, such as ‘events, properties, possible worlds, persons, objects, laws, causes, artifacts, institutions, and seemingly indeterminate states of affairs, among many others’, in terms of other more fundamental notions which we might assume ‘as a working, speculative, or antagonistic hypothesis’. (Wilson 2014) We can view metaphysical grounding as simply one way in which general philosophical theses and local phenomena have been tackled in the arena of inter-level metaphysics, but that is not to say that these questions have not been tackled before, or that they have risen to prominence through the popularity of metaphysical grounding. These concepts possess independent philosophical currency which they have earned through in debates which have revolved around the respective notions and concepts, and metaphysical grounding is but a new debate which includes them, but it is not a debate from which they originate.

Proponents of metaphysical grounding have suggested that familiarity of the relation of metaphysical grounding is partly due to the intuitive use of idioms of metaphysical determination and metaphysical dependence. Thus, when carrying out these projects, terminology such as *in virtue of*, *nothing over and above*, *grounded in*, is considered to indicate a specific kind of ‘unified’ relation which is metaphysical grounding. Wilson, however, objects that such idioms of metaphysical determination and metaphysical dependence are not employed to indicate a singular relation which is metaphysical grounding. Rather, they serve as schematic placeholders in place of *specific metaphysical relations*, viz., ‘small-g’ relations. Given that they could, for example, be used to indicate functional realisation it seems problematic to claim that metaphysical grounding has a terminological monopoly on such idioms. Idioms used in discussions in inter-level metaphysics can mean a variety of different relations and in the framework of these projects, what is at stake, then, is figuring out which relation can substitute the placeholder idiom that is being utilised precisely because it captures the metaphysical relation that is at stake. Just as it seems crude to claim that inter-level metaphysics was discriminated against in the 20th century, and metaphysical grounding has been the saviour of the field, by redeeming certain questions relating to metaphysical determination or dependence it appears crude to claim that the idioms used in discussion in inter-level metaphysics when discussing cases of metaphysical determination or metaphysical dependence are all questions of metaphysical grounding. Such statements are far too broad and general to be in any way useful. ‘Small-g’ relations capture diverse metaphysical relations and denote relations between fundamentality and are therefrom derived in diverse, but nonetheless, explanatory meaningful ways. They are far more contextually sensitive than metaphysical grounding and capable of discerning between various kinds of relations which may be occurring between two *relata*, unlike the sweeping implications of metaphysical grounding which has to function as a concept coarse enough to capture all these different relations, but fine enough to provide us with something in the way of explanation, unlike concepts such as supervenience or truthmaking.

Thus, Wilson grants that metaphysical grounding itself is a *new* concept, but that does not mean the notion of metaphysical dependence or metaphysical determination is new, nor that there has been no previous research on various relations which constitute inter-level metaphysics, if anything, the breadth and wealth of literature on metaphysical the precise opposite picture emerges. As Wilson herself admits, the first thrust of her argument is

somewhat prefatory, but it serves the important purpose of dispelling the myth that metaphysical dependence is a novel area of research and that metaphysical grounding is the harbinger of a paradigm shift in metaphysics, as it is evidently not such a thing. The importance of this step is, however, that it elevates metaphysical grounding to a position where we can evaluate the concept alongside all the other ‘small-g’ notions which accompany it in inter-level metaphysics. We should view it, thus, as a concept which is trying to do the same kind of work as other ‘small-g’ relations, that is, it is competing to successfully substitute the placeholder idioms we use in metaphysics in a way that actually denotes the metaphysical relation in question. *Nihil novi*.

Metaphysical Grounding is ‘Coarse-Grained’

Incidentally, the notion that metaphysical grounding is not the only player in the field of inter-level metaphysics, and that there are other relations in inter-level metaphysics, leads the proponent of metaphysical grounding into a rather serious conundrum. On the one hand, it has to be shown that metaphysical grounding can characterise difference accounts of metaphysical dependence, for example, eliminativist or emergentist accounts of metaphysical dependence. On the other hand, it also has to be able to somehow substitute ‘small-g’ relations which appear in accounts of metaphysical dependence. What has become clear from the rejection of the ‘just-so story’, that metaphysical grounding has appeared in a decontextualised vacuum, is that there are many other accounts and notions which revolve around the notions which have also found their way into metaphysical grounding. It is thus one thing to claim that we can enumerate a slew of examples which concern the same ‘status’, a specific kind of determination, which belongs to metaphysical grounding, but it is another to claim that all cases of metaphysical dependence and metaphysical determination are cases of metaphysical grounding. This raises thorny problems for metaphysical grounding as a ‘topic’ as we will now find out because it requires the attribution of such properties to metaphysical grounding which will not only overcome scepticism about the concept of metaphysical grounding, but will allow an uncontroversial allocation of cases to metaphysical grounding as well.

Underdetermination

Schaffer claims that there are many questions of the ‘status’ of metaphysical grounding which entails that there is a lot of ‘work’ for metaphysical grounding. Wilson objects that there is no ‘work’ for metaphysical grounding that is not already being executed over-and-above relations already utilised in inter-level metaphysics. As we have seen, Schaffer has argued that metaphysical grounding is capable of either tracking relations of metaphysical dependence between entities, or on the contrastive account, between facts. On either account, metaphysical grounding is supposed to be explanatorily useful, providing us with meaningful insight into the structure of reality. To this end, Schaffer draws up an Aristotelian method with its complementary diagnostics, which, fueled by the concept of metaphysical grounding, is supposed to adequately characterise both whether a specific entity exists and in what way it does so, to ultimately limn the structure of reality by elucidating the relations of metaphysical dependence present within them. Unfortunately, as Wilson argues, metaphysical grounding cannot do the kind of work that Schaffer would like to ascribe to it because the concept suffers from major *underdetermination*, which is to say that is it necessary to refer to other ‘small-g’ relations of metaphysical dependence for meaningful explication because metaphysical grounding itself is simply far too coarse-grained.

Wilson begins her argument for the underdetermination of metaphysical grounding with the supposition that metaphysical grounding might be doing some kind of work. This harkens back to our previous discussion of the virtue of positing metaphysical grounding over against the concept of supervenience. One of the main shortcomings of the concept of supervenience was its inability to provide something in the way of explanation. Wilson points to another problem with supervenience which is the notion that the concept of supervenience is inadequate in characterising metaphysical dependence because it is both compatible with with notions of ‘nothing-over-and-above’ and ‘clear over and above-ness’. That is to say, it cannot properly characterise metaphysical dependence because in and of itself the concept of supervenience cannot establish that the supervening phenomena are not phenomena of the same kind of category as the phenomena on which they supervene. So, for example, Wilson indicates and emergentist might claim that strongly emergent phenomena are ‘clearly over and above’ any physical state, even though the strongly emergent phenomena follow with

metaphysical necessity from certain physical states. Unlike the concept of supervenience, metaphysical grounding is supposed to be able to link strongly emergent phenomena with their physical states because it is not supposed to be compatible with both ‘nothing-over-and-above’ and ‘clear over and above-ness’.

Unfortunately, Wilson argues, there are two problems with the picture that metaphysical grounding does not suffer from the same kind of underdetermination as the concept of supervenience. Firstly, if we return to the case of strongly emergent phenomena we will notice that the fact that they are ‘clearly over and above’ physical states they cannot be metaphysically grounded in the physical states from which they follow. Nevertheless, strongly emergent phenomena can conceivably be in some way metaphysically dependent on physical states, in the sense that they are metaphysically determined by physical states, either partially or fully. Wilson claims that the relation which holds between strongly emergent phenomena and the physical states on which they are partially or fully metaphysically dependent would constitute an important fact about the structure of reality, but metaphysical grounding does not support these kind of relations, and therefore fails at providing us with important information regarding the structure of reality. Specifically, Wilson claims that metaphysical grounding fails to distinguish the difference there being no metaphysical relation at stake, and there being a metaphysical relation, but one which is ‘clearly over and above’. Thus, Wilson (2014) concludes that ‘Grounding, on its own, cannot distinguish between dependent and independent over and above goings-on, and so is unable to characterize appropriately metaphysical structure.’

The second problem with metaphysical grounding is that it suffers from underdetermination. On its own, Wilson claims, there are crucial questions pertinent to characterising metaphysical dependence and the structure of reality which metaphysical grounding cannot answer without further qualification based on the introduction of other concepts. Her argument for the underdetermination of metaphysical grounding runs as follows.

Wilson prefigures her discussion of the underdetermination of metaphysical grounding with the premiss that metaphysical grounding, or what she refers to as the failure of metaphysical grounding, leaves open ontological, metaphysical and causal questions about the phenomena that are metaphysically grounded, which are in fact the driving force behind typical investigations into metaphysical dependence. This is to say, metaphysical grounding

fails to meet to the standard purpose of investigations into metaphysical dependence in the form of questions, which are otherwise answered by ‘small-g’ relations. Worse, the questions which the underdetermination of metaphysical grounding leaves open are questions which Wilson believes are crucial to the metaphysical enterprise of investigating metaphysical dependence. If metaphysical grounding cannot provide an answer the questions which will be shortly discussed then not even basic insight can be gleaned about metaphysical dependence.

A major problem with metaphysical grounding is that it does not inform us whether the phenomena which is metaphysically grounded exists or not. Schaffer claims that metaphysical grounding is a relation between facts of any ontological category, and that questions of existence do not matter because Schaffer believes that permissiveness about existence guarantees the existence of all entities. The generation of existants is supposed to be held in check by the ‘clear formal constraints’ in the form of logical properties which Schaffer places on metaphysical grounding, and the diagnostics which Schaffer attributes to metaphysics. On its own, however, metaphysical grounding does not tell us whether the *relata* of a relation of metaphysical grounding do, or do not, exist. The relation itself is neutral on the existence of its own *relata*. Schaffer attempts to avoid this problem by taking on permissivism about existence which he claims is echoed in Aristotelian philosophy, and by claiming that the broader priority is that entities are metaphysically grounded on a sparse basis. Thus, more important than existence, is the formalism, the logical properties which underwrites metaphysical grounding.

Wilson takes issue with this kind of attitude. If metaphysical grounding is supposed to provide us with something in the way of explanation by indicating in what way relations of metaphysical dependence occur then the relation itself should already take a stance on what its *relata* are, at the very least, it should be capable of indicating whether its *relata* exist at all. Wilson (2014) claims that ‘naturalists do not care only about whether, for example, normative goings-on metaphysically depend on naturalistic goings-on: they also care about whether normative goings-on exist; about whether, if they exist, they are reducible or rather irreducible to (though still nothing over and above) naturalistic goings-on; about how exactly normative goings-on are related to naturalistic goings-on; about whether normative goings-on are efficacious and, if so, whether they are distinctively efficacious (that is, efficacious qua normative); and so on.’ There are a slew of questions that the naturalist might be interested in, and thus a concept of metaphysical dependence, which they would like to employ, is a

concept which takes a definitive stance on these questions and represents specific positions with regards to the relation between normative ‘goings-on’ and naturalistic ‘goings-on’.

The neutrality of metaphysical grounding on the questions mentioned above leads it to function as a schematic relation which in virtue of not being able to answer questions, that, for example, the naturalist might be interested in, counts as a concept which is underdetermined. Wilson claims that this seems like a reason to reject the notion that idioms of metaphysical dependence are specifically targeted towards metaphysical grounding. If this is the case then it also seems that there is little substance to claiming that metaphysical grounding has the property of being a logical primitive. For a concept to count as a logical primitive there cannot be any concepts which are more fundamental than the concept itself, and, furthermore, it has to be useful. Schaffer claims that metaphysical grounding is useful, but in the way in which he has formulated it, questions which, if Wilson is correct, are important to various positions, which employ relations of metaphysical dependence to unpack the idioms that they have used as place-holders, will find that the concept of metaphysical grounding itself does not provide them with any useful information.

Schaffer’s strategy to respond to this objection might be to somehow appease the naturalist with the aforementioned permissivism about existence, to downplay the underdetermination of metaphysical grounding, but, unfortunately, such a strategy succumbs to serious problems. Wilson (2014), objects to Schaffer’s strategy by putting her contention into a series of dilemmas:

Supposing Grounded goings-on are not (really) real: are they reducible to Grounding goings-on, or rather eliminable? If Grounded goings-on are (really) real, are they reducible to or rather distinct from (but still nothing over and above) the Grounding goings-on? Are Grounded scientific goings-on efficacious or not? Are they distinctively efficacious or not? Are un-Grounded goings-on to be eliminated or taken as fundamental?

As she notes, in order to answer any of these questions, Schaffer has to appeal to further controversial assumptions, such as a Moorean strategy to secure permissiveness about existence. What is most worrying about this consequence is that it means that what is advertised by Schaffer as the main ingredient in the schemata of metaphysics centred on the

Aristotelian method and organised around the idea of a diagnostics, viz., metaphysical grounding, is in reality incapable of acting as a foundational general resource. It is not self-contained insofar as it requires other conceptual crutches in order to function, and insofar it requires such crutches it cannot be foundational. Moreover, taking on further assumptions will necessarily specify the concept of metaphysical grounding, which will render it implausible in cases of metaphysical dependence. A unifying concept for relations of metaphysical dependence to do any work needs to be conceptually broad to capture the convergence, if there is any, of all the other ‘small-g’ relations, but at the same time specific enough to be meaningful. The problem with grounding is that it is essentially both. On the one hand, it is so broad, that it needs to be supplemented with satellite assumptions in order to do any meaningful metaphysical work, but on the other, as a result, it becomes so specific so as to no longer be able to do what it was purported to be able to do, that is, unify relations of metaphysical dependence. According to Wilson (2014), ‘small-g’ relations are in and of themselves heterogeneous, and the main upshot of their diversity is that they can be used across different contexts, and towards the same problems, to provide ‘*different* answers to the basic questions.’ With metaphysical grounding, however, Schaffer is trying to provide the same answer to all the basic questions, but that is not something that can be metaphysically done without specifying the concept.

In this way, Schaffer is left with two problems. On the one hand, Schaffer has to account for the multiplicity of necessary assumptions. On the other hand, he now has to defend the efficacy of the concept as it appears to be incapable of doing any serious metaphysical work on its own.

The Unifier

In the preceding discussion of Wilson’s objection it has become clear that metaphysical grounding suffers from chronic underdetermination with regards to providing something in the way of explanation in cases of local phenomena. Schaffer, however, claims that metaphysical grounding is applicable not only to such metaphysical investigations, but metaphysical grounding also functions as a relation which can unify the ‘small-g’ specific relations in inter-level metaphysics. Schaffer claims that such a unification would be both

terminological and formal. So, for example, in Schaffer (2009) he suggests that various cases of identity are homonymous to metaphysical grounding. Unfortunately, Wilson objects to Schaffer on this point as well. According to Wilson (2014), ‘One basic problem with these suggestions is that, even granting that the specific relations are unified in any or all of these ways, nothing directly follows about whether or not a distinctive relation should be posited as the metaphysical locus of the commonalities at issue.’ Wilson argues that even if assuming that ‘small-g’ metaphysical relations do have something in common, the question arises, why we ought to think that there is a distinctive, moreover, primitive, concept, such as metaphysical grounding which does the unifying. Worse yet, it is not even clear what ‘small-g’ metaphysical relations could have in common other than sharing the same moniker.

Wilson argues that ‘small-g’ relations are disunified and that there is no common term and formal structure which is shared by all ‘small-g’ relations. In cases of metaphysical dependence various idioms are utilised in order to denote a range of distinct different dependencies and thus there is hardly one common term that one can speak of. Indeed, Wilson (2014) wonders ‘What exactly is supposed to be in common among type identity, token but not type identity, the classical mereological part/whole relation, alternative (e.g. causal compositional) understandings of the part/whole relation, functional realization, the set membership relation, the proper subset relation, the determinable/determination relation, and other relations that have been profitably appealed to in specific investigations into metaphysical dependence of the nothing over and above variety?’ She grants that all these relations can function as ‘small-g’ relations but how and whether they do will depend on a number of assumptions which are not spelt out by the concept of metaphysical grounding itself.

A way in which we could view ‘small-g’ relations as being unified is through commonalities in their respective ‘topics’, so whether they are formally equivalent in sharing the same logical properties. Schaffer puts forth reflexivity, asymmetry and transitivity as the logical form of metaphysical grounding. These logical features, however, do not appear to be shared by all ‘small-g’ relations. Wilson grants that there are some that do, such as proper parthood, but she quickly notes that reflexivity, asymmetry and transitivity are also the features of any strict ordering relation, for example, causation. In this vein there are ‘small-g’ metaphysical relations which do not share these features, as in the case of set membership which is not transitive. With Schaffer’s revised position, however, metaphysical grounding is

even more vulnerable, as asymmetry and irreflexivity are formal features shared by comparatively more relations.²⁹ Worse, Wilson argues that we have good reasons to believe that the logical property of irreflexivity is not a property common to ‘small-g’ relations, and furthermore, that relations of metaphysical grounding might be symmetric, rather than asymmetric.

Discussion

Starting with the ‘Trinity’, metaphysical grounding has enjoyed explosive interest which has spurred it on to develop into a reputable concept in the field of inter-level metaphysics causing it to acquire philosophical currency. The rise of metaphysical grounding has been accompanied, however, by scepticism as well. The literature sceptical about metaphysical grounding includes a family of objections based on the notion that metaphysical grounding is too ‘coarse-grained’, the core of which I have discussed in this section. From the picture which has emerged out of my discussion of Wilson we have seen that there are important questions relating both to the ‘topic’ about and ‘status’ of metaphysical grounding. The underdetermination of metaphysical grounding which results from the grainy nature of the concepts brings up at least three problems for accounts of metaphysical grounding, such as those found in Fine (2001), Schaffer (2009), and Rosen (2010). Firstly, what is the ‘status’ of metaphysical grounding? Secondly, what are the metaphysical relations that metaphysical grounding is supposed to unify? Thirdly, what are the logical conditions necessary for metaphysical grounding to be able to unify all the heterogeneous metaphysical relations?

Wilson argues that metaphysical grounding is an unsatisfactory concepts in respect to all three questions. Since metaphysical grounding appears to be so underdetermined, it does not seem to be of much use with regards to local philosophical phenomena. After all, when we employ metaphysical concepts it does seem like we want the concept that we are using to provide with certain kinds of information, for example, the status of existence of the *relata* in question.

²⁹ A further worry is that since asymmetry entails irreflexivity, the claim that ‘small-g’ relations are unified basically means that all ‘small-g’ relations for Schaffer are asymmetric, but as Wilson (2014) points out, Thompson and Barnes have given a number of candidate examples of mutually metaphysically dependent goings-on, concluding that metaphysical dependence is non-symmetric’, which if right, strips away yet another formal feature from metaphysical grounding.

In the field of inter-level metaphysics there also seems to be a plurality of heterogeneous metaphysical relations which do not necessarily have anything in common. Thus, in order to develop an account of metaphysical grounding, the metaphysicist would need to weave a story about metaphysical relations in such a way as to indicate what kind of metaphysical relations there are and, consequently, to show how those features collapse on metaphysical grounding. If this really were the case it would seem that such a conclusion is something that should follow fairly straightforwardly from the concept of metaphysical grounding. Unfortunately, the concept of metaphysical envisaged by Schaffer is problematic in this respect. There is nothing about metaphysical grounding which tells us what kind of metaphysical relations there are, so in order to fuse other metaphysical relations with metaphysical grounding we can only do so either by appeal to the logical properties of metaphysical grounding, or by tailoring metaphysical relations so as to be compliant with metaphysical grounding which could not only be seen as a tendentious interpretation of metaphysical relations, but also as increasing the ideological overhead of the concept of metaphysical grounding. An account of metaphysical grounding would have to include a revisionary story about metaphysical relations over and above an application of metaphysical grounding with regards to metaphysical relations and thence further inflating the concept of metaphysical grounding because the truth of the matter is that the concept of metaphysical grounding as it is is not capable of establishing which relations collapse on it.

On the other hand, even if we assume that the plurality of heterogeneous metaphysical relations is somehow importantly unified and collapses on metaphysical grounding, it seems difficult to provide a logical basis for such unification because not all metaphysical relations share the same logical properties. As we have seen in the discussion of Wilson's objections that metaphysical grounding is too 'coarse-grained' the various relations utilised to indicate metaphysical dependence do not seem to have anything in particular in common, aside from the moniker that we attribute to them and even the idioms we use to indicate cases of metaphysical dependence are not importantly unified. This leads the proponent of metaphysical grounding into the conundrum of adjusting the logical properties of metaphysical grounding, thus diminishing the uniqueness of metaphysical grounding, or giving up the notion that metaphysical grounding is in whatever way a unifier for the 'small-g' relations which we otherwise encounter in inter-level metaphysics.

These problems, that have cropped up in our discussion of Wilson's objections, most importantly, raise a very concerning problem about the 'topic' of metaphysical grounding, namely, whether there is any basis to postulate metaphysical grounding as a logical primitive. In objecting to metaphysical grounding, Wilson shows that the concept of metaphysical grounding is simply unsuited to do any kind of 'work' because it is far too general of a notion to say anything that is in any way useful, such as providing us with something in the way of explanation. It seems like if we want to acquire some kind of information we are better off utilising one of the 'small-g' relations she indicated because in spite of being so 'fine grained' as to only apply to specific cases of metaphysical dependence, in the cases which they do apply to there they provide us with useful information. There does not seem to be a basis from which we could argue that metaphysical grounding has the logical property of primitivity. It does not perform any significant 'work'. It is not a constitutive element for other relations of metaphysical dependence. It cannot in any effective way unify the various 'small-g' relations we encounter in inter-level metaphysics. Schaffer reads metaphysical grounding as being the relation which fixes the direction of priority when he discusses the Aristotelian notion of natural priority, in the form of primary and secondary substances. Wilson (2014), however, dismisses the notion saying:

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

A consequence of Koslicki and Wilson's objection from 'graininess' has been that the 'naive' positions found in Fine (2001), Schaffer (2009), and Rosen (2010) have been deemed unsatisfactory, and the emphasis within debates about metaphysical grounding has shifted from developing accounts about further applications of metaphysical grounding, to assessing

and improving the foundational aspects of metaphysical grounding.³⁰ In this sense, we can speak of the state-of-the-art of metaphysical grounding being characterised by the search for ‘new work’. (Raven 2017) Unfortunately, these criticisms have shown quite deep flaws in the concept of metaphysical grounding, and as we will now find out, adjustments which Schaffer has made to try to respond to these objections have not managed to redeem the concept.

4. The New Problems of Metaphysical Grounding

In the preceding section, objections by Wilson to Schaffer’s concept of metaphysical grounding were discussed. What has become apparent from my discussion of Wilson’s objections that metaphysical grounding suffers from underdetermination which leads it to be a ‘coarse-grained’ concept. This has an effect on both the ‘status’ of and the ‘topic’ about metaphysical grounding. Wilson argues that the logical properties which are attributed to metaphysical grounding by Schaffer turn the concept into one which is so general that the ‘status’ of metaphysical grounding has no clear range of application. Instead, it seems preferable to utilise other relations, what Wilson refers to as ‘small-g’, which the metaphysicist already possess in his conceptual toolkit to answer determinative questions which Raven has suggested, questions which contain the idiom ‘grounded’, such as in Schaffer’s question of what is metaphysically grounded in what, or questions of metaphysical dependence. Such scepticism about the ‘status’ of metaphysical grounding leads to problems concerning the ‘topic’ about metaphysical grounding as well. Metaphysical grounding *qua* ‘topic’ is typified by the fact it contains a number of logical properties, notably, logical primitivity. However, postulating a concept as a logical primitive is quite burdensome and thus requires a fair amount of motivation. This motivation is provided through its conceptual necessity, exemplified in the ‘status’ of metaphysical grounding. Unfortunately, Wilson’s objections that metaphysical grounding is too ‘coarse-grained’ to have a unique ‘status’ because there are no metaphysical questions which are covered only specifically by metaphysical grounding, and no other relation, undermines the motivation for postulating metaphysical grounding as a logical primitive.

³⁰ c.f Schaffer (2016a, 2016b)

In this section, I will turn to a discussion of further problems which have appeared to Schaffer's (2016a, 2016b) attempts to respond to Wilson's (2014) objections by turning to a discussion of Wilson (2016a) wherein she argues that Schaffer's two new arguments for metaphysical grounding, viz., 'The Unity Argument' and 'The Priority Argument', both fail to redeem metaphysical grounding as a logical primitive.

The Failure of Two Arguments for Metaphysical Grounding

Since there are already a number of substantive accounts of metaphysical dependence, Wilson (2016a) decries the argument that the failure of concepts compatible with empirical notions such as supervenience leads directly to the postulation of a new metaphysical relation which has the property of being a logical primitive. Similarly, Schaffer's appeal to Aristotelian notions is left wanting. Wilson claims that Aristotle operated with a number of 'small-g' relations, which he applied differently, in different cases, thus undermining the notion that Aristotle conceived of a 'big-G' relation such as metaphysical grounding which he utilised ubiquitously when discussing cases of what we could conceive as metaphysical dependence or determination. The problem is that 'investigations' into the metaphysical dependence 'largely and crucially proceed by considering what implications a given small-g relation has for the existence, distinctness, efficacy, and so on, of the goings-on whose status as dependent is at issue (as per usual: against the backdrop of some presumed more fundamental base).' (Wilson 2014) This is why, Wilson claims, the primary positions in debates about general philosophical theses which tackle local phenomena will depend on the kind of answers they provide to questions about local phenomena. So, for example, within the general philosophical thesis of physicalism Wilson claims that we can distinguish between all sorts of varieties of physicalism reductive and non-reductive physicalism, eliminativism, epiphenomenalism, strong emergentism, which all crucially depend on the kind of answers they provide to the status of local phenomena, such as the way in which the mental realm does or does not depend on the physical realm, and the kind of answers they crucially provide depends on which 'small-g' metaphysical relations that they appeal to.

Unfortunately, as a primitive concept, Wilson argues, metaphysical grounding is far too abstract to take up the role of providing answers to such questions. Thus, Wilson is

discontent that if we ponder whether the realm of the mental depends or not on the physical realm, metaphysical grounding in and of itself provides us with little information in the way of explanation. It does not result in any particular version of physicalism because it does not, in and of itself, result in any specific kind of physicalism. It does not even inform us why something should be metaphysically grounded on one thing, rather than not. All that follows from metaphysical grounding as a concept is based on the kind of logical properties that it has. Thus, for Wilson, unlike what is postulated by proponents of metaphysical grounding, there is nothing revolutionary about the concept of metaphysical grounding because there is not revolution to speak of. What is at stake, rather, is whether there is any point at all to posit metaphysical grounding as a relation over and above the relations metaphysicists already peruse when they investigate questions in inter-level metaphysics.

The Unity Argument

In the preceding section we have touched on Schaffer's notion that metaphysical grounding can function as a unifier for all the diverse 'small-g' metaphysical relations. After Wilson's (2014) objection that not all 'small-g' relations share the same logical properties Schaffer has dropped the notion that the various 'small-g' relations are unified in virtue of having the same logical properties, which collapse on the concepts of metaphysical grounding. Instead, Schaffer (2016a) has suggested that metaphysical grounding can be unified by taking into accounts the 'lessons' that he has learnt from Wilson (2014), which have rendered metaphysical grounding vulnerable to objections from underdetermination, ascribing to it the notion that it is too 'coarse-grained' to be useful in answering crucial questions about the status of the *relata* in relations of metaphysical grounding. His suggestions can be divided into three distinct proposals which together yield a 'new unification strategy'.

Firstly, Schaffer (2016a) suggests that we follow the maxim 'let the best formalism decide' to arbitrate whether we should postulate a concept which will unify various metaphysical relations. Thus, Schaffer believes that the best way to decide whether positing a general notion is warranted by following a principle which dictates that we ought to attempt to construct the best kind formalism we can for a concept which we would like to support.

Schaffer claims that if there is no meaningful concept at stake then we will not be able to create a concept with a distinct formalism. Should there not be a meaningful concept then this will show up in the need to divide the concept into more specific concepts. The need to distinguish between them will be based on the kind of formalism requisite for those properties and in this way distinctions can be drawn between various concepts. However, if in the processing of attributing logical properties to a concept in order to unify it we arrive at a ‘clear and precise’ set of logical properties then Schaffer believes that it is ‘a good sign that there is a single unified concept.’ (Schaffer 2016a)

Secondly, Schaffer (2016a) responds to Wilson’s (2014) objections that metaphysical grounding is an underdetermined concept because it does not specify the status of the *relata* of relations of metaphysical grounding, such as the existence, distinctness, and the efficacy of the facts which are metaphysically grounded. Schaffer claims that it follows by means of ‘conceptual entailment’ that the facts which are metaphysically grounded are existants and are clearly differentiated from the facts which metaphysically ground them. The conceptual entailment of metaphysically grounded facts is complemented by the notion of ‘conceptual exclusion’ which is the idea that the causal status of metaphysically grounded facts, as in some way efficacious, is in an appropriate way left undetermined.

Thirdly, Schaffer believes that a lesson learnt from Wilson’s (2014) objections is that the kind of formalism which he attributed to metaphysical grounding had been inadequate and that it needs to be supplanted with something more precise. Thus, Schaffer introduces the apparatus of structural equation models to distinctly characterise the relations of metaphysical grounding. Schaffer believes that patterns of counterfactual dependence can be made salient if we model cases of counterfactual dependence, and his motivation for doing so is as follows. Schaffer believes that it is possible to re-create for metaphysical grounding the same kind of unity-based motivations which we supposedly can encounter in proposals for a general notion of causation. Specifically, Schaffer believes that similarly to how a structural equation models framework specifies more than a one-to-one correlations between events, allowing further functions which maps a range of values embedded in a correlation onto a range of other values, creating a pattern of dependence. Wilson (2016a) understands such patterns of dependence in the following way: ‘On the [structural equation models] framework, such patterns of dependence are represented via structural equations specifying how the value of a given (endogenous) “child” variable is determined as a function of the

values of certain (exogenous) “parent” variables (e.g., one linking an independent variable representing cigarettes per day with a dependent variable representing cancer risk); these functional dependencies then constitute pattern-based information about “how exactly” cause and effect are related.’

Schaffer believes that structural equation models can be utilised to create an analogous function not to the one encountered in causal instances, but for instances of metaphysical grounding instead. Claims of metaphysical grounding could be embedded in the formalism of structural equation models to contain a function which maps a number of values onto another range of values. In fact, the differences between causal modelling and metaphysical grounding are minimal and thus, Schaffer claims, metaphysical grounding is embedded in the formalism of structural equation models in an analogous kind of way to causation, though he does include a number of caveats to separate metaphysical grounding from the notion of causation. Schaffer claims that, by implementing the structural equation models formalism into the formalism of metaphysical grounding, he has learnt a lesson from Wilson’s objections to metaphysical grounding. He now believes that an account of metaphysical grounding must provide us with something more precise than the notions that two facts are metaphysically grounded in each-other, in virtue of answering ‘what metaphysically grounds what’. Instead, the concept of metaphysical grounding has to include more ‘ideology’ so as to be able to clearly state how the relation of metaphysical grounding functions. Thus, on Schaffer’s new proposal metaphysical grounding includes something more in its ‘topic’, aside from the logical properties which have been discussed at length in this essay, namely a formalism which allows us to model relations of metaphysical grounding by spelling out the rule mapping which connects the metaphysically grounded fact to the fact which it is metaphysically grounded in. Schaffer’s inclusion of structural equation models is the driving force behind his new proposal to conceive of metaphysical grounding as a ‘small-g’ unifier because he claims it can embed cases of specific ‘small-g’ metaphysical relations. Schaffer’s (2016a) upshot is that because the inclusion of structural equation models does not require distinct coloured arrows for respective flavours of metaphysical dependence, which he claims is a strong and defeasible indicator of the notion that metaphysical grounding is a unifying concept, after all.

Thus, as Schaffer claims, relations of metaphysical dependence can be ‘best’ modelled through the formalism of structural equation models in a manner which does not

violate the conceptual entailments and exclusions of particular metaphysical concepts, and by specifying exactly how patterns of metaphysical dependence take shape the kind of unity that structural equation models leads to collapses on the concept of metaphysical grounding. Wilson (2016a) summarises these previous points I have discussed into a clear argument:

- (1) If some phenomena are aptly formally unified, then this provides strong (albeit defeasible) reason to posit a unifier. ('let the best formalism decide')
- (2) The diverse (small-c) causal relations are aptly formally unified by the [structural equation models] framework.

Therefore, there is strong (albeit defeasible) reason to posit a general notion of causation.

- (3) The diverse (small-g) grounding relations are just as aptly formally unified by the [structural equation models] framework as the diverse (small-c) causal relations.

Therefore, there is strong (albeit defeasible) reason to posit a general notion of Grounding.

Problems

In this subsection I will briefly discuss why Wilson thinks that each of Schaffer's premisses are false, thus leading to the conclusion that Schaffer's conclusion is false, as well.

Firstly, Wilson questions (1) arguing that the fact that a number of different phenomena can be formally unified does not entail a strong and defeasible motivation for postulating a unifier. A case she discusses relates to the distinction between determinables and determinates. So, Wilson claims, the metaphysicist can have notions and concepts for determinables, and if we assume that determinables are irreducible concepts we could formally unify diverse determinates so as to constitute general determinables. Wilson demurs, however, that the ability to unify diverse determinates, so as to constitute general determinables, do not seem to imply as a strong and defeasible reason for postulating general determinables. In fact, it's quite the opposite. According to Wilson, treatments of

determinables are most commonly motivated by deflationary sentiments, as in the cases of anti-realism or reductionist positions. On neither of these postulations is there more ideology added to general determinables on top of the notions or concepts already present in determinatives, in the case of anti-realm the determinables somehow schematic follow from determinates and in the case of reductionism they will follow from the disjunctions of determinates.

Wilson claims that the main reason why the notion of formal unity as a strong and defeasible motivation for the postulation of a general unifier is unpopular is because it violates commitments to parsimony. The driving force behind Ockham's Razor is the intuition that if two phenomena can be accounted equally well by the same kind of theory, than the one that relies on fewer commitments, or ideology, is to the preferable one because it is more parsimonious. Wilson believes that sentiments of parsimony are applicable to the notion of postulating a general unifier as well. If it is unnecessary, then there is no reason to postulate it. Such commitments are one which precede any notion of a defeater because the methodological force of Ockham's Razor lies not in its function as a defeater, but as a general rule for conducting metaphysics, which is to say parsimony about metaphysical commitments bears priority over parsimony about individual notions and concepts.

Secondly, Wilsons objects to (2) claiming that Schaffer's claim that 'small-c', viz., diverse notions of causal connections are somehow unified by structural equation models, is false. Schaffer (2016a) claims that the driving notion behind the unification of 'small-c' relations is that there are diverse causal relations, i.e., 'baking, waking, making', but Wilson does not think that these causal relations are comparable, or relevant to the kind of relations which constitute 'small-g' relations. The latter is constituted by a diverse set of distinct kinds of metaphysical relations and it is not at all clear whether they can be in any useful way unified. Nevertheless, if it were to be the case that 'small-g' relations could be unified on the basis of the formalism of structural equation models then that would need to occur on the basis of the success of the unification of 'small-c' relations. This, however, is something that Wilson believes does not work because it is not at all clear that 'small-c' relations are unifiable in the first place, and thus whether the formalism of structural equation models can accomplish such a goal. For structural equation models to be able to be applied to 'small-g' relations it would have to 'formally unify all candidate forms of causation, which include (among other contenders) regularity or nomological sufficiency accounts (on which causation

is a matter of instantiation of a causal law), dispositional essential accounts (on which causation involves the manifestation of a disposition), transference accounts (on which causation involves the transfer of a conserved quantity), and counterfactual accounts (on which causation is tracked by certain counterfactual dependencies).’ (Wilson 2016a)

On top of the problem of unifying these ‘small-c’ relations there is a more fundamental problems which plagues the motivation for postulating structural equation models as a unifier for ‘small-c’ relations, namely, there seem to be at least two distinct and incompatible notions of causal relations, where we can distinguish between ‘causation as production’ and ‘causation as dependence’.³¹ The former covers notions such as regularity, transference and accounts based on notion of ‘powers’, while the latter broadly concerns counterfactual accounts. The problem with structural equation models is it does not attempt to unify these two distinct notions of causal relations, and that it focuses on the notion of causal relations *qua* counterfactual dependence, which does not include the notion of causation *qua* production. As Wilson points out, this is due to the nature of structural equation models, which are based on the intuitions behind accounts based on counterfactual dependence, namely, that different causes lead to different effects, and thus if we counterfactually ‘wiggle’ the cause, the effect will ‘wiggle’ as well.

Thirdly, Wilson claims that (3) is not only undermined by the aforementioned problems for (1) and (2), but there are further problems which ought to lead us to decry the falsity of (3) as well. It seems suspect that structural equation models can fulfill Schaffer’s notion of unifying the diverse ‘small-c’ relations, but even if we could utilise structural equation models for the purpose of doing so, according to basic sentiments related to parsimony, it would seem that we should sooner attempt unity in deflationary terms, rather than inflationary ones. Undermining (1) and (2), undermines (3) as well, because if the formalism structural equation models does not adequately unify ‘small-c’ relations, then it calls into doubts whether it can unify ‘small-g’ relations, either. It might be that just as the formalism of structural equation models suffers from shortcomings in unifying ‘small-c’ relations, it faces trouble in unifying ‘small-g’ relations as well.

We might still wonder whether (3) can independently support the notion that the formalism of structural equation models can unify ‘small-g’ metaphysical relations without an appeal to premisses (1) and (2), and consequently, to the objections that Wilson has

³¹ c.f. Hall 2004

suggested. Since the intuition behind the formalism of structural equation models is based on the notion of ‘wiggling’, transposed onto ‘small-g’ relations, the idea would be that facts which are metaphysical grounded would have to be in a counterfactual dependence relation with facts which metaphysical ground them. So, ‘wiggling’ the facts which are metaphysical grounded should result in the facts which metaphysically ground them ‘wiggling’ as well. In what follows I will discuss some aspects of Koslicki (2016) which form the main thrust of Wilson’s objection to premiss (3).

In Koslicki (2016) the counterexample is set up, wherein we pretend to want to model the dependence relation between general determinables and local determinates on the assumption that reality at its fundamental level is fully metaphysically determined. As a case of such a counterexample, Koslicki suggests, we would like to model the relation of synchronic metaphysical dependence between a shirt being red metaphysically depending on a shirt being maroon. It would seem that there is not a counterfactual dependence relation at stake in the example given by Koslicki because it would seem that the counterfactual dependence which we could construct on the preceding example, viz., a shirt being red depending on it being maroon, would amount to the counterfactual conditional: if a shirt were not to be maroon it would not be red, which is false because in terms of modal proximity in the nearest possible worlds the determinate of red would simply be something else. This example, however, can be embedded into a structural equation model, where Koslicki attributes determinates to exogenous variables and determinables to endogenous variables. Furthermore, Koslicki attributes values such as crimson, maroon, and navy to the exogenous variables; and she attributes values such as red, and blue, to the endogenous variables. Structurally, for example, the values of maroon and red are equated, and the values of navy and blue are equated.

After having set up the preceding counterfactual, Koslicki finds that there is reason to doubt whether the structural equation model which we have set up embeds the metaphysical relation between a shirt having a determinate shade adequately models in a shirt having a determinable colour in the way that Schaffer believes that it does. If we were to set the value of ‘maroon’ to ‘zero’ it would not be specified whether the value ‘crimson’ should be set to ‘one’. As a result, it would not follow we formulate a definition of a structural equation which sets the value ‘one’ to ‘red’ whenever ‘zero’ is set to the value ‘maroon’ because it is conceivable that in the case which we have just set up a shirt might actually be ‘red’ in virtue

of having the value ‘crimson’ instead of ‘maroon’.³² This conclusion results in a counterexample to Schaffer’s notion that ‘wiggling’ the facts, which are metaphysically grounded, should result in the facts, which metaphysically ground them, to ‘wobble’ as well because we can imagine a case in which we ‘wobble’ the fact which metaphysically grounds, so the colour of a shirt, by conceiving of the colour of the shirt as changing from one colour to another, however, crucially, ‘for in a case in which we “wobble the ground” by imagining the shirt’s color to be changed from maroon to crimson, say, it is not the case that thereby “the [metaphysically] grounded wobbles” as well, since the shirt continues to be red, only in a different way’. (Koslicki 2016)

While there is more to be said about the nuances of Wilson’s objection to (3), specifically, in the way she fleshes out some nuances about Koslicki’s objection, those points are ones which are instructive, but not dialectically necessary for further discussion. I will conclude Wilson’s (2016a) objection to (3) with the following summary:

‘Ultimately, then, the SEM framework does not aptly model the metaphysical dependence of determinables on determinates, since gaining the requisite counterfactual dependence requires an appeal to coarse-grained contrast classes that may be either conceptually unavailable or metaphysically impossible. But, as Schaffer grants, one might well maintain that determinables metaphysically depend on determinates. Hence, the SEM framework does not formally unify (all) the small-g relations, and premise (3) is false.’

These three objections raise serious questions for Schaffer’s arguments for the application of structural equation models for the purpose of building an argument which is supposed to show that metaphysical grounding can function as a unifier for the diverse ‘small-g’ relations which metaphysicists peruse in inter-level metaphysics.

³² c.f. Koslicki (2016) for a more precise discussion of this objection.

The Priority Argument

There remains the second argument which Schaffer (2016a) puts forth to support the concept of metaphysical grounding and that is the notion that metaphysical grounding is necessary to fix the direction of the priority of ‘small-g’ relations because, in and of itself, ‘small-g’ metaphysical relations are incapable of doing so. So, for example, in the case of the metaphysical relation between a ‘part’ and a ‘whole’, the relation itself does not specify whether the ‘whole’ depends on the ‘part’, or whether the ‘part’ depends on the ‘whole’. This is another avenue which Schaffer utilises in order to maintain that metaphysical grounding is a useful concept, and therefore warrants being posited as a logical primitive. In Wilson (2014), Wilson concedes that indeed in certain cases it would appear that a primitive notion is necessary in order to fix the direction of priority, but she believes that metaphysical grounding is not the concept which we should postulate, rather we should denote ‘fundamentality’ as having the property of being a logical primitive.

According to Wilson, there are two principles cases where we might want to establish what the direction of priority is, viz., when a metaphysical relations links a fundamental fact to a non-fundamental fact, and when two non-fundamental facts are linked together by a metaphysical relation. In the case of the first Wilson claims that metaphysical grounding is not necessary in order to fix the direction of priority because it follows naturally from a relation between a fundamental fact to a non-fundamental fact that the priority flows from fundamentality towards non-fundamentality. Thus, for example, the physicalist fundamental facts are usually assumed to be maximally determinate, and as a result, determinables of these facts will be non-fundamental. Wilson suggests that the fundamental, rather than a fact which is not metaphysically grounded in anything else, should rather be viewed as a logical primitive which is metaphysically neutral. The problem with defining fundamentality in terms of metaphysical grounding is that such an account of fundamentality denotes basic entities in relationally negative non-basic terms and excludes ‘live’ metaphysical positions which conceive of the possibility of the fundamental being in a relation which would essentially metaphysically ground itself, or of the fundamental being in a relation in which facts are mutually metaphysically grounded. These considerations lead Wilson (2016a) to the slogan ‘if anything is fundamental, it [is] the fundamental!’.

Even though Wilson (2016a) suggests positing the fundamental in primitive terms, such a notion is far less limited than a posit of metaphysical grounding because ‘Although the fundamental is primitive, we can say more about this notion; namely, that it follows from what goings-on are fundamental at a world that these, individually or together, provide a ground (*nota bene*: in one or other small-g fashion) for all goings-on at the world.’ In this way we have a conceptual tool to encode various intuitions the metaphysicist might have about the fundamental, such as in terms which cropped up in our discussion of Schaffer’s notion of primary substances, where we noted that such substances are all the substances which God would have to create in order to create a superstructure of secondary substances, thus relegating the status of the former to fundamentality, and conceiving of secondary substances as metaphysically grounded in primary substances. On Wilson’s account primary substances can still be conceived of as the fundamental, so to speak, but by attributing primitivity to fundamentality, primary substances acquire the status of being primitive, and standing in specific ‘small-g’ relations to other facts, which on the whole seems like a plausible picture, which does not seem to need to postulate a new concept, viz., metaphysical grounding, and thus coming off as more parsimonious.

The last point that we need to touch on is whether metaphysical grounding is necessary to fix the direction of priority in the case of relations between two non-fundamental facts. In such cases Wilson grants that the specification of the fundamental will not necessarily carry over into a conclusion about the priority of two non-fundamental facts. Here, too, however, Wilson believes that we can appeal to standard metaphysical practice. Investigations into relations of metaphysical dependence between non-fundamental facts rests on the possession of relations between fundamental and non-fundamental facts, which must be at least somewhat specific, because, Wilson claims, the distinction between a relation between a fundamental fact and a non-fundamental fact come prior to relations between two non-fundamental facts. This is to say, in order for there to be relations between two non-fundamental facts, there first must be relations between fundamentals facts and non-fundamental facts. So, treatments of relations between non-fundamental facts will appeal to ‘small-g’ relations, as those are the relations which will function in the prior case of linking fundamental facts to non-fundamental facts. There is nothing, however, stopping the ‘small-g’ relations from including suppositions or associated facts about the metaphysical relations which occur between two non-fundamental facts, and in this way specifying in

which way the direction of priority flows between two non-fundamental facts. In fact, to some extent this will simply be a natural extension of cases in which ‘small-g’ relations link a fundamental fact to a non-fundamental fact. Of course, the way that this can be achieved will depend on one’s sentiments and commitments, but the bottom line, again, is that rather than postulating a new concept, we can make-do with the concepts and metaphysical relations we already possess, viz., ‘small-g’ metaphysical relations. As Wilson (2016a) concludes: ‘on the primitive fundamentality framework, facts about what is (or serves as) fundamental, coupled with the holding of diverse small-g relations, determines what is non-fundamental; these facts, coupled with facts about the natures of the non-fundamenta and how the non-fundamenta stand to one another, determines priority relations between non-fundamenta (if such there be, in a given case).’

Thus, we do not need to appeal to metaphysical grounding.

Discussion

In this section a number of issues were touched upon, mostly of a dialectical nature. After Wilson’s (2014) initial salvo of objection it became apparent that metaphysical grounding suffers from a number of shortcomings which required addressing in order to preserve metaphysical grounding as a useful concept driven by a sound nation. In response to Wilson’s claims that metaphysical grounding is, basically, useless, Schaffer (2016a) attempted to redeem the concept of metaphysical grounding by improving an argument he had previously used to forward metaphysical grounding, viz., the notion that metaphysical grounding can function as a unifier, and by improving the formalism of metaphysical grounding so as to deal with the impression that metaphysical grounding is too ‘coarse-grained’ in virtue of suffering from chronic underdetermination.

In light of our discussion of Wilson (2016a) and Koslicki (2016) it has become apparent that Schaffer’s attempt to respond to Wilson’s (2014) objections have, in a way, only postponed some of the problems which Wilson put forward against metaphysical grounding. Schaffer’s notion that more precise formalism can dissolve worries about underdetermination has been shown to be equally problematic because it seems to be just another feature about the ‘topic’ of metaphysical grounding which is underdetermined as

well. After all, structural equation models, neither seem to manage to unify ‘small-g’ relations, as Schaffer claims that it would, nor does the formalism itself unequivocally establish relations of metaphysical grounding, thus only making the problem of the underdetermination of metaphysical grounding more sophisticated, and ideologically complicated in terms of the ‘topic’ of metaphysical grounding.

Schaffer’s second motivation for metaphysical grounding seems to be equally problematic because it seems there are alternative ways to fix the direction of priority in cases of metaphysical dependence which, crucially, do not depend on the notion of introducing the concept of metaphysical grounding. We can, for example, postulate ‘fundamentality’ as a logical primitive and consequently view the ‘small-g’ relations which metaphysical grounding was supposed to both unify, and fix the direction of priority for, in terms of their relation to the fundamental. This is a contention which seems plausible enough because denoting the relation between fundamental facts and non-fundamental facts is technically what they are meant to be used for. Attributing logical primitivity to fundamentality in this sense seems more plausible than postulating metaphysical grounding because it not only provides an uncontentious way of indicating priority in cases of relations of metaphysical dependence between fundamental facts and non-fundamental facts, but it also seems to provide something in the way of discussing priority relations between non-fundamental facts. Moreover, even if it is not possible to fix the direction of priority based on conceptual spillage from the relation between fundamental facts and non-fundamental facts, then there is nothing stopping us from adjusting the concepts of ‘small-g’ relations, which we already have in our possession, so as to be able to account for the direction of priority in cases of metaphysical relations between non-fundamental facts.

5. A Deflationary Proposal for Metaphysical Grounding

So far the picture which has emerged has been unfavourable towards Schaffer’s notion of metaphysical grounding, as he has not seemed to put forward a concept which can defend itself against the objections about the ‘topic’ and ‘status’ of metaphysical grounding put forth by Wilson (2014, 2016a) and Koslicki (2016) without appearing disingenuous. In this section I will pause to consider a different strategy for responding to Wilson’s and

Koslicki's objections that metaphysical grounding is too 'coarse-grained' other than by appealing to further formalism. Unlike Schaffer's (2016a) notion that metaphysical grounding can be redeemed as a concept if the concept is re-engineered to include 'better' formalism, I will consider a strategy which attempts to maximally deflate the concept of metaphysical grounding, back to a general notion of 'grounding'. This strategy is inspired by Wilson's objection that if we are to pursue metaphysical unity we should do so in deflationary terms, but that Schaffer, through the concept of metaphysical grounding and the inclusion of further formalism in the form of structural equation models, has only managed to further inflate not only inter-level metaphysics but also his own concept without actually solving any of Wilson's objections.

Notably, Dasgupta (2017) has suggested that 'grounding' from a deflationary concept has become a concept which is extraordinarily inflated, for example in the form of metaphysical grounding which has been presented by Schaffer, and does not share much in common with the concepts which had initially conceived 'grounding'. However, Dasgupta suggest, we can postulate 'grounding' as a deflationary concept, and even on such a maximally minimal basis the concept of 'grounding' will turn out to be useful, and thus worth postulating over and above the 'small-g' we already possess in inter-level metaphysics. I will thus now consider whether Schaffer's notion of metaphysical grounding can be postulated as a deflationary concept of 'grounding' instead.

The Proposal

Dasgupta claims that since the initial postulation of 'grounding' by the 'Trinity', Fine (2001) and Rosen (2010) in particular, was that their notion of 'grounding' was not only both intuitive and familiar, but it seemed to be applicable in a useful way to a number of philosophical debates. Since its conception, however, the interest in 'grounding' has inflated 'grounding' from a deflationary concept to one which is typified by broad permissivism with regards to both its foundational features, and its applicative range.³³ Thus, Dasgupta (2017) complains:

³³ c.f. Dasgupta (2017)

This new literature seemed to take ground to be some part of reality, some metaphysical analogue of the Higgs boson that somehow held the world together. The job of a metaphysician, on this new conception, was to peer into reality and discern where these “groundons” were flowing (of course, to see these groundons one needed goggles provided by specialist departments).

Countering the explosive inflationary interest in metaphysical grounding there has been a growing body of critical literature which is sceptical towards the concept of metaphysical grounding, but, according to Dasgupta, the debate had taken on a shape which was based on a concept of ‘grounding’ that had veered away significantly from the initial notions which had coalesced into the concept of ‘grounding’. In response, Dasgupta claims that ‘grounding’ can still be preserved as a valuable concept even if it does not correspond to reality and does not function as a logically primitive concept in any metaphysically significant way. Dasgupta supports his claims as follows.

A ‘Grounding’ Thesis

Dasgupta indicates that we can understand grounding in terms of the meaning of the idiom ‘because’, specifically as being a case of ‘constitutive explanation’, where such explanation is taken to provide an answer to certain questions. For example, if we wonder why there is a table somewhere, Dasgupta claims, we can answer that question either by invoking causal notions, i.e., because it was put there, or we can appeal to the constitutive elements of a table, i.e., because wood have been put together in a specific ‘table-wise’ way. I will be using ‘grounding’ in the latter sense. Of course, nothing about this usage of the idiom ‘because’ is supposed to be particularly complicated, in fact, Dasgupta chose this interpretation of the idiom ‘because’ because it is a concept of ordinary English which is ubiquitously encountered in casual and formal, scientific and non-scientific, and so on, speech. Dasgupta (2017) here is avoiding making a significant appeal to the status of ‘grounding’ in the way that Schaffer has, for example, claimed that ‘Euthyphro’s dilemma’ is a determinative question which is an example of the ‘status’ of metaphysical grounding, because without taking a stance on such examples of the ‘status’ of ‘grounding’ Dasgupta

wants to make the ‘quotidian’ claim that ‘grounding’ is ‘an everyday concept used by the masses’.

Ultimately, what Dasgupta is trying to avoid doing is to avoid committing ‘grounding’ to anything too specific, and thus, he tries to keep ‘grounding’ as compatible with various notions and concepts as possible, so as to allow the specification of further theory on top of the basic notion that ‘grounding’ stands for constitutive explanation. Thus, he has no desire to postulate ‘grounding’ in the way Schaffer postulates metaphysical grounding, viz., as a metaphysical relation between worldly facts, which is what has landed metaphysical grounding in trouble with sceptics who are concerned with the coherence of such a notion of metaphysical grounding. In his postulation of ‘grounding’ as constitutive explanation, no position is taken on how we should spell out a theory of constitutive explanation. Commitments may vary, and thus the theory can be adjusted so as to suit one’s position. However, that is not to say that Dasgupta (2017) does not envisage a deflated notion of ‘grounding’ as having no purpose, rather he claims that the role of ‘grounding’ is to ‘[limn] many issues of intellectual interest.’

We can apply a deflated notion of ‘grounding’ as a concept which limns issues of intellectual interest to questions such as those relating to discussions between physicalists and dualists with regards to the status of the mental. Dasgupta believes that ‘grounding’ can help us formulate the divide between such positions because it allows us to frame the disagreements between physicalists and dualists as consisting in questions about the ‘ground’ of the mental, such as whether the mental realm is constitutively explained by the physical realm. This idea that ‘grounding’ can limn issues of intellectual interest is what Dasgupta (2017) denotes as the ‘grounding thesis’, which he postulates conditionally as: ‘if the grounding thesis is correct then issues like these are best understood in terms of ground, a significantly deflated conception of ground will do.’

The upshot of Dasgupta’s ‘grounding thesis’ is that it does not commit him to a number of controversial points, such as those encountered in Schaffer’s accounts of metaphysical grounding which we have discussed. To run through a few examples and to interpret Dasgupta’s worries: (1) Schaffer claims that metaphysical grounding in some way reflects, characterises, or models genuine parts of reality, such as the fact that there are specifically metaphysical worldly relations between facts, which Dasgupta reads as a tendency to ‘reify’ metaphysical grounding; (2) Schaffer believes that metaphysical

grounding is equivalent to a logical primitive in some metaphysically significant sense; (3), Schaffer believes that metaphysical grounding is a universal concept problematising the notion that if metaphysical grounding provides something in the way of explanation, and given that explanation is not a universal concept, then metaphysical grounding might be overcommitted to a universal concept of explanation as well.

With regards to Schaffer's notion about metaphysical grounding as a metaphysical relation, where the *relata* are taken to be worldly facts, Dasgupta demurs that we need to postulate such a strong and inflated sense of 'grounding'. After all, we need to but pause and consider the features of constitutive explanations. Dasgupta suggests that explanations are answers, and specifically, they are answers to 'why' questions. We can conceive of numerous ways in which answers to 'why' questions may be constructed, ones which rely on commitments regarding the *relata* which are included or being explained, but we can also conceive of answers to 'why' questions which do not have such commitments. For example, we can schematically construct an answer to a 'why' as denoting some state *S* 'because' of some reason *R*, or that some state *S* is explained by some reason *R*. That is not to say that all explanations of such schemes will inevitably be explanations of 'grounding' in the sense of calling for constitutive explanations, but at the very least there will be some explanations which satisfy that scheme, and which will be 'grounding' explanations. As a result, one does not have to endorse the strong position that the *relata* of 'grounding' relations are facts, which are in relation to metaphysical grounding, as Schaffer does, rather, one can take the deflationary attitude which does not include commitments about the facts which are being explained 'Thus,' Dasgupta (2017) concludes:

if the grounding theorist asserts that there is a meeting going on because various people are doing various activities, what is she thereby committed to? People, activities, and meetings; perhaps. But not propositions, or facts, or states of affairs; nor a worldly relation of "ground" between such things; nor a relation of production between entities.

Discussion

In discussing Dasgupta's proposal for a 'grounding thesis' my point was not so much to suggest Dasgupta's suggestions as a new model to be used instead of metaphysical grounding, but to consider whether an alternative to metaphysical grounding could be postulated and whether it would be useful. It has become clear that we can scale back the notions which Schaffer baked into his concept of metaphysical grounding and postulate 'grounding' instead in a deflationary way without necessarily devising a useless concept. The point here is that a deflated concept of metaphysical grounding can be constructed to possess minimal commitments, and which can re-conceptualise the objection that being a 'coarse-grained' concept is necessarily a fault, and not a virtue. Dasgupta's 'grounding thesis' puts forth a notion of 'grounding' which is 'coarse-grained' but owing to the precise task which he assigns to 'grounding', such a feature is not problematic, in fact, it seems convenient and lends support to the concept. It is precisely the generalness of the concept which makes it useful in cases of constitutive explanation, but it is the lack of commitments which defend the concept from the wrath of metaphysicists who are frustrated with yet another cumbersome logical primitive.

For the record, Dasgupta believes that 'grounding' is a primitive concept as well, but he carefully distinguishes between various kinds of primitivity, viz., ideological, modal, scrutable, metaphysical, methodological and intellectual, which he owes to the work of MacDaniel (*forthcoming*). On MacDaniel's (and Dasgupta's) approach, what I have been referring to throughout this essay as logical primitivity, in MacDaniel's (and Dasgupta's) vocabulary would be metaphysical primitivity, which encompasses a number of different notions of primitivity depending on depending on one's metaphysical commitments, and which metaphysical tools one espouses. So, for example, metaphysical primitivity can stand for the notion that it is 'natural' in the Lewisian sense, or 'structural' in the Siderian sense; it can stand for the notion that a primitive concept is a concept which itself does not ontologically depend on anything else. Schaffer does not clearly specify in what way he takes metaphysical grounding to be a primitive, so I have contended myself with denoting it as logical primitivity, to align it with the other logical properties which he attributes to metaphysical grounding, viz., asymmetry and irreflexivity. Dasgupta (2017) claims that he

postulates ‘grounding’ as a methodological primitive and an intellectual primitive, which is to say, he believes that ‘grounding’ is a methodological primitive because it is ‘dialectically permissible’ and it is an intellectual primitive because ‘it limns logical space in interesting ways’.

Dasgupta claims that the kind of primitivity he attributes to ‘grounding’ side-steps Wilson and Koslicki’s objections, because what is at stake in their respective objections connects to the dissatisfaction about metaphysical grounding *qua* metaphysical primitive. While I do not endorse Dasgupta’s position, I think the notion of discriminating between various variants of primitivity is fairly plausible, and it raises rather interesting questions about a comprehensive deflationary proposal for ‘grounding’, and as such, perhaps it offers a way forward for the ‘topic’ of ‘grounding’. At the very least, it appears that attributing metaphysical primitivity to ‘grounding’ resulting in metaphysical grounding as Schaffer does, does not ‘work’ very well, and leads to a number of objections which seem difficult to tackle. This implies an interesting avenue and research, and perhaps a potential strategy for Schaffer’s notion of metaphysical grounding. Perhaps, rather than attempting to respond to Wilson’s and Koslicki’s objections by compounding the formalism of metaphysical grounding, the problem lies in the kind of primitivity which Schaffer attributes to metaphysical grounding. Naturally, if Wilson’s and Koslicki’s objections are aimed at metaphysical primitivity, but do not apply to a more deflated notion of primitivity, such as the one’s which Dasgupta endorses, then Schaffer would also have to revise his notion of metaphysical grounding. If we follow Dasgupta in the kind of primitivity that he attributes to ‘grounding’, then we could not speak of metaphysical grounding as a ‘relation’ between ‘facts’ in the logically primitive way which Schaffer does. How much would need to be sacrificed is debatable, but at the very least Schaffer’s concept of metaphysical grounding would have to be re-engineered, possibly to the point where it would no longer resemble the concept which we have discussed at length in this essay.

Nevertheless, if the concept is to be preserved, perhaps the sacrifice is worth the candle, because as things stand, metaphysical grounding seems redundant.

Concluding Remarks

In this section I will bring together all the notions which we have explored throughout the rest of this essay.

In the first section we made the distinction between the ‘topic’ and the ‘status’ of metaphysical grounding to build on the distinction I had made between foundational problems and applicative problems, and to attempt to construct a conceptual history of the concept of metaphysical grounding in my introduction. This was supposed to serve the dual purpose of developing the conceptual tools to discuss metaphysical grounding and concretising the notion of metaphysical grounding by indicating that it is a concept which, if we interpret along the lines of ‘status’ and ‘topic’, can attribute philosophical currency to the contemporary concept in virtue of questions of the ‘status’ of metaphysical grounding being present in the history of philosophy, and questions about the ‘topic’ of metaphysical grounding appearing as a relatively novel notion by comparison, as it has only appeared together with the concept of metaphysical grounding.

In the second section I ironed out historical and conceptual points which were specific to Schaffer’s (2009, 2010, 2012) notions about metaphysical grounding and which had not appeared in the first section. In my discussion of Schaffer’s notion I complemented his historical and conceptual points by discussing them along the lines of the distinction between ‘status’ and ‘topic’. I tried to show that while Schaffer’s historical record of metaphysical grounding suffers from rather serious shortcomings, injecting the distinction between ‘status’ and ‘topic’ into Schaffer’s account allows us to pre-emptively respond to one of Wilson’s (2014) objections, namely, that Schaffer’s record of the history of metaphysical grounding is a ‘just-so story’. It does so in virtue of de-historicising Schaffer’s record of metaphysical grounding, and instead leaves open Schaffer’s notions about the ‘topic’ of metaphysical grounding as being compatible with the conceptual history of metaphysical grounding which had appeared in the first section.

In the third section I began discussing Wilson’s (2014) objections to Schaffer’s notions about the concept of metaphysical grounding. In my discussion of Wilson’s objection that Schaffer’s notions about the history of metaphysical grounding problems are a ‘just-so story’ drove home problems for Schaffer’s historical notions which

had already appeared in the second section. I discussed, however, a significant problem for the ‘topic’ of Schaffer’s concept of metaphysical grounding, which is applicable even if we separate Schaffer’s concept of metaphysical grounding from his notions about the history of metaphysical grounding, namely, that Schaffer’s concept of metaphysical groundings appears to suffer from underdetermination on a number of important questions, leading Wilson to the conclusion that metaphysical grounding is a ‘coarse-grained’ concepts which is far too general to be of any pragmatic use to the metaphysicist. Such an objection raises two kinds of problems for Schaffer’s concept of metaphysical grounding.

On the one hand, it undermines the notion that there is a ‘status’ of metaphysical grounding, which is to say, that there are questions of metaphysical dependence which are specifically about metaphysical grounding and which cannot be tackled by deferring to standard ‘small-g’ relations which we already encounter in inter-level metaphysics. This point also applies to Schaffer’s suggestion that an aspect of the ‘status’ of metaphysical grounding could be that it functions as a unifying concept for the diverse ‘small-g’ metaphysical relations.

On the other hand, it raises problems about the ‘topic’ of Schaffer’s concept of metaphysical grounding. Schaffer himself undermines the uniqueness of the concept of metaphysical grounding by suggesting that metaphysical grounding is not a transitive concept, thus presenting it as a concept that has the logical properties of being a primitive concept which is asymmetrical and irreflexive. As we have seen, the notion of metaphysical grounding being a logical primitive has to be supported by the ‘status’ of metaphysical grounding, but if metaphysical grounding is a relation which is only asymmetrical and irreflexive, then that says comparatively less about the ‘status’ of metaphysical grounding than it would if metaphysical grounding were transitive as well. It seems that most metaphysical relations are asymmetrical, which does not set metaphysical grounding aside, and since irreflexivity generally follows from asymmetry, postulating metaphysical grounding as a concept which is asymmetrical and transitive provides us with little reason to view metaphysical grounding as somehow importantly distinct from other standard ‘small-g’ metaphysical relations. Since a concept needs to be unique and useful in order to lay the claim to logical primitivity the impression that metaphysical grounding is neither unique, nor useful, undermines the crucial feature about the ‘topic’ of metaphysical grounding which Schaffer has attributed to it.

In the fourth section I looked at way in which Schaffer (2016a) has attempted to respond to Wilson (2014), by pitting his suggestions against objections by Wilson (2016a) and Koslicki (2016). What was at stake in this section was whether Schaffer could respond to objections from Wilson (2014) in a way that would not leave him vulnerable to similar, or other objections. In the third section it had become clear that something about the ‘topic’ of metaphysical grounding was missing which would set it apart from other ‘small-g’ relations and which thus reinvigorate the notion that there are questions about the ‘status’ of metaphysical grounding which are specific to the concept of metaphysical grounding itself. Schaffer believes that his concept of metaphysical grounding became vulnerable to objections from underdetermination and graininess because it was lacking a more developed formalism. Thus, Schaffer’s idea is that by substituting the basic formalism for metaphysical grounding, which we have encountered in the subsection on the logical properties of the ‘topic’ about metaphysical grounding of the second section, with a more sophisticated formalism, worries about underdetermination can be dispelled. Thus, the objection that metaphysical is too ‘coarse-grained’ can be responded to, because the concept of metaphysical grounding would no longer seem to be so general as to be incapable of answering pertinent metaphysical questions.

Schaffer’s new formalism lies in a commitment to modelling relations of metaphysical grounding in terms of structural equation models, which should not only present the argument that metaphysical grounding is a unifier for all the diverse ‘small-g’ metaphysical relations in a new light, but also provides us with reason to believe that there is merit to postulating metaphysical grounding as a logical primitive after all. This case was further compounded by a second argument by Schaffer which suggested that metaphysical grounding is necessary to fix the direction of priority in the diverse ‘small-g’ metaphysical relations, because they allegedly cannot do so in and of themselves. Unfortunately, as we have seen, Schaffer’s appeal to new formalism does not directly respond to Wilson’s (2014) objections, rather, it simply pushes them back. On the basis of new objections put forward by Wilson (2016a) and Koslicki (2016) it seems that there is reason to doubt whether introducing structural equation models, or more generally, by thinking that the shortcomings of metaphysical ground can be solved by tweaking the formalism of metaphysical grounding, will provide us with a path that will lead to the unification of the diverse ‘small-g’ metaphysical relations through metaphysical grounding.

These considerations lead to further reflections concerning the relationship of metaphysical grounding and metaphysical parsimony. Since it seems quite plausible that it is preferable to follow Ockham's Razor in all matters metaphysical, we are led to a number of further worries about Schaffer's concept of metaphysical grounding, which are also related to Schaffer's second argument in favour of metaphysical grounding, namely, that metaphysical grounding fixed the direction of priority. While Wilson (2014, 2016) concedes that Schaffer may be right to diagnose that metaphysics requires a new metaphysical primitive in order to fix the direction of priority for at least some of the 'small-g' metaphysical relations, it is doubtful whether this requires the inclusion of a new concept in metaphysics. Specifically, Wilson suggests that we could conceive of the 'fundamental' as a logical primitive, which would not only solve certain problems arising from the difficulty of defining the fundamental, but would also directly solve problems of priority in cases between facts which are non-fundamental and facts which are fundamental. Furthermore, we could also account for the direction of priority in cases where the metaphysical relations concerns at least two non-fundamental facts, because rather than postulating a novel concept, given the close relationship to 'fundamentality' and the possibility of adjusting 'small-g' metaphysical relations, we can answer problems concerning the direction of priority for at least two non-fundamental facts with the concepts we already have, if necessary by inflating them. On the whole, even if we need to inflate 'small-g' relations, the position of attributing logical primitivity to 'fundamentality' will still be more parsimonious than Schaffer's proposal for a novel primitive concept, viz., metaphysical grounding.

In view of these considerations, it seems Schaffer's notion of metaphysical grounding still suffers from serious objections and problems, concerning both its 'topic' and its 'status', leading to impression that the burden of proof lies not on the metaphysicist who conducts metaphysical investigations by means of standard concepts, viz., 'small-g' relations, but on Schaffer to indicate how metaphysical grounding is unique, and in what way it is useful.

In the fifth section I considered an alternative to Schaffer's strategy to respond to Wilson's and Koslicki's objections by suggesting that it follows from a deflationary account of 'grounding' that Schaffer seems to have taken the wrong approach in responding to Wilson's and Koslicki's objections. Dasgupta (2017) has recently made the case for a deflationary concept of 'grounding' which does not rely on the notions which Schaffer has attributed to metaphysical grounding because he distinguishes between distinct variations of

primitivity. Unlike Schaffer, who attributes a strong inflated sense of primitivity to metaphysical grounding, which makes it susceptible to objections from underdetermination, graininess, and general disutility, Dasgupta's notion of 'grounding' seems to avoid such problems by re-casting the notion of 'grounding' in significantly weaker, but nonetheless, useful, ways. This might point a way forward for Schaffer's concept of metaphysical grounding if it is to stand its own against Wilson's and Koslicki's objections. Perhaps rather than trying to respond with formalism, or by means of tweaking the logical properties of metaphysical grounding, a way forward lies in biting the bullet and considering the source of weakness for metaphysical grounding. What has been at stake throughout this essay is the notion that metaphysical grounding is a logical primitive, and as we have seen, while the reward of a primitive concept is lucrative, it is equally burdensome to maintain. Thus, given the volatile nature of this particular property of metaphysical grounding, to preserve metaphysical grounding as a useful primitive concept it would seem that the most promising area of metaphysical grounding to investigate is the very property of primitivity.

Concluding, the burden of proof lies on Schaffer to show how metaphysical grounding is a useful concept, but as I have indicated, perhaps a way forward to consider is to re-consider the features of metaphysical grounding, such as the logical primitivity which Schaffer attributes to it. A way forward for Schaffer might lie in attempting to re-cast the concept of metaphysical grounding as a concept which, if still primitive, is characterised by a different kind of primitivity, which is not susceptible to Wilson's and Koslicki's objections. As it stands now, however, metaphysical grounding is problematic.

Bibliography

- Armstrong, D. A., 1997. *A World of States of Affairs*. Cambridge: Cambridge University Press.
- Audi, P., 2012a. 'A Clarification and Defense of the Notion of Grounding', in *Metaphysical Grounding: Understanding the Structure of Reality*, edited by F. Correia and B. Schnieder: 101-21. Cambridge: Cambridge University Press.
- Audi, P., 2012b. 'Grounding: Toward a Theory of the In-Virtue-Of Relation', *Journal of Philosophy*, 109: 685-711.
- Berker, S., 2018. 'The Unity of Grounding', *Mind* 127 (507): 729-777.
- Bolzano, B., 1837. *Wissenschaftslehre*. Sulzbach: Seidel.
- Bliss, R., & Trogon, K., 2014. 'Metaphysical Grounding', in *The Stanford Encyclopedia of Philosophy*, edited by E. N. Zalta.
- Carnap, R., 1947. *Meaning and Necessity*. Chicago: University of Chicago Press.
- Cameron, R., 2008. 'Turtles all the Way Down: Regress, Priority, and Fundamentality', *The Philosophical Quarterly*, 58: 1-14.
- Clark, M. J., & Liggins, D., 2012. 'Recent work on grounding', *Analysis* 72 (4): 812-23.
- Correia, F., & Schnieder, B., 2012. 'Grounding: An Opinioned Introduction', *Metaphysical Grounding: Understanding the Structure of Reality*, edited by F. Correia and B. Schnieder: 1-36.
- Correia, F., & Schnieder, B., (eds.), 2012. *Grounding and Explanation*, Cambridge: Cambridge University Press
- Chalmers, D., Manley, D., & Wasserman, R., (eds.), 2009. *Metametaphysics*. Oxford: Oxford University Press.
- Daly, C., 2012. 'Skepticism about Grounding', in *Metaphysical Grounding: Understanding the Structure of Reality*, edited by F. Correia and B. Schnieder: 81-100.
- Dasgupta, S., 2014a. 'On the Plurality of Grounds', *Philosophers' Imprint*, 14: 1-28
- Dasgupta S., 2014b. 'The Possibility of Physicalism', *The Journal of Philosophy* 111 (9/10): 557-92.

- Dasgupta, S., 2017. 'Constitutive Explanation', *Philosophical Issues* 27 (1): 74-97.
- Dummett, M. A. E., 1991. *The Logical Basis of Metaphysics*. Harvard University Press.
- Fine, K., 2001. 'The Question of Realism', *Philosophers' Imprint* 1:1-30.
- Fine, K., 2007. *Semantic Relationism*. Oxford: Blackwell Publishing.
- Fine, K., 2010. 'Some Puzzles of Ground', *Notre Dame Journal of Formal Logic*, 51: 97-118.
- Fine, K., 2012a. 'Guide to Ground'. in *Metaphysical Grounding: Understanding the Structure of Reality*, edited by F. Correia and B. Schnieder: 37-80.
- Fine, K., 2012b. 'The Pure Logic of Ground', *Review of Symbolic Logic* 5 (1): 1-25.
- Hall, N., 2004. 'Two Concepts of Causation', in *Causation and Counterfactuals*, edited by J. Collins, N. Hall, & L. Paul: 225-276. Cambridge, MA: MIT Press.
- Hoeltje, M., Schnieder B., & Steinberg A., (eds.), 2013. *Varieties of Dependence: Ontological Dependence, Grounding, Supervenience, Response-Dependence*, Basic Philosophical Concepts, München: Philosophia.
- Husserl, E., 1900. *Logical Investigations*. Translated by J. N. Findlay. London: Routledge.
- Jenkins, C. S., 2013. 'Explanation and Fundamentality', in *Varieties of Dependence: Ontological Dependence, Grounding, Supervenience, Response-Dependence*; edited by Hoeltje et al: 211-242.
- Kripke, S., 1972. *Naming and Necessity*. Cambridge, MA: Harvard University Press.
- Kim, J., 1993. *Supervenience and Mind: Selected Philosophical Essays*. Cambridge: Cambridge University Press.
- Koslicki, K., 2015. 'The Coarse-Grainedness of Grounding', *Oxford Studies in Metaphysics* 2015: 306-344.
- Koslicki, K., 2016. 'Where Grounding and Causation Part Ways: Comments on Schaffer', *Philosophical Studies* 173 (1):101-112.
- Lewis, D., 1999. 'New Work for a Theory of Universals' in *Papers in Metaphysics and Epistemology*: 8-55. Cambridge: Cambridge University Press.
- Litland, J., 2013. 'On Some Counterexamples to the Transitivity of Grounding', *Essays in Philosophy*, 14: 19-32.

- McDaniel, K., *forthcoming*. *The Fragmentation of Being*. Oxford: Oxford University Press.
- Moore, G. E., 1993. 'The Conception of Intrinsic Value' in *Principia Ethica*. Cambridge: Cambridge University Press.
- Quine, W. V. O., 1980. 'Reference and Modality', in *From a Logical Point of View*: 139-59. Cambridge, MA: Harvard University Press.
- Raven, J., 2013. 'Is Ground a Strict Partial Order?', *American Philosophical Quarterly* 50 (2): 191-99.
- Raven, J., 2015. 'Ground', *Philosophy Compass* 10 (5): 322-333.
- Raven, J., 2017. 'New Work for a Theory of Ground', *Inquiry: An Interdisciplinary Journal of Philosophy* 60 (6): 625-655.
- Raven, J., *forthcoming*. '(Re)discovering Ground', in *Cambridge History of Philosophy, 1945 to 2015*, edited by B. K. Michael & T. Iain. Cambridge University Press.
- Rodriguez-Pereyra, G., 2005. 'Why Truthmakers?' in *Truthmakers: The Contemporary Debate*, edited by H. Beebe and J. Dodd: 17-31. Oxford: Oxford University Press.
- Rodriguez-Pereyra, G., 2015. 'Grounding is Not a Strict Order', *Journal of the American Philosophical Association* 1 (3): 517-34.
- Rosen, G., 2010. 'Metaphysical Dependence: Grounding and Reduction' in *Modality: Metaphysics, Logic, and Epistemology*; edited by B. Hale & A. Hoffmann: 109-136. Oxford University Press.
- Russell, B., 1914. *Our Knowledge of the External World: As a Field for Scientific Method in Philosophy*. London: Routledge.
- Russell, B., 1918. 'The Philosophy of Logical Atomism', in *The Philosophy of Logical Atomism*. London: Routledge Classics.
- Sider, T., 2012. *Writing the Book of the World*. Oxford: Oxford University Press
- Schaffer, J., 2009. 'On What Grounds What', in *Metametaphysics: New Essays on the Foundations of Ontology*, edited by D. Manley, D. J. Chalmers & R. Wasserman: 347-383. Oxford University Press.
- Schaffer, J., 2010. 'Monism: The Priority of the Whole'. *Philosophical Review* 119: 31-76.

- Schaffer, J., 2012. 'Grounding, Transitivity, and Contrastivity', in *Metaphysical Grounding: Understanding the Structure of Reality*, edited by F. Correia and B. Schnieder: 122-138. Cambridge: Cambridge University Press.
- Schaffer, J., 2016a. 'Ground Rules: Lessons from Wilson', in *Scientific Composition and Metaphysical Ground*, edited by K. Aizawa & C. Gillett: 143-170. Palgrave MacMillan.
- Schaffer, J., 2016b. 'Grounding in the Image of Causation', *Philosophical Studies* 173 (1): 49-100.
- Schaffer, J., 2017. 'The Ground Between the Gaps', *Philosophers' Imprint* 17.
- Tahko, T., 2015. *An Introduction to Metametaphysics*. Cambridge: Cambridge University Press.
- Tatzel, A., 2002. 'Bolzano's Theory of Ground and Consequence', *Notre Dame Journal of Symbolic Logic* 43 (1): 1-25.
- Trogon, K., 2013. 'An Introduction to Grounding', in *Varieties of Dependence: Ontological Dependence, Grounding, Supervenience, Response-Dependence*; edited by Hoeltje et al: 97-122.
- Wilson, J., 2014. 'No Work for a Theory of Grounding', *Inquiry: An Interdisciplinary Journal of Philosophy* 57 (5-6): 535-579.
- Wilson, J., 2016a. 'The Unity and Priority Arguments for Grounding', in *Scientific Composition and Metaphysical Ground*, edited by K. Aizawa & C. Gillett: 171-204. Palgrave MacMillan.
- Wilson, J., 2016b. 'Grounding-Based Formulations of Physicalism', *Topoi* 1-18.
- Wittgenstein, L., 1921. *Tractatus Logico-Philosophicus*. Translated by D. F. Pears and B. F. McGuinness. London: Routledge.
- Wittgenstein, L., 1969. *On Certainty*. Translated by D. Paul & G. E. M. Anscombe. Edited by G. E. M. Anscombe & G. H. von Wright. Oxford: Basil Blackwell.