

Theory and History of Ontology (www.ontology.co) by Raul Corazzon | e-mail: rc@ontology.co

Annotated bibliography on metaphysical grounding. Fifth part: Sko-Z

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For the work of Kit Fine see:

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Bibliography

1. Skow, Bradford. 2016. *Reasons Why*. New York: Oxford University Press.
 "Why-questions are important in metaphysics. The obvious example is their importance to the theory of grounding. Many metaphysicians are very busy producing theories of grounding—but what is grounding? A common strategy for helping initiates get a handle on the subject matter of these theories is to say that when one fact grounds another, the first may be used to answer the question why the second obtains. Another example of a part of metaphysics where why-questions are important is the theory of modality. If some fact F obtains in two possible worlds W and V, then those worlds are in one respect similar. Boris Kment argues, in "Counterfactuals and Explanation," that this respect of similarity matters for how close V and W are, in the sense of closeness relevant to evaluating counterfactuals, if and only if the question why F obtains has the same answer in both worlds." (p. 2)
 References
 Kment, Boris. "Counterfactuals and Explanation." *Mind* vol. 115, 2006, 261-309.
2. Smithson, Robert. 2020. "Metaphysical and Conceptual Grounding." *Erkenntnis* no. 85:1501-1525.
 Abstract: "In this paper, I clarify the relation between two types of grounding: metaphysical and conceptual. Metaphysical grounding relates entities at more and less fundamental ontological levels. Conceptual grounding relates semantically primitive sentences and semantically derivative sentences. It is important to distinguish these relations given that both types of grounding can underwrite non-causal "in-virtue-of" claims. In this paper, I argue that conceptual and metaphysical grounding are exclusive: if a given in-virtue-of claim involves conceptual grounding, then it does not involve metaphysical grounding. I then present two heuristics for deciding which type of grounding is relevant to a given case. These heuristics suggest that certain proposed cases of metaphysical grounding may not actually involve metaphysical grounding at all."
3. Solomyak, Olla. 2020. "Realism." In *The Routledge Handbook of Metaphysical Grounding*, edited by Raven, Michael J., 375-386. New York: Routledge.

"Questions of ground and questions of realism appear to be tightly connected in a number of ways, but there has not been consensus on precisely how these connections should be understood nor a full explication of the various approaches one might take on this issue. My aim in this chapter will be to spell out several ways in which we might see these questions as connected and thereby clarify the role for questions of ground in metaphysical inquiry more generally." (p. 375)

4. Steinberg, Alex. 2013. "Supervenience: A Survey." In *Varieties of Dependence: Ontological Dependence, Grounding, Supervenience, Response-Dependence*, edited by Hoeltje, Miguel, Schnieder, Benjamin and Steinberg, Alex, 123-166. Munich: Philosophia Verlag.
 "Many philosophers think that an important sort of dependence that relates conjunctive facts to atomic facts and the primary colours to the specific shades can be captured by supervenience claims."
 (...)
 "Supervenience, then, promises to be one of the dependence relations that structure the world we live in. This paper aims to give an overview of the subject. Section 1 introduces the main kinds of supervenience.
 Section 2 discusses their relations. And section 3 makes the case that purely modal definitions of supervenience can fruitfully be improved upon.
 In the rest of the paper I will follow the bulk of the philosophical literature in focusing exclusively on properties as the relata of supervenience." (pp. 123-124)
5. Stenwall, Robin. 2017. "Causal Grounds for Negative Truths." *Philosophical Studies* no. 174:2973-2989.
 Abstract: "Among truthmaker theorists it is generally thought that we are not able to use the entailment principle (i.e. the principle according to which truthmaking distributes across entailment) to ground negative truths. But these theorists usually only discuss truthmakers for truth-functional complexes, thereby overlooking the fact that there are non-truth-functional complexes whose truth values are not solely determined by the truth or falsity of their atomic propositions. And once we expand the class of truths that require their own bespoke truthmakers to also include these, there is no reason to exempt negative truths from grounding. For given that truthmaking is closed under entailment and every negative truths is entailed by some non-truth-functional complex or other, any resources rich enough to ground the truth of the latter will do the same job for the former."
6. ———. 2021. "A Grounding Physicalist Solution to the Causal Exclusion Problem." *Synthese* no. 198:11775-11795.
 Abstract: "Remember how Kim (*Philos Perspect* 3:77–108, 1989, in: Heil and Mele (eds) *Mental causation*, Clarendon Press, Oxford, 1993b) used to argue against non-reductive physicalism to the effect that it cannot accommodate the causal efficacy of the mental?
 The argument was that if physicalists accept the causal closure of the physical, they are faced with an exclusion problem. In the original version of the argument, the dependence holding between the mental and the physical was cashed out in terms of supervenience. Due to the work of Fine (*Philos Perspect* 8:1–16, 1994) and others, we have since come to realize that modal notions are not well-suited to perform the work of properly characterizing dependence. As a consequence of this, an increasingly larger community of contemporary metaphysicians prefer to spell out mental-physical dependence in terms of a non-causal and non-reductive notion called grounding, which is intended to target a particular sort of metaphysical relation that takes us from ontologically less fundamental features of the world to that which is more fundamental. In this paper I join forces with those who think that this shift in focus is on the right track.
 More specifically, I will argue that the grounding physicalist can solve the exclusion problem in a way that is preferable to the supervenience-based nonreductive physicalist solution, as well as in a way that is compatible with the externalist picture of the mental."

References

- Fine, K. (1994). Essence and modality. *Philosophical Perspectives*, 8, 1–16.
- Kim, J. (1989). Mechanism, purpose, and explanatory exclusion. *Philosophical Perspectives*, 3, 77–108. (Reprinted in Kim 1993a, pp. 237–64).
- Kim, J. (1993a). *Supervenience and mind: Selected philosophical essays*. Cambridge: Cambridge University Press.
7. Tahko, Tuomas. 2015. *An Introduction to Metametaphysics*. Cambridge: Cambridge University Press.
Chapter 5: *Grounding and ontological dependence*, pp. 93-119.
"The notion of 'ground' stormed into contemporary analytic metaphysics at the beginning of the twenty-first century,(1) but the roots of the notion go all the way back to Aristotle. At its simplest, grounding may be understood as 'metaphysical explanation'. To be more precise, when some x is grounded in some y, it is usually thought that y explains x. Moreover, the status of y is generally thought to be somehow prior to that of x – grounding is typically understood to express priority between things. For instance, we might say that the members of a set are prior to the set itself; the existence of the set is grounded in its members. Or to take a more concrete example, the existence of any given composite object is grounded in the existence of its parts." (p. 93)
(1) The definitive work is Kit Fine, 'The Question of Realism,' *Philosophers Imprint* 1 (2001), pp. 1–30, but for more recent discussion, see especially F. Correia and B. Schnieder (eds.), *Metaphysical Grounding: Understanding the Structure of Reality* (Cambridge University Press, 2012); see also R. L. Bliss and K. Trogdon, 'Metaphysical Grounding,' in E. N. Zalta (ed.), *The Stanford Encyclopedia of Philosophy* (Winter 2014 edn); see <http://plato.stanford.edu/archives/win2014/entries/grounding/>.
8. Tahko, Tuomas E. 2013. "Truth-Grounding and Transitivity." *Thought: A Journal of Philosophy* no. 2:332-340.
Abstract: "It is argued that if we take grounding to be univocal, then there is a serious tension between truth-grounding and one commonly assumed structural principle for grounding, namely transitivity.
The primary claim of the article is that truth-grounding cannot be transitive. Accordingly, it is either the case that grounding is not transitive or that truth-grounding is not grounding, or both."
9. ———. 2020. "Structure." In *The Routledge Handbook of Metaphysical Grounding*, edited by Raven, Michael J., 387-395. New York: Routledge.
WIn this chapter, I will discuss both of these senses of structure as well as their potential connections. I will first briefly outline a potential connection between ground, structure, and fundamentality. Next we take up the idea that reality has a hierarchical structure and we will then examine whether there could be a systematic connection between ground and structure via the Lewisian notion of *naturalness*. This leads us to a question about the relationship between reality and representation, before concluding with a more detailed discussion about a famous principle regarding fundamentality, namely, the principle of *purity*." (p. 387)
10. Tajer, Diego. 2016. "Grounding and Logical Basing Permissions." *Diametros* no. 50:81-96.
Abstract: "The relation between logic and rationality has recently re-emerged as an important topic of discussion. Following the ideas of Broome [1999] and Macfarlane [2004], the debate focused on providing rational requirements, which work as bridges between logic and epistemic norms. However, as Broome [2014] and Way [2011] observed, the usual requirements cannot capture some important aspects of rationality, such as how one can rationally believe something on the basis of believing something else. Broome [2014] proposed a few additional principles ("basing permissions") for this purpose. In this paper I develop a more systematic family of basing permissions using the recent notion of grounding (Fine [2012],

Correia [2014]). In particular, I claim that if Γ (logically) grounds A, and you believe Γ then rationality permits you to believe A on the basis of believing Γ ."

References

Broome [2014] - J. Broome, *Rationality through reasoning*, Oxford University Press, Oxford 2014.

Correia [2014] - F. Correia, "Logical Grounds," *Review of Symbolic Logic* (7/1) 2014, p. 31-59.

Fine [2012] - K. Fine, *A guide to ground*, [in:] *Grounding and Explanation*, F. Correia, B. Schniereder (eds.), Cambridge University Press, Cambridge 2012, p. 37-80.

Macfarlane [2004] - J. Macfarlane, "What (if any) is the normative role of logic?", unpublished talk at APA 2004, available on the website of the author.

Way [2011] - J. Way, "The symmetry of rational requirements," *Philosophical Studies* (155/2) 2011, p. 227- 239.

11. Tallant, Jonathan. 2018. *Truth and World: An Explanationist Theory*. New York: Routledge.

"My starting point for many of the arguments will be Armstrong's canonical *Truth and Truthmaking*. So, to the theory. I borrow (with slight emendation) from Cameron (2008a).(1)

Maximalism: for any true proposition, there exists some thing or things that necessitate(s) the truth of that proposition. (cf. Cameron, 2008a: 292)

Maximalism is an extreme version of truthmaker theory.

The truthmaker theorist merely holds that:

Truthmaker theory: for some true propositions, there exists some thing or things that necessitate(s) the truth of that proposition.

As we move through this chapter, we will have to refine these principles. For one thing, note that this treats necessitation as the truthmaker relation (as do, e.g., both Armstrong (2004) and Cameron (2008a)). I will suggest that mere necessitation is not fit to play the role of the truthmaker relation. Following a number of others (e.g., Schaffer, 2008a, 2008b, 2009: 365), I suggest that the truthmaker relation should be treated as a grounding relation – the 'in virtue of' relation. I take this relation to be a primitive and unanalysable relation, though there are things that can be said to cast light on its nature."

(1) The emendation: Cameron states that truthmakers must be pluralities: things.

There is no obvious reason that a truthmaker might not, instead, be a thing.

References

Armstrong, D. 2004. *Truth and Truthmakers*. Cambridge: CUP.

Cameron, R. 2008a. 'Comments on Merricks's Truth and Ontology', *Philosophical Books*, 49, 292–301.

Schaffer, J. 2008a. 'Truthmaker Commitments', *Philosophical Studies*, 141, 7–19.

Schaffer, J. 2008b. 'Truth and Fundamentality: On Merricks's Truth and Ontology', *Philosophical Books*, 49, 302–16.

Schaffer, J. 2009. 'On What Grounds What', in D. Chalmers, D. Manley and R. Wasserman (eds.), *Metametaphysics*. Oxford: OUP, 347–83.

12. Thompson, Naomi. 2014. *Structuring Reality*.

PhD thesis at the University of Birmingham; available at Academia.edu.

Abstract: "This thesis explores attempts to characterise the structure of reality. Three notions stand out: Lewisian *naturalness*, Sider's '*structure*', and *grounding*, where the latter has become the most popular way to characterise the structure of reality in the contemporary literature. I argue that none of these notions, as they are currently understood, are suited for limning the metaphysical structure of reality. In the first part of the thesis I argue that, by the lights of the relevant theories, both naturalness and structure fall short of the theoretical role carved out for those posits. In the second part of the thesis I present two challenges to the 'orthodox' conception of grounding. The first contests the standard assumption that grounding is asymmetric, both by citing what I take to be best described as symmetric instances of grounding, and by developing and arguing for a new theory of metaphysical structure –

‘metaphysical interdependence’ – which takes grounding to be nonsymmetric. The second challenge concerns the relationship between grounding and (metaphysical) explanation, and leads to a dilemma for the grounding theorist. My proposed resolution to the dilemma is to adopt an antirealist approach to grounding, which I further motivate and develop in the final chapter."

13. ———. 2016. "Grounding and Metaphysical Explanation." *Proceedings of the Aristotelian Society* no. 116:395-402.
Abstract: "Attempts to elucidate grounding are often made by connecting grounding to metaphysical explanation, but the notion of metaphysical explanation is itself opaque, and has received little attention in the literature. We can appeal to theories of explanation in the philosophy of science to give us a characterisation of metaphysical explanation, but this reveals a tension between three theses: that grounding relations are objective and mind-independent; that there are pragmatic elements to metaphysical explanation; and that grounding and metaphysical explanation share a close connection. Holding fixed the mind-independence of grounding, I show that neither horn of the resultant dilemma can be blunted. Consequently, we should reject the assumption that grounding relations are mind-independent."
14. ———. 2016. "Metaphysical Interdependence." In *Reality Making*, edited by Jago, Mark, 38-56. Oxford: Oxford University Press.
"I assume the existence of a distinctive relation of non-causal dependence: the grounding relation. Intuitive examples of grounding can help to elucidate the notion. Consider, for example, the relationship that obtains between Socrates's singleton—the set that only has Socrates as a member—and Socrates himself (see Fine 1995, 271), where Socrates's singleton exists because Socrates exists. Grounding can be understood as a relation of metaphysical explanation, as emphasized by the 'because' in the previous sentence. Claims about the dependence of truths on their truthmakers are also plausibly construed as grounding claims (e.g. Rodriguez-Pereyra 2006, 960; Correia 2011)—we get a particular truth in virtue of the existence of the relevant truthmaker. The truth is thus grounded in the truthmaker. Borrowing another kind of example of grounding from Schaffer 2009, 375), the Euthyphro dilemma concerns whether an act is morally right because it is approved by the gods, or is approved by the gods because it is morally right. If we take the first horn of the dilemma, then the rightness of the act is grounded in the approval of the gods. If the latter, the approval of the gods is grounded in the rightness of the act." (p. 38)
References
Correia, F. (2011). 'From Grounding to Truth-Making: Some Thoughts'. In Reboul, A., *Philosophical papers dedicated to Kevin Mulligan*, Cham: Springer [2014, vol. 1, pp. 85-98].
Fine, K. (1995). 'Ontological Dependence'. *Proceedings of the Aristotelian Society, New Series*, Vol. 95, 269-90.
Rodriguez-Pereyra, G. (2006). 'Truthmaking, entailment, and the conjunction thesis'. *Mind* 115 (460): 957-82.
Schaffer, J. (2009). 'On What Grounds What'. In Chalmers, D., Manley, D, and Wasserman, R. (eds.) *Metametaphysics: New Essays on the Foundations of Ontology*, pp. 347-83. Oxford: Oxford University Press.
15. ———. 2018. "Irrealism about Grounding." *Royal Institute of Philosophy Supplement* no. 172:2405-2425.
Abstract: "Grounding talk has become increasingly familiar in contemporary philosophical discussion. Most discussants of grounding think that grounding talk is useful, intelligible, and accurately describes metaphysical reality. Call them *realists* about grounding. Some dissenters reject grounding talk on the grounds that it is unintelligible, or unmotivated. They would prefer to eliminate grounding talk from philosophy, so we can call them *eliminativists* about grounding. This paper outlines a new position in the debate about grounding, defending the view that grounding talk

- is (or at least can be) intelligible and useful. Grounding talk does not, however, provide a literal and veridical description of mind-independent metaphysical reality. This (non-eliminative) *irrealism* about grounding treads a path between realism and eliminativism."
16. ———. 2019. "Questions and Answers: Metaphysical Explanation and the Structure of Reality." *Journal of the American Philosophical Association*:98-116. Abstract: "This paper develops an account of metaphysical explanation according to which metaphysical explanations are answers to what-makes-it-the-case-that questions. On this view, metaphysical explanations are not to be considered entirely objective, but are subject to epistemic constraints imposed by the context in which a relevant question is asked. The resultant account of metaphysical explanation is developed independently of any particular views about grounding. Toward the end of the paper an application of the view is proposed that takes metaphysical explanations conceived in this way to characterize reality's structure. According to this proposal, reality's structure is partly constituted by a projection of our explanatory practices onto reality."
 17. ———. 2020. "Strict Partial Order." In *The Routledge Handbook of Metaphysical Grounding*, edited by Raven, Michael J., 259-270. New York: Routledge. "This chapter explores aspects of the logic of ground. A strict partial order is transitive, irreflexive, and asymmetric. Whilst it is generally assumed that grounding exhibits these properties, this has consequences for other aspects of the study of ground, and so each assumption has been challenged in the grounding literature. The present chapter critically discusses those challenges and explores reasons for thinking that grounding forms a strict partial order in the first place." (p. 259)
 18. Tiehen, Justin. 2015. "Grounding Causal Closure." *Pacific Philosophical Quarterly* no. 96:501-522. Abstract: "What does it mean to say that mind-body dualism is causally problematic in a way that other mind-body theories, such as the psychophysical type identity theory, are not? After considering and rejecting various proposals, I advance my own, which focuses on what grounds the causal closure of the physical realm. A metametaphysical implication of my proposal is that philosophers working without the notion of grounding in their toolkit are metaphysically impoverished. They cannot do justice to the thought, encountered in every introductory class in the philosophy of mind, that dualism has a special problem accounting for mental causation."
 19. ———. 2015. "Explaining Causal Closure." *Philosophical Studies* no. 172:2405-2425. Abstract: "The physical realm is causally closed, according to physicalists like me. But why is it causally closed, what metaphysically explains causal closure? I argue that reductive physicalists are committed to one explanation of causal closure to the exclusion of any independent explanation, and that as a result, they must give up on using a causal argument to attack mind-body dualism. Reductive physicalists should view dualism in much the way that we view the hypothesis that unicorns exist, or that the Kansas City Royals won the 2003 World Series: false, but not objectionable in any distinctively causal way. My argument turns on connections between explanation, counterfactuals, and inductive confirmation."
 20. Torza, Alessandro. 2020. "Ground and Modality." *Inquiry: An Interdisciplinary Journal of Philosophy* no. 63:563-585. Abstract: "The grounding relation is routinely characterized by means of logical postulates. The aim of this paper is twofold. First, I show that a subset of those postulates is incompatible with a minimal characterization of metaphysical modality. Then I consider a number of ways for reconciling ground with modality. The simplest and most elegant solution consists in adopting serious actualism, which is best captured within a first-order modal language with predicate abstraction governed by negative free logic. I also explore a number of alternative strategies by revising the ground-

theoretic postulates, while keeping the modal ones fixed. As I argue, each of those strategies is either unviable, highly contentious, or insufficiently motivated."

21. Trogon, Kelly. 2013. "Grounding: Necessary or Contingent?" *Pacific Philosophical Quarterly* no. 94:465-485.
 Abstract: "Recent interest in the nature of grounding is due in part to the idea that purely modal notions are too coarse-grained to capture what we have in mind when we say that one thing is grounded in another. Grounding not being purely modal in character, however, is compatible with it having modal consequences. Is grounding a necessary relation? In this article I argue that the answer is 'yes' in the sense that propositions corresponding to full grounds modally entail propositions corresponding to what they ground. The argument proceeds upon two substantive principles: the first is that there is a broadly epistemic constraint on grounding, while the second links this constraint with Fine's Aristotelian notion of essence. Many think grounding is necessary in something like the sense specified above, but just why it's necessary is an issue that hasn't been carefully addressed. If my argument is successful, we now know why grounding is necessary."
22. ———. 2013. "An Introduction to Grounding." In *Varieties of Dependence: Ontological Dependence, Grounding, Supervenience, Response-Dependence*, edited by Hoeltje, Miguel, Schnieder, Benjamin and Steinberg, Alex, 97-122. Munich: Philosophia Verlag.
 "There is a burgeoning literature on grounding. The primary goal of this chapter is to set out and clarify some of the central issues and disputes concerning this notion. In the course of the chapter I'll weigh in on certain positions, treat others as working assumptions, and remain neutral on others. In some cases philosophers either explicitly endorse or reject the positions I discuss, while in other cases the positions have yet to be discussed in any detail.
 The plan for the chapter is as follows. I begin by distinguishing two general approaches to grounding-on one our talk of grounding in philosophy is univocal, and on the other it isn't-and consider different ways in which each view might be further developed (§2). Then I consider the logical form of grounding statements as well as the structural principles that govern grounding (§3-4). Next, I take up the matter of how the notions of grounding, modality, and reduction interact (§5-6). I close with a brief discussion of the grounds for what grounds what (§7)." (pp. 97-98)
23. ———. 2015. "Placement, Grounding, and Mental Content." In *The Palgrave Handbook of Philosophical Methods*, edited by Daly, Chris, 481-496. London: Palgrave-Macmillan.
 "Introduction: One central issue concerning philosophical methodology is this: what concepts should go into our philosophical toolbox? That is to say, what notions are appropriate to rely on in doing philosophy? This issue is relevant not only to how we should go about addressing philosophical problems but also how we're to formulate those problems in the first place. There is a burgeoning literature on the notion of grounding. I'm a proponent of grounding – I think the notion of grounding is coherent and theoretically useful. Supposing that the notion of grounding belongs in our philosophical toolbox, what consequences might this have for familiar philosophical problems? In this chapter I focus on what Jackson (1998) calls *placement problems* – problems concerning how the manifest facts (e.g. facts concerning ordinary macroscopic objects, the mental, and the moral) "fit into" the world given that the world is ultimately physical in nature.
 If we formulate placement problems in terms of grounding, we should expect new possibilities to open up with respect to how to solve them. My goal in this chapter is to show that this is precisely what happens with respect to the *content* placement problem, the problem of how to fit facts concerning mental content into the actual world given that it's ultimately physical in nature." (p. 481, a note omitted)
 References
 Jackson, F. 1998. *From Metaphysics to Ethics*. Oxford UP.

24. ———. 2018. "Grounding-Mechanical Explanation." *Philosophical Studies* no. 175:1289-1309.
Abstract: "I argue that there is an important similarity between causation and grounding. In particular I argue that, just as there is a type of scientific explanation that appeals to causal mechanisms—causal-mechanical explanation—there is a type of metaphysical explanation that appeals to grounding mechanisms—grounding-mechanical explanation. The upshot is that the role that grounding mechanisms play in certain metaphysical explanations mirrors the role that causal mechanisms play in certain scientific explanations. In this light, it becomes clear that grounding-mechanical explanations make crucial contributions to the evaluation of a variety of important philosophical theses, including priority monism and physicalism."
25. ———. 2020. "Truthmaking." In *The Routledge Handbook of Metaphysical Grounding*, edited by Raven, Michael J., 396-407. New York: Routledge.
"Before getting into the details, I should note some of the assumptions I'm going to make about grounding and truthmaking. While each of these assumptions has been challenged in the literature, they strike me as reasonable starting points. As for regimentation, I assume that grounding and truthmaking claims are to be formulated with the predicates "grounds" and "makes true" rather than sentential connectives such as "because". As for the ontological status of grounding and truthmaking, I assume that they're relations 'out there' in the domain of our ontology rather being primitive pieces of ideology. As for their relata, I assume that something is a ground, a grounded entity, or a truthmaker only if it's a *fact*, and something is made true only if it's a *proposition*. I assume that facts and propositions are structured entities, where the former are worldly in that they lack concepts or modes of presentation as constituents, and the latter are representational in that they do have such constituents. Collections of one or more facts ground other facts, and collections of one or more facts make true propositions." (p. 396, anote omitted)
26. Trogdon, Kelly, and Witmer, D. Gene. 2021. "Full and Partial Grounding." *Journal of the American Philosophical Association* no. 7:252-271.
Abstract: "While controversy about the nature of grounding abounds, our focus is on a question for which a particular answer has attracted something like a consensus. The question concerns the relation between *partial* grounding and *full* grounding. The apparent consensus is that the former is to be defined in terms of the latter. We argue that the standard way of doing this faces a significant problem and that we ought to pursue the reverse project of defining full grounding in terms of partial grounding. The guiding idea behind the definition we propose is that full grounding is what happens when partial grounding works in a way that ensures that the grounded is nothing over and above the grounds. We ultimately understand this idea in terms of iterated nothing-over-and-above claims."
27. Trueman, Robert. 2021. "Truthmaking, Grounding and Fitch's Paradox." *Analysis* no. 81:270-274.
Abstract: "Jago and Loss have recently used variations on Fitch's paradox to argue that every truth has a truthmaker, and that every fact is grounded. In this paper, I show that Fitch's paradox can also be adapted to prove the exact opposite conclusions: no truth has a truthmaker, and no fact is grounded. All of these arguments are as dialectically effective as each other, and so they are all in bad company."
References
Jago M. 2020. A short argument for truthmaker maximalism. *Analysis* 80: 40-44.
Loss R. forthcoming [2021]. There are no fundamental facts. *Analysis* 81: 32-39.
28. Tsohatzidis, Savas L. 2015. "A Problem for a Logic of 'Because'." *Journal of Applied Non-Classical Logics* no. 25:46-49.
Abstract: "A problem is raised for the introduction rules proposed in Benjamin Schnieder's (2011) 'A logic for "because"', arising in connection with (a) inferences that the "rules should not, but do, validate and (b) inferences that the rules should, but do not, validate."

References

- Schnieder, B. (2011). A logic for 'because'. *The Review of Symbolic Logic*, 4, 445–465.
29. Tugby, Matthew. 2016. "What are Dispositional Properties?" In *Reality Making*, edited by Jago, Mark, 75-98. Oxford: Oxford University Press.
Contents: List of Figures VII; List of Contributors VIII; Mark Jago: Reality-Making: Introduction 1; Martin Glazier: Laws and the Completeness of the Fundamental 11; Naomi Thompson: Metaphysical Interdependence 38; Jacek Brzozowski: Monism and Gunk 57; Matthew Tugby: What are Dispositional Properties? 75; Mark Jago: Essence and the Grounding Problem 99; Nicholas K. Jones: Object as a Determinable 121; Sonia Roca-Royes: Rethinking Origin Essentialism (for Artefacts) 152; Nathan Wildman: How (not) to be a Modalist About Essence 177; Index 197-200.
30. ———. 2021. "Grounding Theories of Powers." *Synthese* no. 198:11187-11216.
Abstract: "Necessitarianism, as we shall use the term, is the view that natural properties and causal powers are necessarily connected in some way. In recent decades the most popular forms of necessitarianism have been the anti-Humean powers-based theories of properties, such as dispositional essentialism and the identity theory. These versions of necessitarianism have come under fire in recent years and I believe it is time for necessitarians to develop a new approach. In this paper I identify unexplored ways of positing metaphysically necessary connections in nature, using the concepts of grounding and essential dependence. For example, I show that one could be a necessitarian by insisting that the properties of things necessarily *ground* their powers, and that one can maintain this while rejecting dispositional essentialism. Using different combinations of claims about grounding and essential dependence (or lack thereof), I map out a spectrum of new positions and compare them to previous theories of natural modality. Some of these positions are compatible with Humean metaphysics (given certain readings of Hume's Dictum) while others are not. The overall aim of the paper is to provide a new metaphysical framework for understanding theories of powers and thereby launch a new necessitarian research programme."
31. Turner, Jason. 2016. "Curbing Enthusiasm About Grounding." *Philosophical Perspectives* no. 30:366-396.
"Metaphysics in the high old style is back in fashion, and this season's favorite accessory is a relation philosophers are pleased to call metaphysical grounding. By 'grounding', the fashionistas do not intend merely the venerable project of trying to figure out how the ordinary appearances are settled by ultimate reality. They mean, instead, a very particular sort of metaphysical relation (or something like a relation) used to tie together the fundamental with the non-fundamental— a kind of priority relation that structures the world.
Some stodgier critics have objected that metaphysics' newfound enthusiasm for grounding is misguided, because the notion is in fact *unintelligible*: Talk of the alleged relation makes no sense, and metaphysicians have simply fooled themselves into thinking otherwise. I do not share this diagnosis—as far as I can see, talk of the relation makes perfect sense. But I too want to curb the discipline's grounding-based enthusiasm. The enthusiasm has led many to make wild claims about grounding's virtues, such as that we can use it to shield entities from Ockham's razor. And it has led many to embark on grand grounding-theoretic projects, such as the search for its 'logic'. I think many of these claims unfounded and projects unpromising: Grounding's marketing campaign has made promises which, I will argue, it cannot deliver." (p. 366)
32. Ujvári, Márta. 2020. "Metaphysical Explanation Separated from Grounding." *Metaphysica* no. 21:55-69.
Abstract: Grounding is typically associated to metaphysical explanation on the basis of the explanatory role's being characteristic of grounding as well. Some even say that all what metaphysical explanation does is tracking the grounding relation.

However, recently Maurin has argued that grounding does not “inherit” its properties from metaphysical explanation and, consequently, we should be “separatists”. In this paper separatism will be defended from the perspective of metaphysical explanation thus giving a turn to the separatist strategy. In particular, the structural difference between grounding and metaphysical explanation will be pointed out as affecting also the explanatory function. It will be shown how dispositions and essentialist claims play different roles in the two theories. Lastly, it will be claimed that the two theories diverge on accounting for law-like and accidental generalizations. Provided these arguments are sound, there will be good reason to tell metaphysical explanation apart from grounding.

References

Maurin, A. S. 2019. “Grounding and Metaphysical Explanation: it’s Complicated.” *Philosophical Studies* 176 (6): 1573–94

33. Valore, Paolo. 2021. "A Proposed Taxonomy of Realism in Conceptual Frameworks." *European Journal of Pragmatism and American Philosophy* no. 13:1-10.
 "One of the complications of a clear evaluation of different positions in metaphysics and ontology is discrepancy in terminology and variance, if not incongruity, of basic concepts associated to relevant notions. This is a common problem in philosophy, but it seems that it has been exacerbated in recent debates about different clusters of positions called “realism.”
 (...) Evidently, a significant reconstruction of the various systems (not even of the most important authors) and the many possible foundations and justifications of “realism” is out of the scope of this paper (a well-done comprehensive synopsis of versions of “realism” can be easily found in several other papers and encyclopedia entries, for instance Miller 2019). Instead of trying to infer a definition of “realism,” as if by induction, from the countless pictures given by philosophers identifying (or identified by others) as “realists” in the history of philosophy or in a catalogue of current debates, here I offer a taxonomy provided by a conceptual analysis of the notion of “realism” in what I think are its sub-concepts, recognizing three different conceptual frameworks." (p. 2)
 References
 Miller Alexander, (2019), “Realism,” in E. N. Zalta (ed.), *The Stanford Encyclopedia of Philosophy* (Winter 2019 Edition).
34. Väyrynen, Pekka. 2013. "Grounding and Normative Explanation." *Aristotelian Society Supplementary Volume* no. 87:156-178.
 Abstract: "This paper concerns non-causal normative explanations such as ‘This act is wrong because/in virtue of ’ (where the blank is often filled out in non-normative terms, such as ‘it causes pain’). The familiar intuition that normative facts aren’t brute or ungrounded but anchored in non-normative facts seems to be in tension with the equally familiar idea that no normative fact can be fully explained in purely non-normative terms. I ask whether the tension could be resolved by treating the explanatory relation in normative explanations as the sort of ‘grounding’ relation that receives extensive discussion in recent metaphysics. I argue that this would help only under controversial assumptions about the nature of normative facts, and perhaps not even then. I won’t try to resolve the tension, but draw a distinction between two different sorts of normative explanations (one concerning ‘bearers’, the other concerning ‘sources’ of normativity) which helps to identify constraints on a resolution. One distinctive constraint on normative explanations in particular might be that they should be able to play a role in normative justification."
35. von Solodkoff, Tatjana. 2012. "Straightening Priority Out." *Philosophical Studies* no. 161:391-401.
 Abstract: "In recent work, Louis deRosset (*Philosophical Studies* 149:73-97, 2010) has argued that priority theorists, who hold that truths about macroscopic objects can be metaphysically explained without reference to such things, cannot meet an

independently motivated constraint upon good explanation. By clarifying the nature of the priority theorist's project, I argue that deRosset's argument fails to establish its conclusion."

References

deRosset, L. (2010). Getting priority straight. *Philosophical Studies*, 149, 73-97.

36. Wallner, Michael. 2021. "The Ground of Ground, Essence, and Explanation." *Synthese* no. 198:1257-1277.
 Abstract: "This paper is about the so-called meta-grounding question, i.e. the question of what grounds grounding facts of the sort 'φ is grounded in Γ'. An answer to this question is pressing since some plausible assumptions about grounding and fundamentality entail that grounding facts must be grounded. There are three different accounts on the market which each answer the meta-grounding question differently: Bennett's and deRosset's "Straight Forward Account" (SFA), Litland's "Zero-Grounding Account" (ZGA), and "Grounding Essentialism" (GE). I argue that if grounding is to be regarded as metaphysical explanation (i.e. if unionism is true), (GE) is to be preferred over (ZGA) and (SFA) as only (GE) is compatible with a crucial consequence of the thought that grounding is metaphysical explanation. In this manner the paper contributes not only to discussions about the ground of ground but also to the ongoing debate concerning the relationship between ground, essence, and explanation."
 "Versions of (GE) are discussed in Rosen (2010), Fine (2012) and Dasgupta (2014)." (p. 1258)
 References
 Bennett, K. (2011). By our bootstraps. *Philosophical Perspectives*, 25, 27–41.
 Dasgupta, S. (2014). The possibility of physicalism. *Journal of Philosophy*, 111(9/10), 557–592.
 deRosset, L. (2013). Grounding explanations. *Philosopher's Imprint*, 13(7), 1–26.
 Fine, K. (2012). Guide to ground. In F. Correia & B. Schnieder (Eds.), *Metaphysical grounding: Understanding the structure of reality* (pp. 37–80). Cambridge: CUP.
 Litland, J. E. (2017). Grounding ground. In K. Bennett & D. Zimmerman (Eds.), *Oxford studies in metaphysics* (Vol. 10, pp. 279–315). Oxford: OUP.
 Rosen, G. (2010). Metaphysical dependence: Grounding and reduction. In B. Hale & A. Hoffmann (Eds.), *Modality: Metaphysics, logic, and epistemology* (pp. 109–136). Oxford: OUP.
37. Wang, Jennifer. 2020. "Cause." In *The Routledge Handbook of Metaphysical Grounding*, edited by Raven, Michael J., 300-311. New York: Routledge.
 "The notion of ground is often introduced as the metaphysical analogue of the notion of cause. For the most part, no more is said about the connection between the two notions, for instance, the extent of the analogy or whether theorizing about one notion might shed light on the other. But in recent literature, some philosophers have developed a sustained analogy between grounding and causation, with the end goal of showing that they present a unified phenomenon. Although there are other questions about the connection between grounding and causation, this chapter centers on the unification claim." (300, a note omitted)
38. Werner, Jonas. 2020. "Plural Grounding and the Principle of Sufficient Reason." *Analysis* no. 80:90-95.
 "McDaniel (2019) presents a novel argument that aims to establish that the principle of sufficient reason fails if there is a contingent truth. It is a variant of an argument to the same conclusion that has been presented by van Inwagen 1983: 202–4. Van Inwagen's argument has been shown to fail if the principle of sufficient reason is formulated as the thesis that every truth has a full ground (see e.g. Schnieder and Steinberg 2015). The crucial aspect of McDaniel's new argument is that it employs a notion of plural grounding, with plural grounding allowing that 'many facts can collectively ground many facts collectively' (McDaniel 2019: 232). McDaniel defines that 'a plurality of truths are contingently true if and only if at least one of them is contingently true' (2019: 233) and he formulates the principle of sufficient

reason as the thesis that ‘any plurality of contingent truths has a full ground’ (2019: 232). I will henceforth use ‘(PPSR)’ (for ‘plural principle of sufficient reason’) to refer to this thesis.” (p. 90)

(...)

"General irreflexivity is an assumption that is needed for McDaniel’s argument against (PPSR) to work. If I have been successful in showing that (PPSR) only captures the spirit of the principle of sufficient reason if it is formulated in terms of a notion of plural grounding for which general irreflexivity fails, then I have rebutted McDaniel’s attack on the principle of sufficient reason." (p. 94)

References

McDaniel, K. 2019. The principle of sufficient reason and necessitarianism. *Analysis* 79: 230–36.

Schnieder, B. and A. Steinberg. 2015. Without reason? *Pacific Philosophical Quarterly* 96: 523–41.

van Inwagen, P. 1983. *An Essay on Free Will*. Oxford: Oxford University Press.

39. ———. 2021. "Arbitrary Grounding." *Philosophical Studies*.
First Online 10 July 2021.
Abstract: "The aim of this paper is to introduce, elucidate and defend the usefulness of a variant of grounding, or metaphysical explanation, that has the feature that the grounds explain of some states of affairs that one of them obtains without explaining which one obtains. I will dub this variant *arbitrary grounding*. After informally elucidating the basic idea in the first section, I will provide three metaphysical hypotheses that are best formulated in terms of arbitrary grounding in the second section. The third section will be concerned with the relation between arbitrary grounding and non-arbitrary grounding. The fourth section will compare arbitrary grounding to two extant proposals in the literature."
40. ———. 2022. *The Modalities of Essence and Ground*. Frankfurt: Vittorio Klostermann.
Contents: Acknowledgements IX; 1. Introduction 1; 2. Immediate Minimal Grounds 19; 3. Constructing the Semantics 39; 4. Essence 75; 5. Necessity and Possibility 111; 6. Grounding 133; 7. Comparison and Conclusion 163; Final Remarks 175; Bibliography 177-183.
"Introduction: In this first chapter I present the core idea of this book and lay out its structure. Furthermore, I introduce its main topics. I will start by painting a big picture of the view I want to develop in this work and I situate it in the present philosophical landscape. Afterwards, I will briefly discuss the central concepts of essence, grounding and metaphysical modality and I will specify the ways in which I will use them in the subsequent chapters. Finally, an overview of the following chapters will be provided.
1.1 The Basic Idea
In this book I develop and defend a unified semantic treatment of essence, grounding and metaphysical modality. Statements like “Socrates is essentially wise”, “Possibly the number of ducks in Hamburg is odd” and “Bob the ball is red grounds Bob the ball is coloured” can be modelled in the resulting semantics. It will take the form of a world semantics similar to the standard possible world semantics for metaphysical modality. One of its central features will be that not only possible worlds, but also impossible worlds - ways the world might not have been - are its semantic values. The semantics will be argued to shed light on the deep philosophical connections between three of the most important posits of contemporary metaphysics. It will be shown to bear relevance to some important and controversial issues regarding the relations between essence, ground and modality.
The core idea standing in the background of my semantics is to model essences with accessibility-relations, relations that specify which worlds can see other worlds, metaphorically speaking. Essences modelled with accessibility-relations will be the sole primitive of the view to be developed. Accounts of grounding and metaphysical modality will be given in terms of essence." (p. 1)

41. Whitcomb, Dennis. 2012. "Grounding and Omniscience." *Oxford Studies in Philosophy of Religion* no. Vol. 4:173-201.
Abstract: "This chapter argues that omniscience is impossible and therefore that there is no God. The argument turns on the notion of grounding. The chapter begins by illustrating and clarifying that notion. It then lays out five claims, one of which is the claim that there is an omniscient being, and the other four of which are claims about grounding. It shows that these five claims are jointly inconsistent. It then argues for the truth of each of them, except the claim that there is an omniscient being. From these arguments it follows that there are no omniscient beings and thus that there is no God."
42. Wigglesworth, John. 2018. "Grounding in Mathematical Structuralism." In *Reality and its Structure: Essays in Fundamentality*, edited by Bliss, Ricki Leigh and Priest, Graham, 217-236. Oxford: Oxford University Press.
"Conclusion:L We have argued for two grounding claims involving mathematical entities that are relevant to the mathematical structuralist: that the identity of a mathematical object is grounded in the identity of the structure it belongs to, and in the identities of other mathematical objects in that structure. This argument has proceeded by describing mathematical structures in terms of unlabelled graphs. With this account of structure to hand, we present standard identity conditions for objects in a structure and for structures themselves, which allow us to articulate the notion of the identity of a mathematical entity in the context of structuralism. We then interpret grounding claims involving these entities as claims about what happens in the space of possible mathematical structures. This is an interpretation which makes no reference to any particular systems or realizations that exemplify the structures in question. And so, unlike Linnebo's account, it is an account of grounding that is available to both the ante rem and in re non-eliminativist structuralists. On this interpretation, we argue that the grounding claims are true. Their truth follows from, or is at least evidenced by, the truth of the relevant corresponding necessity claims, claims ranging over the space of possible mathematical structures." (p. 232)
43. Wildman, Nathan. 2016. "How (not) to be a Modalist About Essence." In *Reality Making*, edited by Jago, Mark, 177-196. Oxford: Oxford University Press.
Contents: List of Figures VII; List of Contributors VIII; Mark Jago: Reality-Making: Introduction 1; Martin Glazier: Laws and the Completeness of the Fundamental 11; Naomi Thompson: Metaphysical Interdependence 38; Jacek Brzozowski: Monism and Gunk 57; Matthew Tugby: What are Dispositional Properties? 75; Mark Jago: Essence and the Grounding Problem 99; Nicholas K. Jones: Object as a Determinable 121; Sonia Roca-Royes: Rethinking Origin Essentialism (for Artefacts) 152; Nathan Wildman: How (not) to be a Modalist About Essence 177; Index 197-200.
44. Wilhelm, Isaac. 2020. "An Argument for Entity Grounding." *Analysis* no. 80:500-507.
"According to those I will call 'fact-only grounders' (Rosen 2010 and Fine 2012), grounding only obtains between facts. Physical objects, abstract objects, events and other non-fact entities do not ground anything. According to those I will call 'entity grounders' (Schaffer 2009 and deRosset 2013), nonfact entities can serve as grounds. Facts can ground, but so can physical objects, abstract objects and perhaps other kinds of entities.
In this paper, I give an argument in favour of entity grounding over fact only grounding. Put roughly, the argument is this: entity grounders can give a more unified, less disjunctive account of the grounds of identity facts than fact-only grounders. After presenting the argument, I consider some responses that fact-only grounders might give." (p. 500, a note omitted)
References
deRosset, L. 2013. Grounding explanations. *Philosophers' Imprint* 13: 1–26.
Fine, K. 2012. Guide to ground. In *Metaphysical Grounding*, eds. F. Correia and B. Schnieder, 37–80. Cambridge: Cambridge University Press.

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- Schaffer, J. 2009. On what grounds what. In *Metametaphysics*, eds. D. Chalmers, D. Manley and R. Wasserman, 347–83. New York, NY: Oxford University Press.
45. ———. 2021. "Grounding and Propositional Identity." *Analysis* no. 81:80-81.
Abstract: "I show that standard grounding conditions contradict standard conditions for the identities of propositions."
46. Williams, J. Robert G. 2012. "Requirements on Reality." In *Metaphysical Grounding: Understanding the Structure of Reality* edited by Correia, Fabrice and Schnieder, Benjamin, 165-185. Cambridge: Cambridge University Press.
"My focus in this chapter is how *revisionary* we need to be about wider theory, in order to incorporate the minimal metaphysics.
In Section 6.1 I outline a 'Moorean' epistemological challenge: that overly revisionary or error-theoretical theories of the world will *not be reasonable to believe* for those that start off with a fair share of common sense and a healthy respect for the testimony of best science. I outline two strategies for responding to this challenge by reconciling educated common sense and minimal metaphysics – 'structured metaphysics', in the mode of Fine and Schaffer, and the linguistic strategies favoured by Quine and contemporary fictionalists. Section 6.2 focuses on some familiar 'representational' strategies; and Section 6.3 develops my own favoured version of this strategy" (p. 165)
47. Wilsch, Tobias. 2015. "The Nomological Account of Ground." *Philosophical Studies* no. 172:3293-3312.
Abstract: "The article introduces and defends the Nomological Account of ground, a reductive account of the notion of metaphysical explanation in terms of the laws of metaphysics. The paper presents three desiderata that a theory of ground should meet: it should explain the modal force of ground, the generality of ground, and the interplay between ground and certain mereological notions. The bulk of the paper develops the Nomological Account and argues that it meets the three desiderata. The Nomological Account relies on two central notions: the notion of a 'law of metaphysics' and the notion of 'determination via the laws'. The paper offers the constructional conception of the laws of metaphysics, on which the metaphysical laws are general principles that characterize construction–operations such as composition, constitution, or set-formation. The role of determination in the account is explained and some reductive approaches to the notion are sketched. The case for the Nomological Account presented in this article is also a case for the laws of metaphysics. Since the Nomological Account offers a promising approach to metaphysical explanation we should take the laws of metaphysics seriously."
48. ———. 2016. "The Deductive-Nomological Account of Metaphysical Explanation." *Australasian Journal of Philosophy* no. 94:1-23.
Abstract: "The paper explores a deductive-nomological account of metaphysical explanation: some truths metaphysically explain, or ground, another truth just in case the laws of metaphysics determine the latter truth on the basis of the former. I develop and motivate a specific conception of metaphysical laws, on which they are general rules that regulate the existence and features of derivative entities. I propose an analysis of the notion of 'determination via the laws', based on a restricted form of logical entailment. I argue that the DN-account of ground can be defended against the well-known objections to the DN-approach to scientific explanation. The goal of the paper is to show that the DN-account of metaphysical explanation is a well-motivated and defensible theory."
49. ———. 2020. "Laws of Metaphysics." In *The Routledge Handbook of Metaphysical Grounding*, edited by Raven, Michael J., 425-436. New York: Routledge.
"If causal explanations are supported by general laws, non-causal explanation might be supported by general laws as well. Consider metaphysical explanations like 'Peter the elephant is colored because he is grey' and '{Socrates} exists because Socrates exists'. These explanations might arise from general laws which entail that

- any grey object is also colored and that any object is the member of its singleton set (see Glazier's entry "Ground and Explanation", Chapter 8 in this volume). The role of such laws of metaphysics is to guide the bottom-up development of facts, much like the role of laws of nature is to govern facts along the temporal axis." (p. 425)
50. Wilson, Alastair. 2018. "Grounding Entails Counterpossible Non-Triviality." *Philosophy and Phenomenological Research* no. 92:716-728.
Abstract. "This paper outlines a non-reductive counterfactual account of grounding along interventionist lines, and uses the account to argue that taking grounding seriously requires ascribing non-trivial truth-conditions to a range of counterpossible counterfactuals. This result allows for a diagnosis of a route to scepticism about grounding, as deriving at least in part from scepticism about non-trivial counterpossible truth and falsity."
51. ———. 2018. "Metaphysical Causation." *Noûs* no. 52:723-751.
Abstract: "There is a systematic and suggestive analogy between grounding and causation. In my view, this analogy is no coincidence. Grounding and causation are alike because grounding is a type of causation: metaphysical causation. In this paper I defend the identification of grounding with metaphysical causation, drawing on the causation literature to explore systematic connections between grounding and metaphysical dependence counterfactuals, and I outline a non-reductive counterfactual theory of grounding along interventionist lines."
52. ———. 2020. "Classifying Dependencies." In *The Foundation of Reality: Fundamentality, Space, and Time*, edited by Glick, David, Darby, George and Marmodoro, Anna, 46-68. Oxford: Oxford University Press.
"These days, metaphysical questions are frequently cast in terms of the ideology of grounding. This notion is usually introduced in explicit contrast to causation: ground is supposed to be a non-causal dependency relation that supports metaphysical explanations, just as causal relations support causal explanations. But the distinction between causation and grounding has never been very clear-cut, and recent work (Schaffer 2016; A. Wilson 2018a) has highlighted how deep the structural similarities between the notions run. Schaffer concludes that causation and grounding are merely closely analogous, whereas I have defended the more radical view that grounding is a specific type of causation; however, I set that heterodox view aside for the purposes of this chapter and proceed on the assumption that there is a coherent distinction to be drawn between the two notions." (p. 46)
(...)
"First, Section 2.2 provides some relevant background on causation and grounding. Then in Sections 2.3-28 I examine six obvious criteria by which to distinguish these two notions. I argue that each of the criteria is problematic in some way or other, which motivates the search for a better criterion. In Section 2.9 I offer my own account of the distinction between grounding and causation in terms of how the dependency is mediated. This mediation criterion can explain the appeal of the next best candidate criteria—the temporal criterion and the modal criterion—without suffering from their problems. Section 2.10 provides further support for the mediation criterion by arguing that it makes the classification of dependencies in physics appropriately sensitive to the interpretation of the physical theories involved.
Section 2.11 is a conclusion." (p. 47)
53. Wilson, Jessica M. 2014. "No Work for a Theory of Grounding." *Inquiry: An Interdisciplinary Journal of Philosophy* no. 57:535-579.
Abstract: "It has recently been suggested that a distinctive metaphysical relation — 'Grounding' — is ultimately at issue in contexts in which some goings-on are said to hold 'in virtue of', be (constitutively) 'metaphysically dependent on', or be 'nothing over and above' some others. Grounding is supposed to do good work (better than merely modal notions, in particular) in illuminating metaphysical dependence. I argue that Grounding is also unsuited to do this work. To start, Grounding alone cannot do this work, for bare claims of Grounding leave open such

basic questions as whether Grounded goings-on exist, whether they are reducible to or rather distinct from Grounding goings-on, whether they are efficacious, and so on; but in the absence of answers to such basic questions, we are not in position to assess the associated claim or theses concerning metaphysical dependence. There is no avoiding appeal to the specific metaphysical relations typically at issue in investigations into dependence—for example, type or token identity, functional realization, classical mereological parthood, the set membership relation, the proper subset relation, the determinable/determinate relation, and so on—which are capable of answering these questions. But, I argue, once the specific relations are on the scene, there is no need for Grounding."

54. ———. 2016. "The Unity and Priority Arguments for Grounding." In *Scientific Composition and Metaphysical Ground*, edited by Aizawa, Ken and Gillett, Carl, 171-204. London: Palgrave MacMillan.
 "...in two recent papers, however, Jonathan Schaffer (2016 and this volume) aims to develop a better version of the Unity argument, and offers certain objections to my reasons for rejecting the Priority argument. In this paper, I consider and respond to these new motivations for Grounding. I start with some clarificatory remarks concerning the dialectical import of Grounding, its assumed relata, and how I take the ideology/ontology distinction to be relevant to the discussion; I then present and respond to Schaffer's new versions of the Unity and Priority arguments." (p. 172)
 References
 Schaffer, J. (this volume). Ground Rules: Lessons from Wilson.
 Schaffer, J. (2016). Grounding in the image of causation. *Philosophical Studies*, 173 , 49–100.
55. ———. 2016. "Grounding-Based Formulations of Physicalism." *Topoi* no. 35:1-18.
 Abstract: "I problematize Grounding-based formulations of physicalism. More specifically, I argue, first, that motivations for adopting a Grounding-based formulation of physicalism are unsound; second, that a Grounding-based formulation lacks illuminating content, and that attempts to imbue Grounding with content by taking it to be a (nonmonotonic, hyperintensional) strict partial order are unuseful (since 'over and above' relations such as strong emergence may also be non-monotonic hyperintensional strict partial orders) and problematic (in ruling out reductive versions of physicalism, and relatedly, in undermining the ostensive definition of primitive Grounding as operative in any context where idioms of dependence are at issue); third, that conceptions of Grounding as constitutively connected to metaphysical explanation conflate metaphysics and epistemology, are ultimately either circular or self-undermining, and controversially assume that physical dependence is incompatible with explanatory gaps; fourth, that in order to appropriately distinguish physicalism from strong emergentism (physicalism's primary rival), a Grounding-based formulation must introduce one and likely two primitives in addition to Grounding; and fifth, that understanding physical dependence in terms of Grounding gives rise to 'spandrel' questions, including, e.g., "What Grounds Grounding?", which arise only due to the overly abstract nature of Grounding."
56. ———. 2016. "Metaphysical Emergence; Weak and Strong." In *Metaphysics in Contemporary Physics*, edited by Bigaj, Tomasz and Wüthrich, Christian 345-398. Leiden: Brill Rodopi.
 Abstract: "Motivated by the seeming structure of the sciences, metaphysical emergence combines broadly synchronic dependence coupled with some degree of ontological and causal autonomy. Reflecting the diverse, frequently incompatible interpretations of the notions of dependence and autonomy, however, accounts of emergence diverge into a bewildering varieties.
 Here I argue that much of this apparent diversity is superficial. I first argue, by attention to the problem of higher-level causation, that two and only two strategies for addressing this problem accommodate the genuine emergence of special science entities. These strategies in turn suggest two distinct schema for metaphysical

emergence – ‘Weak’ and ‘Strong’ emergence, respectively. Each schema imposes a condition on the powers of (features of) entities taken to be emergent: Strong emergence (associated with British emergentism) requires that higher-level features have more token powers than their dependence base features, whereas (following Wilson 1999) Weak emergence (associated with non-reductive physicalism) requires that higher-level features have a proper subset of the token powers of their dependence base features. Importantly, the notion of ‘power’ at issue here is metaphysically neutral, primarily reflecting commitment just to the plausible thesis that what causes an entity may (perhaps only contingently) bring about are associated with how the entity is – that is, with its features."

References

Wilson, J. (1999). How Superduper does a Physicalist Supervenience Need to Be? *The Philosophical Quarterly* 49, 33–52.

57. Wirling, Ylwa Sjölin. 2020. "Is Backing Grounding?" *Ratio* no. 33:129-137.
Abstract: "Separatists are grounding theorists who hold that grounding relations and metaphysical explanations are distinct, yet intimately connected in the sense that grounding relations back metaphysical explanations, just as causal relations back causal explanations. But Separatists have not elaborated on the nature of the ‘backing’ relation. In this paper, I argue that backing is a form of (partial) grounding. In particular, backing has many of the properties commonly attributed to grounding, and taking backing to be partial grounding allows Separatists to make the most of their position vis-à-vis their Unionist opponents."
58. Witmer, D. Gene, Butchard, William, and Trogdon, Kelly. 2005. "Intrinsicity without Naturalness." *Philosophy and Phenomenological Research* no. 70:326-350.
Abstract: "Rae Langton and David Lewis have proposed an account of ‘intrinsic property’ that makes use of two notions: being independent of accompaniment and being natural. We find the appeal to the first of these promising; the second notion, however, we find mystifying.
In this paper we argue that the appeal to naturalness is not acceptable and offer an alternative definition of intrinsicity. The alternative definition makes crucial use of a notion commonly used by philosophers, namely, the notion of one property being had in virtue of another property. We defend our account against three arguments for thinking that this ‘in virtue of’ notion is unacceptable in this context. We also take a look at a variety of cases in which the definition might be applied and defend it against potential counterexamples. The upshot, we think, is a modest but adequate account of what we understand by ‘intrinsic property.’"
References
Langton, R. and Lewis, D. 1998. ‘Defining ‘Intrinsic’,’ *Philosophy and Phenomenological Research* 58, 333-45. Reprinted (1999) in Lewis’ *Papers in Metaphysics and Epistemology* (Cambridge: Cambridge University Press).
59. Woods, Jack. 2017. "Emptying a Paradox of Ground." *Journal of Philosophical Logic* no. 47:631-648.
Abstract: "Sometimes a fact can play a role in a grounding explanation, but the particular content of that fact make no difference to the explanation—any fact would do in its place. I call these facts vacuous grounds. I show that applying the distinction between-vacuous grounds allows us to give a principled solution to Kit Fine and Stephen Kramer’s paradox of (reflexive) ground. This paradox shows that on minimal assumptions about grounding and minimal assumptions about logic, we can show that grounding is reflexive, contra the intuitive character of grounds. I argue that we should never have accepted that grounding is irreflexive in the first place; the intuitions that support the irreflexive intuition plausibly only require that grounding be non-vacuously irreflexive. Fine and Kramer’s paradox relies, essentially, on a case of vacuous grounding and is thus no problem for this account."
References
Fine, K. (2010). Some puzzles of ground. *Notre Dame Journal of Formal Logic*, 51(1), 97–118.

- Krämer, S. (2013). A simpler puzzle of ground. *Thought: A Journal of Philosophy*, 2(2), 85–89.
60. Woodward, James. 2017. "Interventionism and the Missing Metaphysics." In *Metaphysics and the Philosophy of Science: New Essays*, edited by Slater, Matthew H. and Yudell, Zanja, 193-227. New York: Oxford University Press.
 "A number of philosophers with a metaphysical orientation have criticized *Making Things Happen* for its failure to provide an account of the metaphysical foundations or grounds or truth-makers for causal and explanatory claims. I originally attempted to write an ordinary paper responding to these criticisms but found this to be a very difficult undertaking: I realized that I disagreed with my critics about so much that putting everything into an ordinary "linear" argument was impossible.
 (...)
 What follows is, I readily admit, a caricature that makes no attempt to be fair or balanced. Many of the philosophers I know who are analytical metaphysicians do not share the affect and attitudes of my Professor Metafisico, and many are far more knowledgeable about science.
 I hope that readers will take the dialogue in the spirit in which it is intended— as an attempt to be provocative and to raise in a sharp, unnuanced way some questions that deserve more attention than they have hitherto received. These include issues about just what metaphysical grounding consists in or amounts to, why (or when or for what purposes) it is required, and how providing metaphysical foundations relates to providing scientific explanations of a more ordinary empirical sort and to methodological concerns that at least in the past were regarded as an important component of philosophy of science. In particular, I want to raise the question of whether it is somehow obligatory that all philosophers of science do the sort of metaphysics associated with providing grounds or truth-makers or (as I maintain and hope) there are kinds of inquiry in philosophy of science having to do with methodology and the interpretation of the content of the particular scientific theories that can be pursued independently of the kinds of concerns that animate analytical metaphysicians." (pp. 193-194)
 References
 James Woodward (2003). *Making Things Happen: A Theory of Causal Explanation*, New York: Oxford University Press.
61. Wygoda Cohen, Shlomit. 2020. "Not All Partial Grounds Partly Ground: Some Useful Distinctions in the Theory of Grounding." *Philosophy and Phenomenological Research* no. 100:75-92.
 Abstract: "The aim of this paper is to argue for some useful distinctions in the theory of grounding. I do so by first introducing the notion of grounding, discussing some of its features, and arguing that grounds must play some role in bringing about what they ground (sec. 1). I then argue that there are various distinct roles a fact may play in bringing about another, and more particularly that we should distinguish between three such roles; enablers, partial grounds, and facts that partly ground (sec. 2). Finally, I present two theoretical advantages to incorporating these distinctions into our theory of grounding. Namely, that it reframes, and arguably dissolves, the contingentist-necessitarian debate (sec. 3), and that it helps to elegantly deal with the purported counterexamples to the transitivity of grounding and thus maintain the plausible elements of the assumption that grounding is a transitive relation (sec. 4)."
62. Yablo, Stephen. 1982. "Grounding, Dependence, and Paradox." *Journal of Philosophical Logic* no. 11:117-137.
 "The idea that grounding is an important component of our intuitive notion of well-definedness has long formed part of the conceptual background axiomatic set theory.' Yet only in recent years have we come to appreciate how heavily grounding figures in our intuitions of semantical well- definedness. The culmination of this developing appreciation, for the present at least, is Kripke's celebrated Theory of

Truth; and while it would be a mistake to say that Kripke's ideas came as a complete surprise to concerned semanticists, it would be."

(...)

"The first purpose of this paper is to hasten the process by attempting to place some aspects of Kripke's work into formal and philosophical perspective. The second purpose has to do with my feeling that Kripke has only done half, albeit the first and therefore by far the most important half, of the The intuition of grounding is, I want to maintain, a two-sided intuition. the one side is what I'll call the *inheritance* aspect. (pp. 117-118)

(...)

"This paper is divided into two parts, one theoretical and one (comparatively) applied. Sections 2-7 deal with the development of dependence in an abstract setting. Our main result is that any collection with an inheritance-style characterization admits a canonically related dependence-style characterization. In Sections 8-10 we show in a series of applications how the dependence way of doing things can improve our understanding of truth, semantic level, and paradoxicality." (p- 119)

63. Yip, Jack. 2015. "Truthmaking as an Account of How Grounding Facts Hold." *Kriterion - Journal of Philosophy* no. 29:11-32.

Abstract: "Grounding, as a way to articulate ontological dependence, faces the problem of what grounds grounding facts themselves (such as the fact that the singleton of Socrates is grounded in Socrates).

This problem stems from the need to account for the holding of grounding facts, which generates the hierarchical structure of ontological dependence. Within the grounding framework, grounding facts are either ungrounded or grounded. I will first argue that neither option can provide us with a satisfactory account. The main reason is that non-fundamental entities have to be counted as fundamental or involved in the essences of fundamental entities in order for either of the two options to work - the non-fundamental is being smuggled into the fundamental. My suggestion is to appeal to the notion of truthmaking and tackle the problem about the holding of grounding facts outside the grounding framework|instead of asking what grounds grounding facts, I ask what makes grounding claims true. Truthmaking is a prima facie relation holding between the representational and the non-representational such that the latter makes the former true. With the principle 'if (p) is true, then it is a fact that p,' we can account for the holding of grounding facts in a derivative sense. As a proposition contains the information about its truthmaker, the nature of grounding claims will tell us how grounding facts hold. I accept a realm of concepts which make up propositions (which might be needed already if there are propositions and propositions are compositional). These concepts will act as part of the truthmaker for grounding claims (in addition to the non-conceptual fundamental entities) - the concept of the ground must figure in the concept of the grounded.

For a concept to figure in another, it is to be involved in the constitutive essence of the latter (analogous to Kit Fine's idea that the ground of a grounded entity figures in the essence of the grounded entity). This account will not smuggle anything non-fundamental into the fundamental realm. The implication is that ontological dependence stems from our different kinds of conceptualisations (perhaps of the same stuff, as in the concepts of water and H₂O), which justifies metaphysicians' armchair method."

64. Zanetti, Luca. 2021. "Grounding and Auto-abstraction." *Synthese* no. 198:10187-10205.

Abstract: "Abstraction principles and grounding can be combined in a natural way (Rosen in Hale B, Hoffmann A (eds) *Modality: metaphysics, logic, and epistemology*, Oxford University Press, Oxford, pp 109–136, 2010; Schwartzkopff in *Grazer philosophische studien* 82(1):353–373, 2011). However, some ground-theoretic abstraction principles entail that there are circles of partial ground (Donaldson in *Noûs* 51(4):775–801, 2017).

- I call this problem auto-abstraction. In this paper I sketch a solution. Sections 1 and 2 are introductory. In Sect. 3 I start comparing different solutions to the problem. In Sect. 4 I contend that the thesis that the right-hand side of an abstraction principle is (metaphysically) prior to its left-hand side motivates an independence constraint, and that this constraint leads to predicative restrictions on the acceptable instances of ground-theoretic abstraction principles. In Sect. 5 I argue that auto-abstraction is acceptable unless the left-hand side is essentially grounded by the right-hand side. In Sect. 6 I highlight several parallelisms between auto-abstraction and the puzzles of ground. I finally compare my solution with the strategies listed in Sect. 3."
65. Zimmermann, Alexander, Kleinknecht, Reinhard, and Dorn, Georg J. W. 2020. "Grounding from a Syntactic Point of View: A Sentential-Logical Approach." *Erkenntnis*.
First online 3 March 2020.
Abstract: "We define the term \ulcorner a set T of sentential-logical formulae grounds a sentential-logical formula A from a syntactic point of view \urcorner in such a way that A is a syntactic sentential-logical consequence of T , and specific additional syntactic requirements regarding T and A are fulfilled. These additional requirements are developed strictly within the syntactics of sentential-logical languages, the three most important being new, namely: to be atomically minimal, to be minimal in degree, and not to be conjunction-like. Our approach is independent of any specific sentential-logical calculus."
66. Zylstra, Justin. 2018. "The Essence of Grounding." *Synthese* no. 196:5137-5152.
Abstract: "I develop a reduction of grounding to essence. My approach is to think about the relation between grounding and essence on the model of a certain concept of existential dependence. I extend this concept of existential dependence in a couple of ways and argue that these extensions provide a reduction of grounding to essence if we use sorted variables that range over facts and take it that for a fact to obtain is for it to exist. I then use the account to resolve various issues surrounding the concept of grounding and its connection with essence; apply the account to paradigm cases and to the impure logic of grounding; and respond to objections."
67. ———. 2018. "Essence with Ground." *Analytic Philosophy* no. 59:193-207.
"Many metaphysicians would like to have both essence and ground in their toolkit. (1) Applications of one concept often invoke the other.
(...)
In this paper, I argue that the compatibility of essence and ground is not simply given. I do this by first giving a pentad of claims that plausibly govern the concepts of essence and ground, and how they interact. I argue that each claim in the pentad has independent albeit defeasible support but that they are jointly inconsistent. I then offer a way out of inconsistency by expanding our ideology: I introduce a non-factive operator that expresses the sort of thing an item is, in a distinctive sense of the term. The upshot is that we can make sense of the idea that something pertains to the essence of an item but involves contingency." (p. 193)
68. ———. 2019. "Making Semantics for Essence." *Inquiry: An Interdisciplinary Journal of Philosophy* no. 62:859-876.
Abstract: "In this paper, I develop a truthmaker semantics for essence and use the semantics to investigate the explanatory role of essence."
69. ———. 2020. "Essence." In *The Routledge Handbook of Metaphysical Grounding*, edited by Raven, Michael J., 324-335. New York: Routledge.
"Philosophers have recently explored various interesting relations between metaphysical grounding and essence, not all of which are compatible.
(...)
The aim of this chapter is to provide an overview of this literature. To achieve this aim in a systematic way, I divide the chapter into four sections. In the first section, I review the literature on essence. In the second section, I outline various reductive proposals: reductions of essence to ground, reductions of ground to essence, and

reductions of both to a third party. In the third section, I outline various proposed entailments: entailments from essence to ground and entailments from ground to essence. In the fourth section, I outline how essence and ground have been jointly applied toward various theoretical ends." (p. 325)