

# Theory of Ontological Dependence: Annotated bibliography

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## Annotated bibliography on ontological dependence

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### Bibliography

1. Armstrong, Joshua, and Stanley, Jason. 2011. "Singular Thoughts and Singular Propositions." *Philosophical Studies* no. 154:205-222.

- Abstract: "A singular thought about an object  $o$  is one that is directly about  $o$  in a characteristic way—grasp of that thought requires having some special epistemic relation to the object  $o$ , and the thought is ontologically dependent on  $o$ . One account of the nature of singular thought exploits a Russellian Structured Account of Propositions, according to which contents are represented by means of structured  $n$ -tuples of objects, properties, and functions. A proposition is singular, according to this framework, if and only if it contains an object as a constituent. One advantage of the framework of Russellian Structured propositions is that it promises to provide a metaphysical basis for the notion of a singular thought about an object, grounding it in terms of constituency. In this paper, we argue that the attempt to ground the peculiar features of singular thoughts in terms of metaphysical constituency fails, and draw some consequences of our discussion for other debates."
2. Asay, Jamin. 2020. "Truth(making) by Convention." *American Philosophical Quarterly* no. 57:117-128.  
 Abstract: "A common account of the distinction between analytic and synthetic truths is that while the former are true solely in virtue of meaning, the latter are true also in virtue of the way of the world. Quine famously disputed this characterization, and his skepticism over the analytic/synthetic distinction has cast a long shadow. Against this skepticism, I argue that the common account comes close to the truth, and that truthmaker theory in particular offers the resources for providing a compelling account of the distinction that preserves the basic ideas behind it, and avoids the standard criticisms facing the distinction. In particular, I argue that analytic truths are truths that ontologically depend in no way whatsoever upon what exists."
  3. Azzouni, Jody. 2012. "Simple Metaphysics and "Ontological Dependence"." In *Metaphysical Grounding: Understanding the Structure of Reality* edited by Correia, Fabrice and Schnieder, Benjamin, 234-253. Cambridge: Cambridge University Press.  
 "I've argued in other work (Azzouni 2010a, 2010b) that ordinary usage admits only two ontological statuses: existence and non-existence. Further, only things that exist have properties. Truths about those things, therefore, correspondingly correctly describe those properties, and attribute those properties to those things. Anything that doesn't exist has no properties, for anything that doesn't exist isn't in any way at all. Therefore: no thing that doesn't exist can be talked about (because there is nothing *to* talk about). That these sound like evident truisms, and indeed, that they sounded like evident truisms to Plato and Parmenides, isn't an indication that these are constraints on the *meaning* of words like "exist" and "nothing," or phrases like "there is," and "no thing." Nothing that strong follows. It *is* an indication, however, of an aspect of our *ordinary* understanding of metaphysics, of our ordinary and fundamental understanding of what there is and what there isn't." (p. 235)  
 References  
 Azzouni, J. 2010a. 'Ontology and the Word "Exist": Uneasy Relations', *Philosophia Mathematica* 18, 1: 74–101  
 \_\_\_\_\_ 2010b. *Talking About Nothing: Numbers, Hallucinations and Fictions*. Oxford University Press
  4. Banega, Horacio. 2012. "Formal Ontology as an Operative Tool in the Theories of the Objects of the Life-World: Stumpf, Husserl and Ingarden." *Symposium* no. 16:64-88.  
 Abstract: "It is accepted that certain mereological concepts and phenomenological conceptualisations presented in Carl Stumpf's *Über den psychologischen Ursprung der Raumvorstellung and Tonpsychologie* played an important role in the development of the Husserlian formal ontology. In the third *Logical Investigation*, which displays the formal relations between part and whole and among parts that make out a whole, one of the main concepts of contemporary formal ontology and metaphysics is settled: ontological dependence or foundation (*Fundierung*). My

- main objective is to display Stumpf's concepts of partial content, independent content, spatial wholes, sound wholes, and the different kinds of connection among parts, in particular, fusion (*Verschmelzung*). Second, I will show how Husserl improved this background, in particular with regards to the exact nature of the theory of manifolds (*Mannigfaltigkeitslehre*), in discussion with Georg Cantor, the father of set theory. Third, I will focus on Ingarden's use of formal ontology and on the different modes of being that can be justified by appealing to the concept of ontological dependence in its Ingardenian variations. If my interpretation is adequate, it should be inferred that formal ontology is the operative theory of phenomenological philosophy, and this must be acknowledged in its full significance with respect to the supposed independence of the phenomenological method since 1913. A further consequence, not developed in this essay, is that formal ontology can be mathematised."
5. Barnes, Elizabeth. 2018. "Symmetric Dependence." In *Reality and Its Structure: Essays in Fundamentality*, edited by Bliss, Ricki and Priest, Graham, 50-69. Oxford: Oxford University Press.  
"Metaphysical orthodoxy maintains that the relation of *ontological dependence* is irreflexive, asymmetric, and transitive. The goal of this paper is to challenge that orthodoxy by arguing that ontological dependence should be understood as non-symmetric, rather than asymmetric. If we give up the asymmetry of dependence, interesting things follow for what we can say about metaphysical explanation—particularly for the prospects of *explanatory holism*." (p. 50)
  6. Baron, Sam. 2022. "Counterfactuals of Ontological Dependence." *Journal of the American Philosophical Association*.  
Not yet published; available at PhilArchive.org.  
Abstract: "A great deal has been written about 'would' counterfactuals of causal dependence. Comparatively little has been said regarding 'would' counterfactuals of ontological dependence. The standard Lewis-Stalnaker semantics is inadequate for handling such counterfactuals. That's because some of these counterfactuals are counterpossibles, and the standard Lewis-Stalnaker semantics trivializes for counterpossibles. Fortunately, there is a straightforward extension of the Lewis-Stalnaker semantics available that handles counterpossibles: simply take Lewis's closeness relation that orders possible worlds and unleash it across impossible worlds. To apply the extended semantics, an account of the closeness relation for counterpossibles is needed. In this paper I offer a strategy for evaluating 'would' counterfactuals of ontological dependence that understands closeness between worlds in terms of the metaphysical concept of grounding."
  7. Berto, Francesco. 2012. "The Selection Problem." *Revue Internationale de Philosophie* no. 262:519-537.  
Abstract: "In *Fiction and Fictionalism*, Mark Sainsbury has recently dubbed "Selection Problem" a serious trouble for Meinongian object theories. Typically, Meinongianism has been phrased as a kind of realism on nonexistent objects: these are mind-independent things, not mental simulacra, having the properties they have independently from the activity of any cognitive agent. But how can one single out an object we have no causal acquaintance with, and which is devoid of spatio-temporal location, picking it out from a pre-determined, mind-independent set?"  
"In this paper, I set out a line of response by distinguishing different ways in which a thing may not exist. I show that the selection problem (a) does not arise for past, currently nonexistent objects; (b) may not arise also for future existents (provided one massages naïve intuitions a bit); and (c) even for mere possibilities; but (d) is a real snag for purely fictional objects, such as Holmes or Gandalf.  
As for (d), I propose a solution that forces Meinongianism to introduce a kind of ontological dependence of purely fictional nonexistent upon existents." (p. 519)  
References  
Sainsbury, M., 2010, *Fiction and Fictionalism*, Routledge, Oxford

8. Brody, B. A. 1971. "On the Ontological Priority of Physical Objects." *Noûs* no. 5:139-155.  
 "Strawson, in Chapter 1 of *Individuals*,<sup>(1)</sup> had argued that physical objects are ontologically prior to all other particulars. I believe that there is some truth to the position that he advances, but that there are also many false aspects to it. I also believe that there are immense weaknesses in Strawson's argument for his position but that it is possible to construct an alternative argument for the true aspects of it. This paper will argue for these beliefs.  
 What is meant by "ontological priority"? We shall say that an entity *a* is in a given person's ontology if and only if there is some object *b* identical with *a* such that that person believes that *b* exists and there is no object *c* identical with *a* such that that person believes that *c* does not exist.<sup>(2)</sup>" (p. 139)  
 (1) P. F. Strawson, *Individuals* (Anchor Books: 1963) all page references will be to this edition.  
 (2) We could not simply say that *a* is in one's ontology if one believes that *a* exists. For then, if you believed that the morning star, but not the evening star, existed, that star would both be and not be in your ontology. The complication introduced in the text avoids this opacity problem by saying that the star is not in your ontology. It could be changed (by deleting the last clause) to give a broader notion of one's ontological commitments or (by modifying the first clause) to give an even narrower notion of one's ontological commitments.  
 It is not necessary, for our purposes, to decide which is the best way for handling this problem.
9. Bueno, Otávio, and Shalkowski, Scott, eds. 2018. *The Routledge Handbook of Modality*. New York: Routledge.  
 Contents: Notes on Contributors XI;  
 Otávio Bueno and Scott A. Shalkowski: Introduction: Modal matters: philosophical significance 1  
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10. Calosi, Claudio. 2020. "Priority Monism, Dependence and Fundamentality." *Philosophical Studies* no. 177:1-20.  
Abstract: "Priority monism (PM) is roughly the view that the universe is the only fundamental object, that is, a concrete object that does not *depend* on any other concrete object. Schaffer, the main advocate of PM, claims that PM is compatible with dependence having two different directions: from parts to wholes for subcosmic wholes, and from whole to parts for the cosmic whole. Recently it has been argued that this position is untenable. Given plausible assumptions about dependence, PM entails that dependence has only one direction, it always goes from wholes to parts. One such plausible assumption is a principle of Isolation. I argue that, given all extant accounts of dependence on the market, PM entails No Isolation.  
The argument depends upon a particular feature of the dependence relation, namely, *necessitation* and *its direction*. In the light of this, I contend that the argument is important, insofar as it suggests that we should distinguish dependence from other cognate notions, e.g. grounding. Once this distinction is made, I suggest we should also distinguish between two different notions of fundamentality that might turn out to be not-coextensive."
11. Casey, Jack. 2022. "The Unity of Dependence." *Journal of the American Philosophical Association*:1-18.  
First online: 27 January 2022  
Abstract: "Most philosophers treat ontological dependence and metaphysical dependence as distinct relations. A number of key differences between the two relations are usually cited in support of this claim: ontological dependence's unique connection to existence, differing respective connections to metaphysical necessitation, and a divergence in their formal features. Alongside reshaping some of the examples used to maintain the distinction between the two, I argue that the additional resources offered by the increased attention the notion of grounding has received in recent years potentially offer us a way to unite the two relations, promising the attendant benefits parsimony offers, as a result."
12. Chakravartty, Anjan. 2012. "Ontological Priority: The Conceptual Basis of Non-eliminative, Ontic Structural Realism." In *Structural Realism: Structure, Object, and Causality*, edited by Landry, Elaine M. and Rickles, Dean P., 187-206. Dordrecht: Springer.  
"In this paper I consider a recent formulation of scientific realism, the core of which amounts to a provocative metaphysical doctrine. The family of views to which this innovation belongs is called "structural realism" (SR); the relevant genus within this family is now commonly referred to as "ontic structural realism" (OSR); and the novel species under consideration here is something that I will call "non-eliminative OSR", to contrast it with its older and more widely problematized sibling species, eliminative OSR. I will argue that the core metaphysical doctrine

- underlying non-eliminative OSR, advocating an “ontological priority” of the relations of objects and properties over the objects and properties themselves, is no less problematic. The result is a dilemma for those who would subscribe to OSR in either its eliminative or noneliminative forms, in hopes of finding a promising way forward for realism in the context of scientific knowledge." (p. 187)
13. ———. 2017. "Particles, Causation, and the Metaphysics of Structure." *Synthese* no. 194:2273-2289.  
Abstract: "I consider the idea of a *structure* of fundamental physical particles (as described, for example, in quantum theory) being *causal*. Causation is traditionally thought of as involving relations between entities—objects or events—that cause and are affected. On structuralist interpretations, however, it is unclear whether or how precisely fundamental particles can be causally efficacious. On some interpretations, only relations (as opposed to entities) exist; on others, particles are ontologically dependent on their relations in ways that problematize the traditional picture. I argue that thinking about causal efficacy in this context generates an inevitable pattern of reasoning. To assess the cogency of a given structuralist proposal one must take a stand with respect to a significant metaphysical challenge. Two options then emerge: skepticism about the form of structuralism at issue; or a dissolution of the challenge by means of a contentious ontological primitive. I contend that the choice between these options cannot be forced on scientific or philosophical grounds alone."
14. Chisholm, Roderick M. 1983. "Boundaries as Dependent Particulars." *Grazer Philosophische Studien* no. 20:87-95.  
"Introduction: Stephan Körner has noted that one way of drawing up a theory of categories will divide all particulars "into (a) a class of independent particulars, i.e. particulars which are ontologically fundamental, and (b) a class of dependent particulars, i.e. particulars which are not ontologically fundamental."(1) The dependent particulars might be said to be "parasitical upon" the fundamental particulars.  
I shall here discuss the nature of spatial boundaries, viewing them as dependent particulars."  
(1) Stephan Körner, *Categorical Frameworks*, Oxford: Basil Blackwell, 1970, p. 4.
15. ———. 1994. "Ontologically Dependent Entities." *Philosophy and Phenomenological Research* no. 54:499-507.  
"A discussion of the distinction between ontologically dependent and ontologically non-dependent entities presupposes a general theory of categories. I assume that there are four basic types of entity: states; contingent individuals; *abstracta*; and necessary substance. The general theory would involve five dichotomies-five ways of dividing things into exclusive and exhaustive subsets.  
The dichotomies are these: (1) Things which are *contingent* and things which are noncontingent or *necessary*; (2) contingent things which are *states* and contingent things which are non-states or *contingent individuals*; (3) contingent individuals which are *boundaries* and contingent individuals which are non-boundaries or *contingent substances*; (4) necessary things which are states and necessary things which are not states but are, nevertheless, *entia per se*; and (5) those *entia per se* which are *abstracta* and that *ens per se* which is *necessary substance*." (p. 499)
16. Correia, Fabrice. 2005. *Existential Dependence and Cognate Notions*. Munich: Philosophia Verlag.  
Contents: Introduction 7; 1. Preamble 13; Introductory Break 35; 2. Simple Dependence: Presentation, and Rejection of Some Accounts 39; 3. Metaphysical Grounding 53; 4. Simple Dependence: The Foundational Approach 65; 5. Some Other Notions of Existential Dependence 89; 6. A Cognate Notion: Supervenience 131; Appendix 151; Bibliography 161; List of Figures 165; List of Symbols and Notations 167; List of Named Propositions, Conditions and Rules 169; Index 171.

"It is quite common nowadays to encounter in philosophical writings claims to the effect that certain entities depend for their existence upon certain other entities, that the former cannot exist without the latter. Thus, for instance, it is sometimes claimed that events depend for their existence upon their participants, sets upon their members, particularized properties and relations (tropes) upon their bearers, mental states and events upon physical states and events, boundaries upon the corresponding extended objects, holes upon their hosts.

The notion of existential dependence not only serves to formulate particular philosophical claims. It may also be used to help characterize general philosophical positions, and to define central philosophical concepts. For instance, idealism may be defined as the view according to which the external world depends for its existence upon epistemic subjects; mereological essentialism as the claim that genuine wholes depend for their existence upon their parts; the thesis of the essentiality of biological origins as the view according to which every organism is existentially dependent upon its biological origins. And according to a certain philosophical tradition, substances are defined as existentially independent entities of a certain sort." (p. 7)

(...)

"My plan is the following. In the Preamble, I introduce notions and principles that will be useful in the rest of this work. After a short break, chapter 2 introduces the simplest notion of existential dependence, presents some existing accounts of this notion and some objections to these accounts. In chapter 3 the crucial notion of grounding is introduced. In chapter 4, I then propose my own account of simple existential dependence, and show how it escapes the difficulties faced by its rivals. Chapter 5 deals with other forms of existential dependence—like generic dependence, disjunctive dependence and temporalized forms of existential dependence—and finally chapter 6 is about supervenience."

17. ———. 2008. "Ontological Dependence." *Philosophy Compass* no. 3:1013-1032. Abstract: "'Ontological dependence' is a term of philosophical jargon which stands for a rich family of properties and relations, often taken to be among the most fundamental ontological properties and relations. Notions of ontological dependence are usually thought of as 'carving reality at its ontological joints', and as marking certain forms of ontological 'non-self-sufficiency'. The use of notions of dependence goes back as far as Aristotle's characterization of substances, and these notions are still widely used to characterize other concepts and to formulate metaphysical claims. This paper first gives an overview of the varieties of these notions, and then discusses some of their main applications."
18. ———. 2021. "Ontological Dependence, Grounding and Modality." In *The Routledge Handbook of Modality*, edited by Bueno, Otávio and Shalkowski, Scott A., 100-113. New York: Routledge.
 

"Ontological dependence and grounding are two important items in the metaphysician's toolbox: both notions can be used to formulate important philosophical claims and to define other notions that play a central role in philosophical theorising. Philosophical inquiry about ontological dependence and (especially) grounding has been very lively over the past few years, making it difficult to write a short review article on any of them, let alone a short review article on both.

I try to reach a good compromise between a discussion of each notion taken separately and a discussion of how they relate to one another. I begin by introducing the notions and discussing a number of their connections with modality (Sections 9.1 and 9.2), starting with grounding for systematic reasons (some important concepts of ontological dependence are defined in terms of grounding). I then further the discussion of how the notions are connected to each other, by arguing against the view that (partial) grounding is equivalent to (the converse of) ontological dependence between facts (Section 9.3). Finally, I discuss their respective roles in the theory of fundamentality (Section 9.4)." (p. 100 a note omitted)

19. Costa, Damiano. 2019. "An Argument Against Aristotelian Universals." *Synthese* no. 198:4331-4338.  
 Abstract: "I provide an argument against the Aristotelian view of universals, according to which universals depend for their existence on their exemplifiers. The argument consists in a set of five jointly inconsistent assumptions. As such, the argument can be used to argue in favour of other conclusions, such as that exemplification is no relation or that plausible principles concerning ontological dependence or grounding do not hold."
20. Dumsday, Travis. 2016. "Non-Mereological Pluralistic Supersubstantivalism: An Alternative Perspective on the Matter–Spacetime Relationship." *Canadian Journal of Philosophy* no. 46:183-203.  
 Abstract: "In both the historical and contemporary literature on the metaphysics of space (and, more recently, spacetime), a core dispute is that between *relationism* and *substantivalism*. One version of the latter is *supersubstantivalism*, according to which space (or, again, spacetime) is the only kind of substance, such that what we think of as individual material objects (electrons, quarks, etc.) are actually just parts of spacetime which instantiate certain properties. If those parts are ontologically dependent on spacetime as a whole, then we arrive at an ontology with only a single genuinely independent substance, namely the entire spacetime manifold. *This is monist supersubstantivalism*. A view on which the parts of spacetime are ontologically prior to the whole has been called *pluralistic supersubstantivalism*. As currently formulated, supersubstantivalism (in either its monist or pluralistic forms) carries significant advantages and encounters major difficulties. I argue that some of the latter motivate an alternative formulation, *non-mereological pluralistic supersubstantivalism*, according to which spacetime is a real substance, but what we think of as material objects are also real substances, irreducible to and numerically distinct from that larger spacetime manifold and any of its parts. Yet, the underlying nature of those material objects is ultimately the same type as that of spacetime: at bottom, a particle is just a smaller quantity of spacetime embedded in or contained by or co-located with the larger whole that we would normally think of as 'spacetime,' capable both of genuine movement within/across the larger spacetime manifold and (at least in principle) independent existence from it."
21. Duncan, Michael, Miller, Kristie, and Norton, James. 2021. "Ditching determination and dependence: or, how to wear the crazy trousers." *Synthese* no. 198:395-418.  
 Abstract: "This paper defends Flatland—the view that there exist neither determination nor dependence relations, and that everything is therefore fundamental—from the objection from explanatory inefficacy. According to that objection, Flatland is unattractive because it is unable to explain either the appearance as of there being determination relations, or the appearance as of there being dependence relations. We show how the Flatlander can meet the first challenge by offering four strategies—reducing, eliminating, untangling and omnizing—which, jointly, explain the appearance as of determination relations where no such relations obtain. Since, plausibly, dependence relations just are asymmetric determination relations, we argue that once we come mistakenly to believe that there exist determination relations, the existence of other asymmetries (conceptual and temporal) explains why it appears that there are dependence relations."
22. Elpidorou, Andreas. 2018. "Introduction: The Character of Physicalism." *Topoi* no. 37:435-455.  
 Abstract: "Not many issues in philosophy can be said to match, let alone rival, physicalism's importance, persistent influence, and divisiveness. To a first approximation, physicalism holds that everything that exists in our world is physical."

An acceptance of physicalism commits thus one to a monistic worldview. Despite how variegated existing entities or properties might appear to be, everything that exists in our world is, according to physicalism, the same: namely, physical. Indeed, it is widely thought that physicalism demands not only that the non-physical (the chemical, the biological, the economic, the social, the mental, etc.) metaphysically depends on the physical but also that the non-physical is nothing over and above the physical. But what type of metaphysical dependence vindicates physicalism?

The aim of this editorial introduction is twofold. First, Sects. 1–8 offer a critical introduction to the metaphysical character of physicalism. In those sections, I present and evaluate different ways in which proponents of physicalism have made explicit the metaphysical dependence that is said to hold between the non-physical and the physical. Some of these accounts are found to be problematic; others are shown to be somewhat more promising. In the end, some important lessons are drawn and different options for physicalists are presented. Second, in Sect. 9, the six papers that comprise the special issue are introduced and summarized. Each contribution to the special is, in different ways, concerned with explicating the character of physicalism. New ways of formulating physicalism are assessed; old ways are defended; and the distinctions between physicalism naturalism, and dualism are reconsidered. The special issue is neither the first nor the last word on the topic of the character physicalism. Nonetheless, it offers both an updated appraisal of our current understanding of physicalism and concrete proposals for how to move forward."

23. Erices, Gonzalo Nuñez. 2019. "Boundaries and Things. A Metaphysical Study of the Brentano-Chisholm Theory." *Kriterion: Journal of Philosophy* no. 33:15-48. Abstract: "The fact that boundaries are ontologically dependent entities is agreed by Franz Brentano and Roderick Chisholm. This article studies both authors as a single metaphysical account about boundaries. The Brentano-Chisholm theory understands that boundaries and the objects to which they belong hold a mutual relationship of ontological dependence: the existence of a boundary depends upon a continuum of higher spatial dimensionality, but also is a *conditio sine qua non* for the existence of a continuum. Although the view that ordinary material objects and their boundaries (or surfaces) ontologically depend on each other is correct, it does not grasp their asymmetric relationship: while the existence of a surface rigidly depends upon the existence of the very object it belongs to, the existence of a physical object generically depends upon having some surface. In modal terms, both are two kinds of *de re* ontological dependence that this article tries to distinguish."
24. Esfeld, Michael, and Lam, Vincent. 2011. "Ontic Structural Realism as a Metaphysics of Objects." In *Scientific Structuralism*, edited by Bokulich, Peter and Bokulich, Alisa, 143-159. Dordrecht: Springer.  
 "In a first approach, ontic structural realism (OSR) is a realism towards physical structures in the sense of networks of concrete physical relations, without these relations being dependent on fundamental physical objects that possess an intrinsic identity as their *relata*. In that vein, OSR has been developed in recent years as a metaphysics of contemporary fundamental physics, mainly non-relativistic quantum mechanics (QM), relativistic quantum field theory (QFT) and the general theory of relativity (GTR)." (p. 143)  
 (...)  
 "The issue of the relationship between objects and relations within OSR has mainly been addressed in the literature in terms of ontological primacy (Stachel 2006; Ladyman and Ross 2007, Section 3.4; French 2010)." (p. 145)  
 (...)  
 "In sum, current fundamental physics does not make an intrinsic identity of the fundamental physical objects, whatever they may be, available. The relations or structures acknowledged in current fundamental physics cannot provide for an identity that distinguishes each object from the other ones either, since they yield no

more than what is known as weak discernibility. However, weak discernibility does not contribute to vindicating the idea of relations enjoying ontological primacy over relata in that objects somehow emerge out of relations (4), and the other two versions of OSR – symmetric ontological dependence between objects and relations (3), eliminativism with respect to objects (5) – are not convincing either." (p. 150)

#### References

French, Steven (2010): "The interdependence of structure, objects and dependence". Forthcoming in *Synthese*. [vol, 175, pp. 89-109]

Ladyman, James & Ross, Don with Spurrett, David & Collier, John (2007): *Everything must go. Metaphysics naturalised*. Oxford: Oxford University Press.

Stachel, John (2006): "Structure, individuality, and quantum gravity". In: D. Rickles, S. French & J. Saatsi (eds.): *The structural foundations of quantum gravity*. Oxford: Oxford University Press. Pp. 53–82.

25. Ferguson, Thomas Macaulay. 2016. "Remarks on Ontological Dependence in Set Theory." *Australasian Journal of Logic* no. 13:41-57.  
 Abstract: "In a recent paper, John Wigglesworth explicates the notion of a set's *being grounded in or ontologically depending on* its members by the modal statement that in any world (possible or impossible), that a set exists in that world entails that its members exist as well. After suggesting that variable-domain S5 captures an appropriate account of metaphysical necessity, Wigglesworth purports to prove that in any set theory satisfying the axiom Extensionality this condition holds, that is, that sets ontologically depend on their members with respect to extraordinarily weak notions of set. This paper diagnoses a number of problems concerning Wigglesworth's formal argument. For one, we will show that Wigglesworth's argument is invalid as it requires an appeal to hidden, extralogical theses concerning rigid designation and the persistence of sets across possible worlds. Having demonstrated the indispensability of these principles to Wigglesworth's argument, we will then show that even granted the enthymematic premises, the argument only proves the ontological dependence of *singletons* on their members and does not extend to sets in general. Finally, we will consider strengthenings of Wigglesworth's reasoning and suggest that even the weakest generalization will bear undesirable consequences."  
 References  
 Wigglesworth, J. Set-theoretic dependence. *Australasian Journal of Logic* 12, 3 (2015), 150-176.
26. Ferrier, Edward. 2019. "Against the Iterative Conception of Set." *Philosophical Studies* no. 176:2681-2703.  
 Abstract: "According to the iterative conception, each set is formed out of sets that are, in some sense, prior to it. Because priority plays an essential role in explanations of why contradiction-inducing sets, such as the universal set, do not exist, the success of these explanations depends on our ability to make sense of the relevant priority relation. I argue that attempts to do this have fallen short: understanding priority in a straightforwardly constructivist sense threatens the coherence of the empty set and raises serious epistemological concerns; but the leading realist interpretations—ontological and modal interpretations of priority—are deeply problematic as well. I conclude that the purported explanatory virtues of the iterative conception are, at present, unfounded."
27. Fine, Kit. 1995. "Ontological Dependence." *Proceedings of the Aristotelian Society* no. 95:269-290.  
 "There appears to be a distinctively ontological sense in which one thing may be said to depend upon another. What the one thing is will depend upon the other thing, upon what it is. It is in this sense that one is tempted to say that a set depends upon its members or that a particularized feature, such as a smile, upon the particular in which it is found. For what the set is will depend upon its members; and what the feature is will depend upon the particular that instantiates it. (1)

Granted that there is an intelligible notion of ontological dependence, it would appear to be of great importance to the study of metaphysics. Metaphysics has two main areas of concern: one is with the nature of things, with *what* they are; and the other is with the existence of things, with *whether* they are. Considerations of dependence are relevant to both. For central to the question of the nature of any item is the determination of what it depends upon; and if something is taken to exist, then so must any thing upon which it depends. Indeed, it has often been maintained that it is only those things which do not depend upon anything else that can properly be said to exist at all." (p. 269)

(...)

"But how is the notion of dependence itself to be understood? The idea of what something is, its *identity* or *being*, is notoriously obscure; and the idea of the being of one thing *depending* upon that of another is doubly obscure. A natural suggestion at this point is to take the being of something simply to be its existence. Thus in saying that a set depends upon its members, or a feature upon its instantiator, we are taking the existence of the one to depend upon that of the other. Call this the *existential* construal of dependence. Another natural suggestion is to take the dependence between the beings of the two items, as opposed to the items themselves, to be modal in character. The being of the one will depend upon that of the other in the sense that it is necessary that if the one item has its 'being' then so does the other. Call this the *modal* construal of dependence." (p. 270)

(1) This paper derives from an earlier paper 'Dependent Objects', that was written in 1982 but remained unpublished. Some of the issues raised are discussed at greater length in Fine [1995b]; and no attempt is here made to settle the methodological, as opposed to the conceptual, issues. I should like to thank Ruth Chang and the members of the Wednesday Group at Oxford for helpful comments.

References

Fine K. [1995b] 'Senses of Essence', to appear in Festschrift for Ruth Barcan Marcus. [Walter Sinnott-Armstrong (ed.), *Modality, Morality and Belief. Essays in Honor of Ruth Barcan Marcus*, Cambridge: Cambridge University Press, 1995, pp. 53-73.]

28. ———. 2020. "Comments on Jessica Wilson's "Essence and Dependence". In *Metaphysics, Meaning, and Modality: Themes from Kit Fine*, edited by Dumitru, Mircea, 471-475. New York: Oxford University Press.

"Jessica Wilson's paper is a wonderfully sympathetic account of my general approach to metaphysics; and there is a special satisfaction to be had in being, not merely understood, but understood so well.

(...)

But her paper is not all praise. For she wishes to criticize my account of ontological dependence in terms of essence - perhaps as part of a larger critique of the use of a general notion of dependence in metaphysics (§ 4). In a number of papers, I have suggested that an object x will depend upon an object y if and only if y figures in the essence of x, i.e., if and only if, in giving an account of what x is, reference must be made

y. But she thinks that this equivalence may fail in the right to left direction, that an object y may figure in the essence of x without x depending upon y (she may be perfectly happy with the left to right direction, though this is not something that she discusses)." (p. 471)

29. Fontaine, Matthieu, and Rahman, Shahid. 2010. "Fiction, Creation and Fictionality: An Overview." *Methodos* no. 10:1-75.

Abstract: "The philosophical reflection on non-existence is an issue that has been tackled at the very start of philosophy and constitutes since the publication in 1905 of Russell's "On Denoting" one of the most thorny and heated debates in analytic philosophy. However the fierce debates on the semantics of proper names and definite descriptions which took off after the publication of Strawson's 'On Referring' in 1950 did not trigger a systematic study of the semantics of fiction. In fact, the systematic development of a link that articulates the approaches to fiction

of logic; philosophy and literature had to wait until the work of John Woods, who published in 1974 the book *Logic of Fiction: A Philosophical Sounding of Deviant Logic*. One of the most exciting challenges of Woods' book relates to the interaction between the internalist or inside-the-story (mainly pragmatist) and externalist or outside-the-story (mainly semantic) points of view. For that purpose Woods formulated as first a fictionality operator to be read as "according to the story ..." in relation to the logical scope of which issues on internalism and externalism could be studied. The discussions on fiction that followed Woods' book not only seem not to fade away but even give rise to new and vigorous research impulses. Relevant fact for our paper is that in the phenomenological tradition too, the study of fiction has a central role to play. Indeed, one of the most controversial issues in intentionality is the problem of the existence-independence; i.e. the purported fact that intentional acts need not be directed at any existent object. Influenced by the work of the prominent student of Husserl, Roman Ingarden (1893-1970), Amie Thomasson develops the phenomenological concept of ontological dependence in order to explain how we can perform inter- and transfictional-reference - for example in the context of literary interpretation. The main claim of this paper is that a bi-dimensional multimodal reconstruction of Thomasson's-Ingarden's theory on fictional characters which takes seriously the fact that fictions are creations opens the door to the articulation between the internalist and the externalist approaches. We will motivate some changes on the artifactual approach – including an appropriate semantics for the fictionality operator that, we hope, will awaken the interest of theoreticians of literature. The paper could be also seen as an overview of how different concepts of intentionality might yield different formal semantics for fictionality. We will provide a dialogical framework that is a modal extension of a certain proof system developed by Matthieu Fontaine and Juan Redmond. The dialogical framework develops the inferential counterpart to the the bidimensional semantics introduced by Rahman and Tulenheimo in a recent paper."

#### References

Rahman, S. and Tulenheimo, T., 2009a: "From games to dialogues and back: towards a general frame for validity", in O. Majer, A. Pietarinen, and T. Tulenheimo (eds.), *Games: Unifying Logic, Language, and Philosophy*, Logic, Epistemology and the Unity of Science 15, Dordrecht: Springer, pp. 153–208.

30. ———. 2014. "Towards a Semantics for the Artifactual Theory of Fiction and Beyond." *Synthese* no. 191:499-516.  
 Abstract: "In her book *Fiction and Metaphysics* (1999) Amie Thomasson, influenced by the work of Roman Ingarden, develops a phenomenological approach to fictional entities in order to explain how non-fictional entities can be referred to intrafictionally and transfictionally, for example in the context of literary interpretation. As our starting point we take Thomasson's realist theory of literary fictional objects, according to which such objects actually exist, albeit as abstract and artifactual entities. Thomasson's approach relies heavily on the notion of ontological dependence, but its precise semantics has not yet been developed. Moreover, the modal approach to the notion of ontological dependence underlying the Artifactual Theory has recently been contested by several scholars. The main aims of this paper are (i) to develop a semantic approach to the notion of ontological dependence in the context of the Artifactual Theory of fiction, and in so doing bridge a number of philosophical and logical gaps; (ii) to generalize Thomasson's categorial theory of ontological dependence by reconstructing ontological categories of entities purely in terms of different structures of ontological dependence, rather than in terms of the basic kinds of entities the categorial entities depend on."
31. French, Steven. 2010. "The interdependence of structure, objects and dependence." *Synthese* no. 175:89-109.  
 Abstract: "According to 'Ontic Structural Realism' (OSR), physical objects—*qua* metaphysical entities—should be reconceptualised, or, more strongly, eliminated in

favour of the relevant structures. In this paper I shall attempt to articulate the relationship between these putative objects and structures in terms of certain accounts of metaphysical dependence currently available. This will allow me to articulate the differences between the different forms of OSR and to argue in favour of the 'eliminativist' version. A useful context is provided by Floridi's account of the relationship between 'ontic' and 'epistemic' structural realisms and I shall conclude with some brief remarks on possible extensions of OSR into other scientific domains."

#### References

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32. Galton, Antony. 2014. "On Generically Dependent Entities." *Applied Ontology* no. 9:129-153.  
 Abstract: "An entity  $x$  is said to be generically dependent on a type  $F$  if  $x$  cannot exist without at least one entity of type  $F$  existing. In this paper several varieties of generic dependence are distinguished, differing in the nature of the relationship between an entity and the instances of a type on which it generically depends, and in the light of this criteria of identity for generically dependent entities are investigated. These considerations are then illustrated in detail in a series of three case studies, covering shapes, linguistic entities such as letters, words and sentences, and collectives. Each case study examines how far the entities involved have robust identity criteria, and to the extent that they do not it is questioned whether they can be regarded as bona fide examples of generic dependent entities. Finally, in the light of this, a number of possible accounts that may be given of the ontological status of such entities are considered."
33. Glick, David, Darby, George, and Marmodoro, Anna, eds. 2020. *The Foundation of Reality: Fundamentality, Space, and Time*. Oxford: Oxford University Press.  
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34. Gorman, Michael. 1993. *Ontological Priority*.  
 Unpublished Ph.D thesis, State University of New York at Buffalo, available at UMI Dissertation Express, Pub ID 9404812.  
 Abstract: "  
 Authors  
 Michael Gorman  
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 Abstract  
 This dissertation is an investigation of ontological priority. The Introduction argues that although philosophers have often been concerned with the things that are

ontologically prior, they have seldom addressed the question of what ontological priority is. ;Part One gives a detailed analysis of what ontological priority is. Chapter 1 notes that there are two competing theories available: according to the first, ontological priority is a dependence relation; according to the second, it is a degrees-of-being relation. Since the two views are in themselves irreconcilable and since there are no good grounds for choosing between them, it is better to find a "higher" theory that encompasses both of them. Chapter 2 lays the groundwork for the development of this "higher" theory by examining the Scotistic notion of "essential order", a notion that includes the two relations that have been called 'ontological priority' as noted in Chapter 1. Chapter 3 adapts Scotus's understanding of essential order to formulate a definition of ontological priority. The definition does not define just one relation; rather, it gives membership criteria for an entire class of "ontological priority relations". ;Part Two examines some of the members of the class of ontological priority relations. Chapter 4 examines dependence and concludes three things: first, that the received understanding of dependence is incorrect; second, that dependence properly understood is an ontological priority relation; third, that the relation that is usually thought to be dependence is also an ontological priority relation. Chapter 5 examines degrees-of-being. Since the question of what degrees-of-being is is too complicated to deal with in the context of the dissertation, the chapter examines several theories and shows that degrees-of-being is an ontological priority relation according to any of the theories. ;The Conclusion shows some relations among the three ontological priority relations discussed in Part Two. It also shows briefly how the concept of ontological priority relations can be used to talk about the orderings of the universe. Finally, it points the way to further investigation."

35. ———. 2006. "Independence and Substance." *International Philosophical Quarterly* no. 46:147-159.  
Abstract: "The paper takes up a traditional view that has also been a part of some recent analytic metaphysics, namely, the view that substance is to be understood in terms of independence. Taking as my point of departure some recent remarks by Kit Fine, I propose reviving the Aristotelian-scholastic idea that the sense in which substances are independent is that they are non-inherent, and I do so by developing a broad notion of inherence that is more usable in the context of contemporary analytic metaphysics than the traditional notion is. I end by showing how non-inherence, while necessary for being a substance, cannot be taken as sufficient without some qualifying remarks."
36. ———. 2006. "Substance and Identity-Dependence." *Philosophical Papers* no. 35:103-118.  
Abstract: "The notion of substance has become rather important in recent metaphysical discussions, but there is no consensus on how it is to be understood. In this paper discuss the idea that substance can be defined in terms of identity-dependence. Giving special attention to the work of E.J. Lowe, who is the main advocate of this position, I clarify how the identity-dependence approach ought to be understood and defend it against an objection having to do with dependence on God. then bring forward difficulties having to do with mereological essentialism and necessity of origins. These difficulties are much more powerful, but it is possible to revise the identity-dependence approach in a way that avoids them."
37. ———. 2012. "On substantial independence: a reply to Patrick Toner." *Philosophical Studies* no. 159:293-297.  
Abstract: "Patrick Toner has recently criticized accounts of substance provided by Kit Fine, E. J. Lowe, and the author, accounts which say (to a first approximation) that substances cannot depend on things other than their own parts. On Toner's analysis, the inclusion of this "parts exception" results in a disjunctive definition of substance rather than a unified account. In this paper (speaking only for myself, but in a way that would, I believe, support the other authors that Toner discusses), I first make clear what Toner's criticism is, and then I respond to it. Including the "parts

- exception" is not the adding of a second condition but instead the creation of a new single condition. Since it is not the adding of a condition, the result is not disjunctive. Therefore, the objection fails."
38. Grimes, Thomas R. 1988. "The Existential Basis of Propositions, States of Affairs, and Properties." *Grazer Philosophische Studien* no. 31:151-163.  
 "Existentialism, in its more general form, is the view that such things as propositions, states of affairs, and properties are ontologically dependent upon the objects they are directly about. On this view, if Socrates had never existed there would not have been the proposition Socrates is wise, the state of affairs Socrates' being wise, nor the property being such that Socrates is wise.  
 Existentialism strikes me as a plausible doctrine. Alvin Plantinga, however, is of a differing opinion and has sought to fill the existential vacuum by arguing that it is possible that a singular proposition exists even if the contingent individual it involves does not.(2) In defense of existentialism, I will attempt to show that Plantinga's efforts are not successful, and then give an argument in favor of the existentialist position." (pp. 151-162, a note omitted)  
 (2) See "De Essentia", *Grazer Philosophische Studien*, 7 (1979), and also "On Existentialism", *Philosophical Studies*, 44 (1983).
39. Hiller, Avram. 2013. "Object-Dependence." *Essays in Philosophy* no. 14:33-55.  
 Abstract: "There has been much work on ontological dependence in recent literature. However, relatively little of it has been dedicated to the ways in which individual physical objects may depend on other distinct, non-overlapping objects. This paper gives several examples of such *object-dependence* and distinguishes between different types of it. The paper also introduces and refines the notion of an *n-tet*. *N-tets* (typically) occur when there are object-dependence relations between *n* objects. I claim that the identity (or, rather, what I call the *n-identity*) conditions for *n-tets* are not grounded in the individual identity conditions of each of the *n* objects, but instead are metaphysically basic. The paper then briefly discusses some ramifications of accepting objectdependence (and *n-tets*) on the philosophy of biology, ethics, and logic."
40. Hinckfuss, Ian. 1976. "Necessary Existential Dependence." *Australasian Journal of Philosophy* no. 54:123-132.  
 "The notion that one sort of thing depends in some logical way for its existence on the existence of another sort of thing is a common feature of ontological discussions in every field of philosophy. The notion is of importance, for it is often thought that the tracing of these necessary ontological dependencies gives us greater understanding as to the nature of the entities involved. Thus such questions may arise as: In what way, if at all, do such abstract entities such as sentences, propositions and languages depend for their existence on the existence of concrete entities--such as thinking and communicating people---and the linguistic tokens which they manufacture?  
 In what way, if at all, do the existence of space and time depend on the existence of material objects?  
 (...)  
 In this paper, I shall try to render plausible the contention that there is no coherent notion of existential dependence, where this dependence is construed as any sort of logical relationship." (p. 123)
41. Hoeltje, Miguel. 2013. "Introduction." In *Varieties of Dependence: Ontological Dependence, Grounding, Supervenience, Response-Dependence*, edited by Hoeltje, Miguel, Schnieder, Benjamin and Steinberg, Alex, 9-28. Munich: Philosophia Verlag.  
 "This collection focusses on four notions that have been used to formulate metaphysical claims about the structure of the world: *ontological dependence*, *grounding*, *supervenience*, and *response-dependence*. The collection aims at both providing a useful guide to the novice reader as well as making a contribution to the current debates involving these notions.

- To this end, contributions of two different sorts are included. For each of the four notions, the collection contains a survey paper introducing the pertinent concepts and distinctions, and summarizing the state of the art of the debate. A fifth survey paper, on Aristotle's notion of ontological dependence and its relevance to the notion of a substance, provides some of the historical background. These survey papers thus provide the theoretical basis for the research papers that make original contributions to the current debates." (p. 9)
42. Hoeltje, Miguel, Schnieder, Benjamin, and Steinberg, Alex, eds. 2013. *Varieties of Dependence: Ontological Dependence, Grounding, Supervenience, Response-Dependence*. Munich: Philosophia Verlag.  
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Name Index 419; Subject Index 423; List of Contributors 429-431.
43. Irmak, Nurbay. 2013. "The Privilege of the Physical and the Status of Ontological Debates." *Philosophical Studies* no. 166:1-8.  
Abstract: "Theodore Sider in his latest book [*Writing the book of the world*. Oxford: Oxford University Press 2011] provides a defense of the substantivity of the first-order ontological debates against recent deflationary attacks. He articulates and defends several realist theses: (a) nature has an objective structure, (b) there is an objectively privileged language to describe the structure, and (c) ontological debates are substantive. Sider's defense of metaontological realism, (c), crucially depends on his realism about fundamental languages, (b). I argue that (b) is wrong. As a result, Sider's metaontological realism fails to establish the substantivity of certain ontological disputes. Nonetheless, I will argue denying metaontological realism does not require giving up on the realism about structure, (a), that most of us would like to preserve: namely the idea that there are objective similarities and differences in the world that we try to wrap our minds around."
44. Jacinto, Bruno. 2019. "Serious Actualism and Higher-Order Predication." *Journal of Philosophical Logic* no. 48:471-499.  
Abstract: "*Serious actualism* is the prima facie plausible thesis that things couldn't have been related while being nothing. The thesis plays an important role in a number of arguments in metaphysics, e.g., in Plantinga's argument (Plantinga *Philosophical Studies*, 44, 1–20 1983) for the claim that propositions do not ontologically depend on the things that they are about and in Williamson's argument (Williamson 2002) for the claim that he, Williamson, is necessarily something. Salmon (*Philosophical Perspectives*, 1, 49–108 1987) has put forward that which is, arguably, the most pressing challenge to serious actualists. Salmon's objection is based on a scenario intended to elicit the judgment that merely possible entities may nonetheless be actually referred to, and so may actually have properties. It is shown that predicativism, the thesis that names are true of their bearers, provides the resources for replying to Salmon's objection. In addition, an argument for serious actualism based on Stephanou (*Philosophical Review*, 116(2), 219–250 2007) is offered. Finally, it is shown that once serious

actualism is conjoined with some minimal assumptions, it implies property necessitism, the thesis that necessarily all properties are necessarily something, as well as a strong comprehension principle for higher-order modal logic according to which

for every condition there necessarily is the property of being a thing satisfying that condition."

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Salmon, N. (1987). Existence. *Philosophical Perspectives*, 1, 49–108.

Stephanou, Y. (2007). Serious actualism. *Philosophical Review*, 116(2), 219–250.

Williamson, T. (2013). *Modal logic as metaphysics*. Oxford: Oxford University Press.

45. Jansson, Lina. 2017. "Explanatory Asymmetries, Ground, and Ontological Dependence." *Erkenntnis* no. 82:17-44.  
 Abstract: "The notions of ground and ontological dependence have made a prominent resurgence in much of contemporary metaphysics. However, objections have been raised. On the one hand, objections have been raised to the need for distinctively *metaphysical* notions of ground and ontological dependence. On the other, objections have been raised to the usefulness of adding ground and ontological dependence to the existing store of other metaphysical notions. Even the logical properties of ground and ontological dependence are under debate. In this article, I focus on how to account for the judgements of non-symmetry in several of the cases that motivate the introduction of notions like ground and ontological dependence. By focusing on the notion of explanation relative to a theory, I conclude that we do not need to postulate a distinctively *asymmetric* metaphysical notion in order to account for these judgements."
46. Jenkins, C. S. 2011. "Is Metaphysical Dependence Irreflexive?" *The Monist* no. 94:267-276.  
 "It is very commonly asserted that metaphysical dependence or grounding is an irreflexive relation: that is to say, it *never holds between an item and itself*." (p. 267)  
 (...)  
 "Maybe the irreflexivity assumption doesn't require argument?  
 Perhaps it is reasonable just to assume it in the absence of arguments to the contrary. There are (at least) three possible ways to back up this suggestion. One could take the irreflexivity claim to be:  
 1. stipulative,  
 2. intuitive, or  
 3. too basic to require justification (at least in the relevant contexts).  
 If it is taken to be stipulative (i.e. if one takes it to be true by definition that dependence is irreflexive), one runs the risk of discussing something that isn't what everyone else meant by 'dependence', or of discussing something that is less interesting than schmeppendence (a nearby non-irreflexive relation). One can mean whatever one likes by 'dependence', of course, but these risks are to be treated with respect by any serious philosopher.  
 If one merely takes irreflexivity to be intuitive, however, one is open to the possibility that its intuitiveness might be explained away as being due to quasi-irreflexivity.  
 What about taking irreflexivity to be too basic to require justification in the relevant contexts?8 After all, one must start somewhere if one is to make any progress; one can't argue for all one's assumptions. But one can assert that dependence appears to be irreflexive, or exhibits some features suggestive of irreflexivity, almost as quickly as one can assert that it is irreflexive.  
 Now that the irreflexivity assumption has been questioned and one obvious motivation for it undermined, it is not good philosophical practice to sweep the challenge back under the carpet." (p. 275, notes omitted)

47. Johansson, Ingvar. 2004. *Ontological Investigations: An Inquiry into the Categories of Nature, Man and Society*. Frankfurt: Ontos Verlag.  
Second edition. First edition London: Routledge 1989.  
"Foreword to the second edition: After fifteen years, a second edition of *Ontological Investigations* will now appear. It contains three appendices: First, a summary of the conclusions of the book in aphoristic form; second, a piece on universals which provides a more elaborate defence of my realist point of departure; and, third, an appendix on ontology in information science, a topic which is also addressed in this Foreword." (p. VII)  
Chapter 9: "As I indicated at the beginning of chapter 8, I do not regard internal relations as a fundamental category but a specific kind of the truly fundamental category 'existential dependence'. The theory of this category is, I think, first worked out by Brentano and the young Edmund Husserl. But it has not so far, unlike external and internal relations, become common property within philosophy. This is the reason why I wanted to discuss internal relations before existential dependence. I think the move to the latter concept is so important that I shall make some further introductory remarks before presenting the category of existential dependence." (p. 124)
48. Kanzian, Christian. 2015. "Existential Dependence and other Formal Relations." In *God, Truth, and other Enigmas*, edited by Szatkowski, Mirosław, 183-196. Berlin: de Gruyter.  
"As the title of my paper indicates, I will not restrict myself to general considerations concerning formal relations. In my second section I aim to introduce *dependence*, ontological dependence, as another such formal relation. In this section I will spell out what ontological dependence has in common with the other formal relations, and how we can define it amongst the other genera of formal relations. Having, I hope, sufficiently motivated the argument I am making, I next turn to *existential dependence* in the third section, treating it as an own kind or species of ontological dependence. Continuing the method I employed in section two, I will point out aspects which existential dependence has in common with other species of dependence, and, then, those of its characteristics that are not shared by the other formal relations within the genus of ontological dependence. In the final two sections of my paper I will present a brief overview of certain possible applications of this theory of formal relations, focusing on existential dependence. With such a theory in hand, we can make a certain specific categorial frame more plausible (section 4). I also believe that formal relations like existential dependence, perhaps, can help us understand central topics in philosophical theology, e.g. of God's identity, and of creation. Concerning the latter I make some fragmentary suggestions (in section 5)." (pp. 183-184)
49. Kim, Jaegwon. 1994. "Explanatory Knowledge and Metaphysical Dependence." *Philosophical Issues* no. 5:51-69.  
"There is a famous remark Aristotle made about knowledge: "Men do not think they know a thing unless they have grasped the 'why' of it" (*Physics* II, ch. 3; see also *Metaphysics* V, ch. 2). This remark is often quoted by writers on scientific explanation to underline the importance of explanation to scientific knowledge, and why, as philosophers, we should concern ourselves with understanding what explanation is -that is, to show that "analyzing" scientific explanation, or building a "model" of explanation, is a reputable philosophical enterprise." (p. 51)  
(...)  
"My main proposal, then, is this: *explanations track dependence relations*. The relation that "grounds" the relation between an explanans, *G*, and its explanatory conclusion, *E*, is that of dependence; namely, *G* is an explanans of *E* just in case *e*, the event being explained, depends on *g*, the event invoked as explaining it. On this proposal, therefore, the simplifying effect of an explanation is seen both in our belief system and in the world: by showing an event to be dependent on another,

- the explanation reduces the number of independent events in the world, and also the number of independent assumptions we need to accept about the world." (p. 68)
50. Kolb, David. 1975. "Ontological priorities: A critique of the announced goals of "descriptive metaphysics". *Metaphilosophy* no. 6:238-258.  
 "Is there a *the* metaphysics of ordinary language? In recent decades philosophers have attempted to obtain "ontological" results by analyzing the language we ordinarily speak, its semantics, and the conditions that make it possible. Peter Strawson's "descriptive metaphysics" is perhaps the most famous of these attempts; I will try to show in this essay that it does not fulfil its stated purpose.  
 After a brief review of some of the main theses of *Individuals*, I discuss an ambiguity in Strawson's notion of "ontological priority". This ambiguity seriously weakens Strawson's arguments and raises the question whether "descriptive metaphysics" is metaphysics at all. I then try to outline his project as a whole and show why it might lead to this ambiguity. This involves examining what Strawson means by "other conceptual schemes".  
 I close with a brief look at similar issues in Strawson's later book, *The Bounds of Sense*.  
 This essay restricts itself to one author, but it is part of a wider attempt to show that analysis of (ordinary) language yields no necessary metaphysical results except at Kant's price: the elimination of metaphysics by some sort of transcendental philosophy." (p. 238)
51. Koons, Robert C., and Pickavance, Timothy H. 2017. *The Atlas of Reality: A Comprehensive Guide to Metaphysics*. Malden: Wiley Blackwell.  
 Chapter 3: *Grounding, Ontological Dependence, and Fundamentality*, pp. 47-73.  
 "Fine (2012a) distinguishes between grounding and ontological dependence. Grounding is an explanatory relation between facts. Ontological dependence is a relation between entities or things: x is dependent on y iff y is contained in the essence of x."  
 (...)  
 "So, we might distinguish between the *quiddity* of x (x's species, a nature or what-it-is-to-be x that is shared by things with the same form), and the *haecceity* of x (the thisness of x, what it is to be x in particular). Quiddities are shareable; haecceities are not. If so, we should distinguish between two different kinds of ontological dependence: *quidditistic* ontological dependence ('q-dependence') and *haecceitistic* ontological dependence ('hdependence').  
 Socrates is q-dependent on his animality and his rationality, and on his soul and body, but not on his parents, while he might be h-dependent on his parents and on the circumstances of his conception, if we assume that these particular parents and the particular event of his conception are in some sense essential to Socrates' particular individuality or identity. In fact, many metaphysicians (following Kripke 1980) subscribe to what is called origins essentialism, meaning that a thing's particular origin is essential to its individual identity (i.e., part of its haecceity). So, if we believe in origins essentialism, particular events (like conceptions) might be included in the haecceities of particular things, but not in their quiddities (although the property of having some conception-event or other might be included in the quiddity)." (P. 58)  
 References  
 Fine, K. (2012a), Guide to Ground, in F. Correia and Benjamin Schnieder eds., *Metaphysical Grounding: Understanding the Structure of Reality*, Cambridge: Cambridge University Press.
52. Koslicki, Kathrin. 2012. "Essence, Necessity, and Explanation." In *Contemporary Aristotelian Metaphysics*, edited by Tahko, Tuomas E., 187-206. Cambridge: Cambridge University Press.  
 £In Section 12.2 of this chapter, I discuss Fine's way of drawing the distinction between what is part of the essence of an object and what merely follows from the essence of an object. Fine's approach to essence and modality has the advantage

- over the traditional approach to *de re* modality that it is set up to reflect the sensitivity of essentialist truths towards their grounds, viz., the identity of those objects in virtue of which these claims are true. But Fine's approach, as far as I can see, does not settle all the questions we would like to have answered concerning the derivation of propositions stating necessary (but non-essential) features of objects (e.g., the triangle's being three-sided) from propositions stating their essential features (e.g., the triangle's being three-angled), since the relevant notion of consequence that is needed for this purpose cannot be merely that of logical entailment." (p. 189)
53. ———. 2012. "Varieties of Ontological Dependence." In *Metaphysical Grounding: Understanding the Structure of Reality* edited by Correia, Fabrice and Schnieder, Benjamin, 186-213. Cambridge: Cambridge University Press.  
"Surprisingly, despite the central role dependence has played in philosophy since its very inception, this relation has only recently begun to receive the kind of attention it deserves from contemporary metaphysicians. In this chapter, I would like to contribute to the recent surge of interest in this subject by helping to develop a better grasp of the notion of ontological dependence. In doing so, I am not interested primarily in defending particular positions in first-order metaphysics, e.g., trope theory or Aristotelianism about universals. Rather, the focus of this current project is to become clearer about the kinds of dependence relations to which philosophers who assert or deny these positions in first-order metaphysics appeal. I take this project to be a crucial component of defending a realist position in metaphysics, according to which substantive disagreements in ontology are possible." (p 187, a note omitted)
54. ———. 2013. "Ontological Dependence: An Opinionated Survey." In *Varieties of Dependence: Ontological Dependence, Grounding, Supervenience, Response-Dependence* edited by Schnieder, Benjamin, Hoeltje, Miguel and Steinberg, Alex, 31-64. Munich: Philosophia Verlag.  
"The purpose of this essay is to provide an opinionated survey of some recent developments in the literature on ontological dependence.(1) Ontological dependence is typically taken to be a relation whose relata are entities."  
(...)  
"Conclusion: In this essay, I have considered various prominent construals of ontological dependence in the literature: modal vs. non-modal; existential vs. non-existential; as well as rigid vs. generic construals. And while there is of course nothing wrong in principle with defining whatever technical concept one wishes, the question arises, in the face of this plethora of relations that go under the name of 'ontological dependence', what explanatory tasks these notions are designed to accomplish and how well they in fact meet the desiderata that are set for them. I have identified three potential measures of success by means of which particular accounts of ontological dependence may be evaluated: (i) how well they do in classifying certain paradigmatic cases of ontological dependence in a particular desired way; (ii) whether they allow for the formulation of a plausible independence criterion of substancehood; and (iii) whether they make room for the possibility of substantive non-existential disagreements in ontology over questions of fundamentality. Relative to these three goals, we have seen that modal and existential construals of ontological dependence are open to persuasive counterexamples, while essentialist accounts seem to perform more promisingly. Still, various questions remain to be addressed by essentialist accounts as well: in particular, (i) how to handle the essentiality of origins (if it is in fact part of the essence of certain sorts of entities to have originated from whatever they in fact originated from); (ii) whether and how hylomorphic compounds can be assigned substance status; and (iii) how a distinction may be drawn between what is taken as primitive by a particular theory or conceptual system (e.g., the number 0 or the empty set) and what is genuinely ontologically fundamental. Thus, as is to be expected, more work still lies ahead for those who are sympathetic to essentialist accounts of ontological dependence." (pp. 60-61, a note omitted)

- (1) For other useful surveys, see also Correia 2008 and Lowe 2005.  
 Correia F. 2008: 'Ontological Dependence'. *Philosophy Compass* 3, pp. 1-20.  
 Lowe E. J. 2005: 'Ontological Dependence'. In Zalta, E. N. (ed.): *Stanford Encyclopedia of Philosophy*.
55. ———. 2013. "Substance, Independence and Unity." In *Aristotle on Method and Metaphysics*, edited by Feser, Edward, 169-195. London: Palgrave Macmillan.  
 "Conclusion: In this chapter, I considered particular attempts by E. J. Lowe and Michael Gorman at providing an independence criterion of substancehood and argued that the stipulative exclusion of non-particulars and proper parts (or constituents) from such accounts raises difficult issues for their proponents. The results of the present discussion seem to indicate that, at least for the case of composite entities, a unity criterion of substancehood might have at least as much, and perhaps more, to offer than an independence criterion and therefore ought to be explored further by neo-Aristotelians in search of a defensible notion of substancehood.  
 I indicated briefly how such a unity criterion might be used by neo-Aristotelians to support the inclusion of hylomorphic compounds in the category of substance, given the traditional role of form as the principle of unity within the compound." (p. 188)  
 References
56. ———. 2018. *Form, Matter, Substance*. Oxford: Oxford University Press.  
 "The Aristotelian doctrine of hylomorphism holds that those entities which are subsumed under it are compounds of matter (*hylē*) and form (*morphē* or *eidōs*)." (p. 1)  
 (...)  
 "With Chapter 5 ("Ontological Dependence"), I begin Part II ("Substance") whose main focus is on the question of whether concrete particular objects deserve to be assigned the ontologically privileged status of substancehood within a hylomorphic ontology and, if so, according to what notion of "ontological privilege." As noted earlier, this assignment becomes potentially problematic once concrete particular objects  
 are analyzed as metaphysically complex due to their hylomorphic structure. It is common to conceive of the substances as ontologically independent, according to some preferred sense of "independence." But what is this preferred sense of "ontological independence" and do matter–form compounds qualify as substances when we apply this notion of ontological independence to them? This chapter discusses various relations which have been defined in the literature under the heading of "ontological dependence."  
 I examine first existential construals of ontological dependence and turn next to construals of ontological dependence which are formulated in terms of a non-modal conception of essence. I argue in this chapter and Chapter 6 that even the most promising ones among these candidate relations are nevertheless open to objections when evaluated against various plausible measures of success. Chapter 5 incorporates material from Koslicki (2012a, 2013a)." (pp. 4-5)  
 References  
 Koslicki, Kathrin (2012a). "Varieties of Ontological Dependence," in Fabrice Correia and Benjamin Schnieder (eds), *Metaphysical Grounding: Understanding the Structure of Reality*. Cambridge University Press: Cambridge, pp. 186–213.  
 Koslicki, Kathrin (2013a). "Ontological Dependence: An Opinionated Survey," in Miguel Hoeltje, Benjamin Schnieder, and Alex Steinberg (eds), *Varieties of Dependence: Ontological Dependence, Grounding, Supervenience, Response-Dependence*. Philosophia Verlag: München, pp. 31–64.
57. Kovacs, David Mark. 2018. "The Deflationary Theory of Ontological Dependence." *Philosophical Quarterly* no. 68:481-502.  
 Abstract: "When an entity ontologically depends on another entity, the former 'presupposes' or 'requires' the latter in some metaphysical sense. This paper

- defends a novel view, Dependence Deflationism, according to which ontological dependence is what I call an aggregative cluster concept: a concept which can be understood, but not fully analysed, as a 'weighted total' of constructive (roughly: mereological in the broadest possible sense) and modal relations. The view has several benefits: it accounts for clear cases of ontological dependence as well as the source of disagreement in controversial ones; it gives a nice story about the evidential relevance of modal, mereological and set-theoretic facts to ontological dependence; and it makes sense of debates over the relation's formal properties. One important upshot of the deflationary account is that questions of ontological dependence are generally less deep and less interesting than usually thought."
58. ———. 2020. "Constitution and Dependence." *Journal of Philosophy* no. 117:150-177.  
Abstract: "Constitution is the relation that holds between an object and what it is made of: statues are constituted by the lumps of matter they coincide with; flags, one may think, are constituted by colored pieces of cloth; and perhaps human persons are constituted by biological organisms. Constitution is often thought to be a "dependence relation." In this paper, I argue that given some plausible theses about ontological dependence, most definitions of constitution don't allow us to retain this popular doctrine. The best option for those who want to maintain that constitution is a dependence relation is to endorse a kind of mereological hylomorphism: constituted objects have their constituters as proper parts, along with a form, which is another proper part. The upshot is that constitution theorists who think of constitution as a dependence relation but are reluctant to endorse mereological hylomorphism ought to give up one of their commitments."
59. Lowe, E. J. 1994. "Ontological Dependency." *Philosophical Papers* no. 23:31-48. "A crucial notion in metaphysics is that of one object *depending for its existence upon* another object - not in a merely causal sense, but in a deeper, quasi-logical sense. (I say 'quasi-logical' because, strictly speaking, logical relations can only obtain between propositions, not worldly objects.) Thus a *substance* is often conceived to be an object which does not depend for its existence upon anything else.(1) Again, *properties* are often said to depend for their existence upon the objects which possess them.(2)" (p. 31)  
(1) Thus Descartes, *Principles of Philosophy*, I, 5 1: 'by substance we can understand nothing other than a thing which exists in such a way as to depend on no other thing for its existence'. See John Cottingham et al. (eds), *The Philosophical Writings of Descartes* (Cambridge: Cambridge University Press, 1985), Vol. I, p. 210.  
(2) Thus Descartes, *Second Set of Replies*, Definition V: 'we know by the natural light that a real attribute cannot belong to nothing'. See Cottingham et al. (eds), *op. cit.*, Vol II, p. 114.
60. ———. 1998. *The Possibility of Metaphysics: Substance, Identity, and Time*. Oxford: Oxford University Press.  
Contents: 1 The Possibility of Metaphysics 1; 2 Objects and Identity 28; 3 Identity and Unity 58; 4 Time and Persistence 84; 5 Persistence and Substance 106; 6 Substance and Dependence 136; 7 Primitive Substances 154; 8 Categories and Kinds 174; 9 Matter and Form 190; 10 Abstract Entities 210; 11 Facts and the World 228; 12 The Puzzle of Existence 248;  
Bibliography 261; Index 269-275.  
"The arguments of Chapter 5 more or less take the concept of substance for granted and so part of the aim of Chapter 6 is to provide a rigorous definition of substance, in terms of the crucial notion of existential dependency. At the same time, I begin to build up a picture of the relationships between the category of substance and other categories of entities at the same ontological level—entities such as events, properties, places, and times. This picture is further developed in Chapter 7, where I go on to argue for quite general reasons that certain fundamental kinds of substance—what I call primitive substances—must exist in order to provide the ultimate

- existential grounding of all concrete existence. Such substances are distinctive in that their identity through time is itself primitive or ungrounded. However, identifying these substances is a more difficult matter than arguing in a general way for the necessity of their existence." (*Preface*, p. VI)
61. ———. 2004. "The Particular–Universal Distinction: A Reply to MacBride." *Dialectica* no. 58:335-340.  
Abstract: "In this brief reply to Fraser MacBride's critical examination of the four-category ontology and the place within it of the particular – universal distinction, it is argued that the prospects for identifying the four basic ontological categories in terms of the characteristic patterns of ontological dependency between entities belonging to the different categories are rather more promising than MacBride suggests."  
References  
MacBride, F. 2004, "Particulars, Modes and Universals: An examination of E. J. Lowe's Four-Fold Ontology", 58, pp. 317-333.
62. ———. 2004. "Some Formal Ontological Relations." *Dialectica* no. 58:297-316.  
Abstract: "Some formal ontological relations are identified, in the context of an account of ontological categorization.  
It is argued that neither formal ontological relations nor ontological categories should themselves be regarded as elements of being, but that this does not undermine the claim of formal ontology to be a purely objective science. It is also argued that some formal ontological relations, like some ontological categories, are more basic than others. A four-category ontology is proposed, in which two basic categories of universals and two basic categories of particulars are distinguished in terms of certain formal ontological relations characteristically obtaining between entities belonging to the different categories."
63. ———. 2012. "Asymmetrical Dependence in Individuation." In *Metaphysical Grounding: Understanding the Structure of Reality* edited by Correia, Fabrice and Schnieder, Benjamin, 214-233. Cambridge: Cambridge University Press.  
"Identity-dependence would appear to be an asymmetrical, or at least an *anti*-symmetrical relation, with the implication that no two distinct entities can be *each other's* individuators – even if we can allow, as I believe we should, that some entities are *self*-individuating. This point is related to the fact that circular explanations are inadmissible. For identity-dependence is clearly a species of explanatory relation, in the metaphysical – rather than the merely epistemic – sense of 'explanation'. The identity of a death is *explained*, at least partly, by the identity of its subject. As it may otherwise be put, a death has its identity at least partly 'in virtue of' the identity of its subject – and not the other way around." (p. 215)
64. ———. 2013. "Some Varieties of Metaphysical Dependence." In *Varieties of Dependence: Ontological Dependence, Grounding, Supervenience, Response-Dependence*, edited by Hoeltje, Miguel, Schnieder, Benjamin and Steinberg, Alex, 193-210. Munchen: Philosophia.  
"In this paper, I shall first of all (in section 1) define various kinds of ontological dependence, motivating these definitions by appeal to examples. My contention is that whenever we need, in metaphysics, to appeal to some notion of existential or identity-dependence, one or other of these definitions will serve our needs adequately, which one depending on the case in hand. Then (in section 2) I shall respond to some objections to one of these proposed definitions in particular, namely, my definition of (what I call) essential identitydependence. Finally (in section 3), I shall show how a similar approach can be applied in the theory of truthmaking, by offering an account of the truthmaking relation which defines it in terms of a type of essential dependence. I shall also say why I think that this approach is preferable to one which treats the truthmaking relation as primitive. More generally, my view is that accounts of dependence or 'grounding' which treat these notions as primitive are less satisfactory than my own position, which is that in all cases a suitable definition is forthcoming if we look hard enough." (p. 193)

65. ———. 2013. "Complex Reality: Unity, Simplicity, and Complexity in a Substance Ontology." In *Johanssonian Investigations: Essays in Honour of Ingvar Johansson on His Seventieth Birthday*, edited by Svennerlind, Ch, Almäng, J. and Ingthorsson, R., 338-357. Frankfurt: Ontos Verlag.
- "1. Ontology and Levels  
As I have just remarked, it is common in current metaphysics to speak of 'ontological levels'. But levels of what? As I understand it, we should take these to be levels of being, rather than mere levels of description of being. But what exactly is to be understood in this context by a 'level of being'? What I propose is that we should take a 'level of being' to be a level of beings, where 'beings' in the relevant sense are taken to be objects (though one might also want to include properties of objects).  
Moreover, I have in mind now only concrete objects, not abstract ones — a distinction that I shall discuss shortly. As well as clarifying what is to be understood by 'being' in this context, however, we need also to clarify what is to be understood by 'level'. This I propose to do in terms of part–whole relations.  
(...)  
"But accepting that — by definition, according to my proposal — a whole is always at a 'higher' level than its proper parts, is there anything more that we can say, quite generally, about how objects at different levels are related? I think so, because we can always ask, concerning objects at different levels, what relationships of ontological dependence — or, if this term is preferred, grounding — they stand in to one another. Of particular interest here are dependence relations which are asymmetric (or perhaps anti-symmetric) and which consequently determine an order of ontological priority between the objects so related, with the object depended upon (the 'dependee') having ontological priority over the dependent object (the 'dependee')." (p. 341)
66. Lycan, William G. 1970. "Identifiability-Dependence and Ontological Priority." *The Personalist* no. 51:502-513.
67. MacBride, Fraser. 2004. "Particulars, Modes and Universals: An examination of E. J. Lowe's Four-Fold Ontology." *Dialectica* no. 58:317-333.  
Abstract: "Is there a particular-universal distinction? Ramsey famously advocated scepticism about this distinction. In "Some Formal Ontological Relations" E.J. Lowe argues against Ramsey that a particular-universal distinction can be made out after all if only we allow ourselves the resources to distinguish between the elements of a four-fold ontology. But in defence of Ramsey I argue that the case remains to be made in favour of either (1) the four-fold ontology Lowe recommends or (2) the articulation of a particular-universal distinction within it. I also argue that the case remains to be made against (3) a spatio-temporal conception of the particular-universal distinction."
68. McKenzie, Kerry. 2014. "Priority and Particle Physics: Ontic Structural Realism as a Fundamentality Thesis." *British Journal for the Philosophy of Science* no. 65:353-380.  
Abstract: "In this article, I address concerns that the ontological priority claims definitive of ontic structural realism are as they stand unclear, and I do so by placing these claims on a more rigorous formal footing than they typically have been hitherto. I first of all argue that Kit Fine's analysis of ontological dependence furnishes us with an ontological priority relation that is particularly apt for structuralism. With that in place, and with reference to two case studies prominent within the structuralist literature, I consider whether any of structuralism's distinctive priority claims may be regarded as warranted. The discussion as a whole has largely negative implications for the radical structuralism of French and Ladyman (including their 'eliminativist' interpretation of it), largely positive implications for the moderate structuralism primarily advocated by Esfeld and Lam, and some broad lessons for contemporary fundamentalist metaphysics as a whole."  
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69. ———. 2019. "Dependence." In *The Routledge Handbook of Emergence*, edited by Gibb, Sophie, Hendry, Robin and Lancaster, Tom, 36-53. New York: Routledge. "Dependence is the most general notion under which a host of familiar metaphysical relations between entities – causation, supervenience, grounding, realisation, etc. – fall. In the first section of this chapter, I will offer some preliminary clarifications to outline the territory in a little more detail. Some years back, this would have primarily involved differentiating kinds of dependence in terms of the strength of the modal operators used and the other details of an analysis deploying them. Now, there has been a proliferation of non-purely modal accounts of dependence. The second section identifies the various reasons that have been offered for this proliferation. The third section discusses a notion of ontological dependence and grounding, each of which draws on an appeal to the essence of the depending, or depended upon, entities. In spite of their popularity, we will see that such notions are of little assistance in capturing a central case of interest to us: the proper understanding of emergence. In the light of this, the fourth section defends a purely modal treatment of some of the problem cases outlined in the first section and also discusses a non-modal notion of construction. I close with a hypothesis that the combination of three features, a non-dependence account of fundamentality, various notions of construction and purely modal properties, remove the motivation for appeal to an independent account of grounding in this, and perhaps any, area." (p. 36)
70. ———. 2020. "Structuralism in the Idiom of Determination." *British Journal for the Philosophy of Science* no. 71:497-522.  
 Abstract: "Ontic structural realism (OSR) is a thesis of fundamentality metaphysics: the thesis that structure, not objects, has fundamental status. Claimed as the metaphysic most befitting of modern physics, OSR first emerged as an entreaty to eliminate objects from the metaphysics of fundamental physics. Such elimination was urged by Steven French and James Ladyman on the grounds that only it could resolve the ‘underdetermination of metaphysics by physics’ they claimed reduced any putative objectual commitment to a merely ‘ersatz’ form of realism. Few, however, have joined French and Ladyman either in acknowledging that such underdetermination exists or in attributing to it such drastic consequences. However, an alternative view that physics does sanction objects, albeit merely as ontologically secondary entities, represents a different and seemingly less extreme route to the same conclusion regarding the fundamentality of structure. But since what it means to be ‘ontologically prior’ is itself a vexed philosophical question, a stance must be taken as to how we are to understand priority before its prospects may be evaluated. In an earlier paper, I outlined how Fine’s notion of ontological dependence might be utilized to defend the priority-based approach to structuralism. Since then, however, I have become convinced that that ontological dependence is not a relation of priority after all. As a result, the arguments outlined in that paper stand in need of reassessment. In this work, I consider the prospects for priority-based structuralism when expressed in the idiom of determination. My conclusion will be that it has yet to be vindicated by our best physical theories, owing to the failure of symmetry structures to determine the world’s inventory of fundamental kinds. Nevertheless, the same symmetry considerations point toward there being renewed prospects for eliminativism—an eliminativism, moreover, of more naturalistic appeal than that hitherto associated with OSR."

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71. Meixner, Uwe. 1998. "Actual Existence, Identity and Ontological Priority." *Erkenntnis* no. 48:209-226.  
Abstract: "The paper first distinguishes ontological priority from epistemological priority and unilateral ontic dependence. Then explications of ontological priority are offered in terms of the reducibility of the actual existence or identity of entities in one ontological category to the actual existence or identity of entities in another. These explications lead to incompatible orders of ontological priority for individuals, properties of individuals and states of affairs. Common to those orders is, however, that the primacy of the category of individuals is abandoned. This primacy is challenged in the paper also by epistemological arguments, and an onto-anthropological explanation is offered for the very common but false idea that individuals are ontological prior to all other kinds of entities. Finally ontological priority is discussed with respect to a fully specified system of ontological categories."
72. Moltmann, Friederike. 2019. "Ontological Dependence, Spatial Location, and Part Structure." In *Ontology Makes Sense: Essays in Honor of Nicola Guarino*, edited by Borgo, Stefano, Ferrario, Roberta, Masolo, Claudio and Vieu, Laure, 211-221. Amsterdam: IOS Publications.  
Abstract: "This paper presents new observations about ontologically dependent objects which cannot have a host-independent spatial location or a physical part structure, namely disturbances (holes, folds, scratches), tropes, and attitudinal objects (claims, thoughts, promises, requests). It proposes an account of such attributively limited objects in terms of Fregean abstraction, which has so far been applied only to abstract objects."
73. Moran, Alex. 2018. "The Paradox of Decrease and Dependent Parts." *Ratio* no. 31:273-284.  
Abstract "This paper is concerned with the paradox of decrease. Its aim is to defend the answer to this puzzle that was propounded by its originator, namely, the Stoic philosopher Chrysippus.[\*] The main trouble with this answer to the paradox is that it has the seemingly problematic implication that a material thing could perish due merely to extrinsic change. (For, intuitively, it is not possible for a mere extrinsic change to cause a material thing to cease to be.) It follows that in order to defend Chrysippus' answer to the paradox, one has to explain how it could be that Theon is destroyed by the amputation without changing intrinsically. In this paper, I shall answer this challenge by appealing to the broadly Aristotelian idea that at least some of the proper parts of a material substance are ontologically dependent on that substance. I will also appeal to this idea in order to offer a new solution to the structurally similar paradox of increase. In this way, we will end up with a unified solution to two structurally similar paradoxes."  
"This paper is concerned with an ancient puzzle: the paradox of decrease. Consider Dion, a human being, and Theon, one of Dion's large proper parts, identical to all of Dion besides his left foot. Suppose that Dion's left foot is amputated, and that Dion survives. (Suppose also that Dion undergoes no further mereological change.) Intuitively, Theon survives in this scenario as well as Dion; after all, Theon only undergoes extrinsic change. However, if this is right, it follows that post-amputation, Dion and Theon end up composed of the very same matter, whilst occupying exactly the same region of space. Intuitively, however, it is not possible for two material objects to occupy precisely the same spatial region, or be composed of the very same matter, at once.(1)" (pp. 273-2174)  
[\*] The paradox is reported by Philo of Alexandria, *On the Indestructibility of the World* 48 (von Armin, *Stoicorum Veterum Fragmenta* 2.397); English translation in

- A.A. Long & D. N. Sedley, *The Hellenistic Philosophers*, Cambridge: Cambridge University press 1987, Vol. 1, pp. 171-172]
74. Morganti, Matteo. 2009. "Ontological Priority, Fundamentality and Monism." *Dialectica* no. 63:271-298.  
 Abstract: "In recent work, the interrelated questions of whether there is a fundamental level to reality, whether ontological dependence must have an ultimate ground, and whether the monist thesis should be endorsed that the whole universe is ontologically prior to its parts have been explored with renewed interest. Jonathan Schaffer has provided arguments in favour of 'priority monism' in a series of articles (2003, 2004, 2007a, 2007b, forthcoming). In this paper, these arguments are analysed, and it is claimed that they are not compelling: in particular, the possibility that there is no ultimate level of basic entities that compose everything else is on a par with the possibility of infinite 'upward' complexity. The idea that we must, at any rate, postulate an ontologically fundamental level for methodological reasons (Cameron 2008) is also discussed and found unconvincing: all things considered, there may be good reasons for endorsing 'metaphysical infinitism'. In any event, a higher degree of caution in formulating metaphysical claims than found in the extant literature appears advisable."  
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 Schaffer, J. 2007a, 'From Nihilism to Monism', *Australasian Journal of Philosophy* 85, pp. 175–191.  
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75. ———. 2014. "Metaphysical Infinitism and the Regress of Being." *Metaphilosophy* no. 45:232-244.  
 Abstract: "This article offers a limited defense of metaphysical "infinitism," the view that there are, or might be, infinite chains of ontological dependence. According to a widespread presupposition, there must be an ultimate ground of being—most likely, a plurality of fundamental atoms. Contrary to this view, this article shows that metaphysical infinitism is internally coherent. In particular, a parallel with the debate concerning infinitism about epistemic justification is suggested, and an "emergence model" of being is put forward. According to the emergence model, the being of any given entity gradually arises out of an infinite series of progressively less dependent entities—it is not wholly transmitted, as it were, from a basic, ungrounded level to all the dependent ones in a step-by-step fashion. Some objections are considered and rebutted."
76. ———. 2015. "Dependence, Justification and Explanation: Must Reality be Well-Founded?" *Erkenntnis* no. 80:555-572.  
 Abstract: "Abstract This paper is about metaphysical 'infinitism', the view that there are, or could be, infinite chains of ontological dependence. Its main aim is to show that, contrary to widespread opinion, metaphysical infinitism is a coherent position. On the basis of this, it is then additionally argued that metaphysical infinitism need not fare worse than the more canonical 'foundationalist' alternatives when it comes to formulating metaphysical explanations. In the course of the discussion, a rather unexplored parallel with the debate concerning infinitism about justification is suggested."
77. ———. 2018. "From Ontic Structural Realism to Metaphysical Coherentism." *European Journal for Philosophy of Science* no. 9:1-20.

Abstract: "The present paper argues that the typical structuralist claims according to which invariances, symmetries and the like are fundamental – especially in physics – should not be understood in terms of physical relations being fundamental. Rather, they should be understood in terms of ‘metaphysical coherentism’ - the idea that object-like parts of reality exhibit symmetric relations of ontological dependence. The view is developed in some detail, in particular by showing that i) symmetric ontological dependence does not necessarily lead to uninformative metaphysical explanations, and ii) metaphysical coherentism strikes the best balance between the requirements of naturalism and those of theoretical consistency – especially in view of the difficulties that structuralists seem to have in accounting for all state-independent properties of particles in relational terms. On this basis, the coherentist picture is applied to the interpretation of the quantum domain, and contrasted with extant varieties of structuralism, of both the eliminative and the non-eliminative sort, and holism."

78. Morris, Kevin. 2018. "Truthmaking and the Mysteries of Emergence." In *Brute Facts*, edited by Vintiadis, Elly and Mekios, Constantinos, 113-119. Oxford: Oxford University Press.  
 "My focus in what follows will be on the claim that truthmaking can play a substantive role in defining an unproblematic notion of *emergence*. While “emergence” and related locutions have been used to express a variety of nonequivalent ideas, in perhaps the most philosophically interesting sense, to say that some property M is *emergent* is to say that while instances of M synchronically depend on instances of other properties, instances of M are truly novel additions to the world; and instances of M are genuine additions to the world, at least in part, in virtue of making a unique and distinctive causal contribution." (p. 113, a note omitted)  
 (...)  
 "I will begin by sketching the two central notions of the truthmaking-based precisification of emergence: the notion of being needed as a truthmaker and the notion of ontological dependence." (p. 115)
79. Mount, Beau Madison. 2019. "Antireductionism and Ordinals." *Philosophia Mathematica* no. 27:105-124.  
 Abstract: "I develop a novel argument against the claim that ordinals are sets. In contrast to Benacerraf’s antireductionist argument, I make no use of covert epistemic assumptions. Instead, my argument uses considerations of ontological dependence.  
 I draw on the datum that sets depend immediately and asymmetrically on their elements and argue that this datum is incompatible with reductionism, given plausible assumptions about the dependence profile of ordinals. In addition, I show that a structurally similar argument can be made against the claim that cardinals are sets."
80. Nelson, Michael. 2013. "Modal Metaphysics. Contingently Existing Propositions." *Canadian Journal of Philosophy* no. 43:776-803.  
 Abstract: "I argue that propositions are contingent existents. Some propositions that in fact exist might not have existed and there might have been propositions that are distinct from every actually existing proposition. This is because some propositions are singular propositions, which are propositions containing ordinary objects as constituents, and so are ontologically dependent on the existence of those objects; had those objects not existed, then the singular propositions would not have existed. I provide both a philosophical and technical understanding of the contingent status of propositions."
81. Nolan, Daniel. 2011. "Categories and Ontological Dependence." *The Monist* no. 94:277-301.  
 "In this paper I want to do two connected things. The first is to explore, in general terms, some of the issues that come up when we start considering ontological categories and questions about relations of dependence between them (either

- between the members of one and the members of another, or between the categories themselves). The second is to discuss one particular way we could try to illuminate the apparent dependence relationships between categories (or apparent categories): by exploring and tentatively defending a particular account of how ordinary things are related to events, and how we might relate the putative category of 'physical object' (or 'thing', as I will call them) to the putative category of 'event'." (p. 277)
82. Noordhof, Paul. 2019. "Dependence." In *The Routledge Handbook of Emergence*, edited by Gibb, Sophie, Hendry, Robin and Lancaster, Tom, 36-53. New York: Routledge.
- "Dependence is the most general notion under which a host of familiar metaphysical relations between entities – causation, supervenience, grounding, realisation, etc. – fall. In the first section of this chapter, I will offer some preliminary clarifications to outline the territory in a little more detail. Some years back, this would have primarily involved differentiating kinds of dependence in terms of the strength of the modal operators used and the other details of an analysis deploying them. Now, there has been a proliferation of non-purely modal accounts of dependence. The second section identifies the various reasons that have been offered for this proliferation. The third section discusses a notion of ontological dependence and grounding, each of which draws on an appeal to the essence of the depending, or depended upon, entities. In spite of their popularity, we will see that such notions are of little assistance in capturing a central case of interest to us: the proper understanding of emergence. In the light of this, the fourth section defends a purely modal treatment of some of the problem cases outlined in the first section and also discusses a non-modal notion of construction. I close with a hypothesis that the combination of three features, a non-dependence account of fundamentality, various notions of construction and purely modal properties, remove the motivation for appeal to an independent account of grounding in this, and perhaps any, area."
83. Orilia, Francesco. 2016. "Armstrong's Supervenience and Ontological Dependence." In *Metaphysics and Scientific Realism: Essays in Honour of David Malet Armstrong*, edited by Calemi, Francesco Federico, 233-251. Berlin: De Gruyter.
- "Let us then turn to the dependence proposal, the idea that FL is (or should be) a way of saying that the supervenient is ontologically dependent on the subvenient. This option is certainly intriguing and worth exploring, for it seems in line with Armstrong's insistence on (contingent) particulars, universals and states of affairs as somehow fundamental: everything else seems to depend on this basic level." (p. 238)
- (...)
- "In sum, if we are to understand FL in terms of ontological dependence, as we are trying to do, it seems we should enroll Armstrong in the party of those who do not take ontological dependence as necessarily well-founded. Schaffer 2010 argues from the empirical possibility of gunks, objects made up of smaller and smaller parts ad infinitum, to priority monism, the thesis that the cosmos is a whole on which everything else, qua part, is dependent. But this argument presupposes that the well-foundedness of dependence is taken for granted. However, if we rather take for granted the plausible idea that a complex such as P&Q is dependent on its parts and not vice versa (after all, according to Armstrong, as we have seen, P&Q might fail to exist even if P and Q exist), the possibility of gunky universals should rather lead us to question the well-foundedness of dependence. Similarly, well-foundedness should be questioned, given the possibility of gunks, or the possibility of appealing to fact infinitism to account for the relatedness of universals and particulars that brings about states of affairs." (p. 249)
- Sigla = FL = "doctrine of the ontological free lunch" [ "One may call this view, that the supervenient is not something additional to what it supervenes upon, the doctrine of the ontological free lunch. Like other free lunches, this one gives and takes away at the same time. You get the supervenient for free, but you do not really

- get an extra entity." D. M. Armstrong, *A World of States of Affairs*, Cambridge: Cambridge University Press 1997, pp. 12-13.]
84. Page, Sam. 2006. "Mind-independence disambiguated: Separating the meat from the straw in the realism/anti-realism debate." *Ratio* no. 19:321-335.  
Abstract: "The notion of mind-independence plays a central role in the contemporary realism/anti-realism debate, but the notion is severely ambiguous and consequently the source of considerable misunderstanding.  
In this paper, four kinds of mind-independence are distinguished: ontological, causal, structural, and individuative independence. Appreciating these distinctions entails that one can reject the individuative independence of the natural world, and still maintain that the natural world is causally and structurally independent of us. This paper argues that so-called anti-realists, especially Rorty, Putnam, and Goodman, are not opposed to the causal and structural independence of the natural world, as is frequently alleged, but rather its individuative independence. An acceptance of these points will hopefully put an end to the prevalence of strawmen in the debate, and focus attention on meatier issues."
85. Paolini Paoletti, Michele. 2016. "Non-Symmetrical Relations, O-Roles, and Modes." *Acta Analytica* no. 31:373-395.  
Abstract: "I examine and discuss in this paper Orilia's theory of external, non-symmetrical relations, that is based on ontological roles (O-Roles). I explore several attempts to interpret O-Roles from an ontological viewpoint and I reject them because of two problems concerning the status of asymmetrical relations (to be distinguished from non-symmetrical relations simpliciter) and of exemplification as an external, non-symmetrical relation. Finally, following Heil's and Lowe's characterization of modes as particular properties that ontologically depend on their "bearers", I introduce relational modes in order to define a new solution to the problems of the ontological status of both external, non-symmetrical relations and O-Roles. I also deal with five objections raised by Fraser MacBride against relational modes and O-Roles and I elaborate an analysis of the relations of being to the left of and being to the right of."  
References  
MacBride, F. (2007). Neutral relations revisited. *Dialectica*, 61(1), 25–56.  
MacBride, F. (2014). How involved do you want to be in a non-symmetric relationship? *Australasian Journal of Philosophy*, 92(1), 1–16.
86. ———. 2018. "Substance Causation." *Philosophia*:1-22.  
"Let me now turn to fundamentality – or ontological independence/basicness. An intuitive characterization of fundamentality is the following: an entity is fundamental if and only if (iff) it is needed to ground(1) something in the universe and it is not grounded by anything else. Metaphorically speaking, fundamental entities are all and only those entities that some "lazy" omniscient and omnipotent being would need to invoke in order to ground what happens in the universe." (p. 2  
(1) I assume here that something is fundamental iff it is ontological independent (or ontologically basic) – even if there are some modal characterizations of ontological independence according to which the ontological independence of something does not guarantee its fundamentality. Moreover, as it will become apparent in a few lines, I am not committed here to the idea that fundamentality/ontological independence must be characterized in terms of some primitive relation of grounding. Therefore, my use of the verb "to ground" does not aim at recalling the latter view."
87. ———. 2019. "Respects of Dependence." *Studia Neoaristotelica* no. 16:49-82.  
Abstract: "I consider in this paper respects of dependence, namely, the fact that some entities depend on other entities in some respect or another. In the first section, I provide a characterization of contemporary debates on dependence based on respects of dependence. I also single out seven desiderata a good theory of dependence should satisfy and three ways of interpreting respects of dependence. In

the second section, I criticize two of such ways and, in the third section, I defend the remaining option, namely, that respects of dependence correspond to different dependence-relations between entities (e.g., existence-dependence, identity-dependence, and so on). In the fourth section, I develop my theory of Respect-of-Dependence (RD) Relations in order to distinguish between partial and full dependence and between specific and generic dependence, and to qualify RD-relations in temporal and modal terms. Finally, in the last section, I anticipate and reply to three objections against dependence pluralism."

88. ———. 2021. "Respects of Dependence and Symmetry." *Studia Neoaristotelica* no. 18:31-68.  
 Abstract: "In this article I discuss several apparent counterexamples to the asymmetry of ontological dependence. These counterexamples were introduced in discussions about grounding, but they can affect every theory of ontological dependence. I show that, if one adopts metaontological pluralism (i.e., the view according to which there are many dependence relations), one has some advantages when it comes to defending the asymmetry of dependence. In Section 1, I introduce metaontological pluralism and my own version of it, which is based on Respect-of-Dependence Relations (RD-Relations). I then single out five strategies to deal with apparent cases of symmetric dependence and show that only two of them are available to metaontological pluralists. In Sections 2, 3, and 4 I deal with cases of symmetric dependence by adopting these strategies. Finally, in Section 5, I anticipate and reply to three objections against my account."
89. Pearson, Olley. 2018. "Emergence, Dependence, and Fundamentality." *Erkenntnis* no. 83:391-402.  
 Abstract: "In a recent paper Barnes proposes to characterize ontological emergence by identifying the emergent entities with those entities which are both fundamental and dependent. Barnes offers characterizations of the notions of fundamentality and dependence, but is cautious about committing to the specifics of these notions. This paper argues that Barnes's characterization of emergence is problematic in several ways. Firstly, emergence is a relation, and merely delimiting relata of this relation tells us little about it. Secondly, the group of entities delimited as dependent and fundamental do not appear to be the group of emergent entities. Rather, some entities appear to be dependent and fundamental and not emergent, whilst other entities appear to be emergent and not dependent and fundamental. The moral drawn is that in order to provide a characterization of emergence one must go beyond what Barnes says explicitly. It is also shown that a potentially fruitful way of doing this would be to further specify the notion of dependence at issue revealing it to be asymmetric and perhaps merely nomological."  
 References  
 Barnes, E. (2012). Emergence and fundamentality. *Mind*, 121(484), 873–901.
90. Plantinga, Alvin. 1979. "De Essentia." *Grazer Philosophische Studien* no. 7:101-121.  
 Abstract: "In this paper I propose an amendment to Chisholm's definition of individual essence.[\*] I then argue that a thing has more than one individual essence and that there is no reason to believe no one grasps anyone else's essence. The remainder of the paper is devoted to a refutation of existentialism, the view that the essence of an object X (along with propositions and states of affairs directly about x) is ontologically dependent upon x in the sense that it could not have existed if x had not existed."  
 [\*] Roderick Chisholm, *Person and Object* (London: Allen and Unwin 1976), p. 29: "D.I.5 G is an *individual essence* (or *haecceity*) =Df G is a property which is such that, for every x, x has G if and only if x is necessarily such that it has G, and it is impossible that there is a y other than x such that y has G." (Note added)
91. Poli, Roberto. 2010. "Spheres of Being and the Network of Ontological Dependencies." *Polish Journal of Philosophy* no. 4:171-182.

Abstract: "Ontological categories form a network of ties of dependence. In this regard, the richest source of distinctions consists in the medieval discussion on the divisions of being.

After a preliminary examination of some of those divisions, the paper pays attention to Roman Ingarden's criteria for classifying the various types of ontological dependence. The following are the main conclusions that can be drawn from this exercise. Ingarden suggests that (1) the most general principles framing the categories of particulars are based on couples of mutually opposed principles; (2) the most general among these couples of principles appear to be based on three different types of modalities; (3) subsequent couples of opposed principles do not seem to require the introduction of further types of modalities, and (4) the overall typology shows that there are three spheres of being, respectively composed of ideal entities, real entities and intentional entities as contents of psychological acts."

92. Prescott-Couch, Alexander. 2017. "Explanation and Manipulation." *Noûs* no. 51:484-520.

Abstract: "I argue that manipulationist theories of causation fail as accounts of causal structure, and thereby as theories of "actual causation" and causal explanation. I focus on two kinds of problem cases, which I call "Perceived Abnormality Cases" and "Ontological Dependence Cases." The cases illustrate that basic facts about social systems—that individuals are sensitive to perceived abnormal conditions and that certain actions metaphysically depend on institutional rules—pose a challenge for manipulationist theories and for counterfactual theories more generally. I then show how law-based accounts of causal structure can answer such challenges. The moral of the story is that the basic manipulationist idea that our interest in causal structure is driven by our interest in manipulating our environment faces decisive problems in a central domain of application, the social sciences."

93. Rosen, Gideon. 2010. "Metaphysical Dependence: Grounding and Reduction." In *Modality: Metaphysics, Logic, and Epistemology*, edited by Hale, Bob and Hoffmann, Aviv, 109-135. New York: Oxford University Press.

"Introduction: This essay is a plea for ideological toleration. Philosophers are right to be fussy about the words they use, especially in metaphysics where bad vocabulary has been a source of grief down through the ages. But they can sometimes be too fussy, dismissing as 'unintelligible' or 'obscure' certain forms of language that are perfectly meaningful by ordinary standards and which may be of some real use.

So it is, I suggest, with certain idioms of metaphysical determination and dependence. We say that one class of facts *depends upon* or *is grounded* in another. We say that a thing possesses one property in virtue of possessing another, or that one proposition makes another true. These idioms are common, as we shall see, but they are not part of anyone's official vocabulary. The general tendency is to admit them for heuristic purposes, where the aim is to point the reader's nose in the direction of some philosophical thesis, but then to suppress them in favor of other, allegedly more hygienic formulations when the time comes to say *exactly* what we mean. The thought is apparently widespread that while these ubiquitous idioms are sometimes convenient, they are ultimately too unclear or too confused, or perhaps simply too exotic to figure in our first-class philosophical vocabulary.

Against this tendency, I suggest that with a minimum of regimentation these metaphysical notions can be rendered clear enough, and that much is to be gained by incorporating them into our analytic tool kit. I make this proposal in an experimental spirit. Let us see how things look if we relax our antiseptic scruples for a moment and admit the idioms of metaphysical dependence into our official lexicon alongside the modal notions (metaphysical necessity and possibility, the various forms of supervenience) with which they are often said to contrast unfavorably. If this only muddies the waters, nothing is lost; we can always retrench. If something is gained, however, as I believe it is, we may find ourselves in a position to make some progress. (pp. 109-110)

94. Rosenkrantz, Gary S. 2018. "Of Facts and Things." *International Journal of Philosophical Studies* no. 26:679-700.  
 Abstract: "This paper examines the ontological status of individual substances; intuitive examples of such entities include particles and living organisms. My aim is to assess the ontological status of individual substances in the light of arguments for an ontology of [concrete] facts, often called states of affairs. Advocates of a fact ontology have argued that these factive entities are the ontologically fundamental beings. I will address the salient question of whether individual substances are reducible to, or eliminable in favor of, facts. I will further address the question of whether individual substances, even if not reducible to facts, are nonetheless ontologically dependent upon facts in a way that undercuts the claim that some individual substances are ontologically fundamental. Finally, I will argue that a persuasive case for the claim that facts are what is ontologically fundamental has yet to be made."
95. Rosenkrantz, Gary S., and Hoffmann, Joshua. 1991. "The Independence Criterion of Substance." *Philosophy and Phenomenological Research* no. 51:835-853.  
 "According to a traditional view, an individual substance is that which could exist all by itself or which in some sense is "independent." In this paper, we construct a new version of an analysis of the notion of substance in terms of independence, and argue for its adequacy.  
 It should be noted that our project is to analyze the concept of individual substance as ordinarily understood, paradigm instances of which seem to be particular material objects and persons."  
 (...)  
 "For the purposes of our analysis we shall assume (plausibly, we think) that a thing in this ordinary sense, i.e., an individual substance, is not reducible to or identifiable with an entity of another kind or ontological category, e.g., a set or collection of either properties, ideas, sense-data, or events. (This does not rule out the possibility that a substance can be eliminated in favor of an entity of another kind or ontological category."  
 Since there is considerable disagreement among philosophers about what kinds of entities could exist, and since such disagreement is difficult to resolve, there is an advantage, epistemically speaking, in providing an analysis of substance which is ontologically neutral." (pp. 835-836, notes omitted)
96. Rydén, Henrik. 2018. "Grounding and Ontological dependence." *Synthese* no. 198:1231-1256.  
 Abstract: "Recent metaphysics has seen a surge of interest in grounding—a relation of non-causal determination underlying a distinctive kind of explanation common in philosophy. In this article, I investigate the connection between grounding and another phenomenon of great interest to metaphysics: ontological dependence. There are interesting parallels between the two phenomena: for example, both are commonly invoked through the use of "dependence" terminology, and there is a great deal of overlap in the motivations typically appealed to when introducing them. I approach the question of the relationship between grounding and ontological dependence through an investigation of their modal connections (or lack thereof). I argue, firstly, that on the common assumption that grounding is factive, it can be shown that no known variety of rigid ontological dependence is either necessary or sufficient for grounding. I also offer some suggestions in support of the claim that this generalizes to every possible form of rigid ontological dependence. I then broaden the discussion by considering a non-factive conception of grounding, as well as by looking at forms of generic (rather than rigid) ontological dependence. I argue that there is at least one form of rigid ontological dependence that is sufficient for non-factive grounding, and that a form of generic dependence may be necessary (but not sufficient) both for factive and non-factive grounding. However, justifying even these fairly weak modal connections between grounding and ontological dependence turns out to require some quite specific and substantive assumptions about the two phenomena that have only rarely been discussed."

97. Sacchi, Elisabetta, and Voltolini, Alberto. 2012. "To Think is to Have Something in One's Thought." *Quaestio* no. 12:395-422.  
 "In this paper we will focus on the most basic form of intentionality, namely *reference intentionality* or *aboutness*: the property an intentional event or state (for short: a *thought*) has of *being about*, or *of*, a certain object, the entity thereby labelled the *intentional object*. Hereafter, by "intentionality" we will mean reference intentionality.  
 Along with a well-honoured tradition, we will accept that intentionality is at least a property a thought holds necessarily, i.e., in all possible worlds that contain it; more specifically, a necessary relation, namely the relation of *existential* dependence of the thought on its intentional object. Yet we will first of all try to show that intentionality is more than that. For we will claim that intentionality is an *essential* property of the thought, namely a property whose predication to the thought is true in virtue of the identity, or nature, of such a thought. More particularly, for us intentionality will again be a relation, yet a relation of *ontological* dependence of the thought on its intentional object; specifically, the relation for the thought of *being constituted* by its object." (p. 395, notes omitted)
98. Schnieder, Benjamin. 2006. "A Certain Kind of Trinity: Dependence, Substance, Explanation." *Philosophical Studies* no. 129:393-419.  
 Abstract: "The main contribution of this paper is a novel account of *ontological dependence*. While dependence is often explained in terms of modality and existence, there are relations of dependence that slip through the mesh of such an account. Starting from an idea proposed by Jonathan Lowe, the article develops an account of ontological dependence based on a notion of *explanation*; on its basis, certain relations of dependence can be established that cannot be accounted by the modal-existential account.  
*Dependence* is only one of two main topics of this paper, for it is approached via a discussion of the category of *substance*. On a traditional view, substances can be characterised as *independent* entities. Before the background of a modal-existential account of dependence, this idea appears problematic.  
 The proposed notion of *explanatory* dependence is shown to vindicate the traditional approach to substance."
99. ———. 2020. "Dependence." In *The Routledge Handbook of Metaphysical Grounding*, edited by Raven, Michael J., 107-120. New York: Routledge.  
 "Not all entities are born equal. Some entities exist only derivatively: they depend for their existence on other, more fundamental entities that make the former exist. To study such existential dependencies is an important task of ontology.  
 Similarly, not all truths and facts are born equal. Some truths are derivative: they are true because of other, more fundamental truths that make the former true; these latter truths can be called the grounds of the former, and the relation holding between grounds and what they ground can be called grounding. Equally, some facts are derivative: they obtain because of other, more fundamental facts, i.e., their grounds.  
 As illustrated by these paragraphs, characterizations of existential dependence and of grounding can be phrased in similar terms. Dependent entities are often called derivative and are said to owe their existence to other entities that make them exist, just as grounded facts are often said to be derivative and to owe their obtaining to other facts that make them obtain. That observation motivates the question how exactly the notion of grounding relates to notions of existential dependence (and also other sorts of dependency; more on that in what follows). This is the main concern of this handbook entry.  
 As to the structure of what follows: In §2, notions of dependence are characterized in a general way. In §3, notions of existential and ontological dependence are introduced. In §4, proposals about how existential dependence relates to grounding are discussed." (p. 107)

100. Schwartzkopff, Robert. 2011. "Numbers as Ontologically Dependent Objects: Hume's Principle Revisited." *Grazer Philosophische Studien* no. 82:353-373. Summary: "Adherents of Ockham's fundamental razor contend that considerations of ontological parsimony pertain primarily to fundamental objects. Derivative objects, on the other hand, are thought to be quite unobjectionable. One way to understand the fundamental vs. derivative distinction is in terms of the Aristotelian distinction between ontologically independent and dependent objects. In this paper I will defend the thesis that every natural number greater than 0 is an ontologically dependent object thereby exempting the natural numbers from Ockham's fundamental razor."
101. Sethi, Umrao. 2021. "The Varieties of Instantiation." *Journal of the American Philosophical Association* no. 7:417-437. Abstract: "Working with the assumption that properties depend for their instantiation on substances, I argue against a unitary analysis of instantiation. On the standard view, a property is instantiated just in case there is a substance that serves as the bearer of the property. But this view cannot make sense of how properties that are *mind-dependent* depend for their instantiation on minds. I consider two classes of properties that philosophers often take to be mind-dependent: sensible qualities like color, and bodily sensations like itches. Given that the mind is never itself literally red or itchy, we cannot explain the instantiation of these qualities as a matter of their having a mental bearer. Appealing to insights from Berkeley, I defend a view on which a property can be instantiated not in virtue of having a bearer—mental or material—but rather in virtue of being the object of a conscious act of perception. In the second half of the paper, I suggest that the best account of sensible qualities and bodily sensations ultimately makes use of both varieties of instantiation."
102. Simons, Peter M. 1987. *Parts: A Study in Ontology*. Oxford: Clarendon Press. Chapter 8: *Ontological Dependence*, pp. 290-323.
103. Smith, Deborah C. 2012. "Rainbows, Time Zones, and Other Mind-Dependent Objects: Making Sense of the Relevant Notions of "Mind-Dependence" in the Debate between Metaphysical Realists and Antirealists." *Open Journal of Philosophy* no. 2:38-44. Abstract: "In a recent article, Sam Page distinguishes four kinds of mind-(in)dependence: ontological, causal, structural, and individuating. He argues that, despite the fact that the metaphysical realism/antirealism debate has been frequently characterized as a debate between those who accept and those who deny that the world is causally and/or structurally dependent on minds, many antirealists are primarily interested in defending the claim that the world is individually mind-dependent. In this article, I critically examine these differing senses of "mind-dependence" highlighting ways in which they remain ambiguous and identifying various entailment relations between them. I argue that there is reason to believe that ontological dependence, structural dependence, and the only sort of individuating dependence that is relevant to the metaphysical debate are coextensive notions. As such, any argument that succeeds in establishing that it is incoherent to suppose that everything is ontologically and/or structurally dependent thereby establishes the incoherence of metaphysical antirealism."
104. Steinberg, Alex. 2015. "Priority monism and part/whole dependence." *Philosophical Studies* no. 172:2025-2031. Abstract: "Priority monism is the view that the cosmos is the only independent concrete object. The paper argues that, pace its proponents, Priority monism is in conflict with the dependence of any whole on any of its parts: if the cosmos does not depend on its parts, neither does any smaller composite."
105. Tallant, Jonathan. 2015. "Ontological Dependence in a Spacetime-World." *Philosophical Studies* no. 172:3101-3118.

Abstract: "Priority Monism (hereafter, 'Monism'), as defined by Jonathan Schaffer (*Philos Rev* 119:131–176, 2010), has a number of components. It is the view that: the cosmos exists; the cosmos is a maximal actual concrete object, of which all actual concrete objects are parts; the cosmos is basic—there is no object upon which the cosmos depends, ontologically; ontological dependence is a primitive and unanalysable

relation. In a recent attack, Lowe (*Spinoza on monism*. Palgrave Macmillan, London, pp 92-122, 2012) has offered a series of arguments to show that Monism fails. He offers up four tranches of argument, with different focuses.

These focal points are: (1) being a concrete object; (2) aggregation and dependence; (3) analyses of ontological dependence; (4) Schaffer's no-overlap principle. These are all technical notions, but each figures at the heart of a cluster of arguments that Lowe puts forward. To respond, I work through each tranche of argument in turn. Before that, in the first section, I offer a cursory statement of Monism, as Schaffer presents it in his 2010 paper, *Monism: The Priority of the Whole*. I then respond to each of Lowe's criticisms in turn, deploying material from Schaffer's 2009 paper *Spacetime: the One Substance*, as well as various pieces of conceptual machinery from Lowe's own works (*The possibility of metaphysics*. Clarendon, Oxford, 1998, 2010) to deflect Lowe's (*Spinoza on monism*. Palgrave Macmillan, London, pp 92–122, 2012) attacks. In the process of defending Monism from Lowe (*Spinoza on monism*. Palgrave Macmillan, London, pp 92–122, 2012), I end up offering some subtle refinements to Schaffer's (*Philos Rev* 119:131–176, 2010) view and explain how the resulting 'hybrid' view fares in the wider dialectic."

References

Lowe, E. J., "Against Monism", in Philip Goff (ed.), *Spinoza on Monism*, New York: Palgrave Macmillan 2012, 92-122.

106. Thomasson, Amie L. 1999. *Fiction and Metaphysics*. Cambridge: Cambridge University Press.

Chapter 2. *The nature and varieties of existential dependence*, pp. 24-34.

"I have argued that fictional characters are dependent objects, requiring for their very existence such entities as literary works and the creative acts of an author. But they depend on these in different ways — requiring the creative acts of an author only to come into existence, and works of literature to remain in existence — so that it is misleading to simply speak of these indifferently as dependencies. To unravel the details of the status of fictional objects we must step back to examine the concept of existential dependence in general and to delineate carefully the various forms that this relation can take." (p. 24)

(...)

"Fictional characters provide an especially good motivation for drawing out a theory of dependence, because they exhibit many different sorts of dependence on many different sorts of entities, and because indeed the dependencies supporting them are layered, as they are dependent on literary works, which are themselves dependent on other entities. We can now utilize this system of dependence to return to make the earlier understanding of fictional objects more precise and detailed. The details of the theory of dependence also prove pivotal to understanding the place of fictional characters in a general system of categories in Part II. But it must not be forgotten that the phenomenon of dependence is completely general — many other types of entities seem to share each of these types of dependence; in fictional characters they are simply combined in an especially interesting way."

107. Todd, Patrick. 2013. "Soft Facts and Ontological Dependence." *Philosophical Studies* no. 164:829-844.

Abstract: "In the literature on free will, fatalism, and determinism, a distinction is commonly made between temporally intrinsic ('hard') and temporally relational ('soft') facts at times; determinism, for instance, is the thesis that the temporally intrinsic state of the world at some given past time, together with the laws, entails a unique future (relative to that time). Further, it is commonly supposed by incompatibilists that only the 'hard facts' about the past are fixed and beyond our

- control, whereas the ‘soft facts’ about the past needn’t be. A substantial literature arose in connection with this distinction, though no consensus emerged as to the proper way to analyze it. It is time, I believe, to revisit these issues. The central claim of this paper is that the attempts to analyze the hard/soft fact distinction got off on fundamentally the wrong track. The crucial feature of soft facts is that they (in some sense) depend on the future. Following recent work on the notion of dependence, however, I argue that the literature on the soft/hard distinction has failed to capture the sense of dependence at stake. This is because such attempts have tried to capture softness in terms of purely modal notions like entailment and necessitation. As I hope to show, however, such notions cannot capture the sort of asymmetrical dependence relevant to soft facthood. Arguing for this claim is the first goal of this paper. My second goal is to gesture towards what an adequate account of soft facthood will really look like."
108. Tognazzini, Neal A. 2015. "Grounding the Luck Objection." *Australasian Journal of Philosophy* no. 93:127-138.  
Abstract: "Many object to libertarianism by arguing that it manages to solve one problem of luck (the threat of determinism) only by falling prey to another (the threat from indeterminism). According to this objection, there is something freedom undermining about the very circumstances that the libertarian thinks are required for freedom. However, it has proved difficult to articulate precisely what it is about these circumstances that is supposed to undermine freedom—the absence of certain sorts of explanations has perhaps been the most common complaint. In this paper, however, I argue that recent work on the metaphysics of ontological dependence provides the resources for formulating the luck objection in its strongest form."
109. Toner, Patrick. 2011. "Independence accounts of substance and substantial parts." *Philosophical Studies* no. 155:37-43.  
Abstract: "Traditionally, independence accounts of substance have held pride of place. Aristotle, Aquinas, Descartes and Spinoza—among many others—accepted independence accounts in one form or another. The general thrust of such views is that substances are those things that are apt to exist in themselves. In this paper, I argue that several contemporary independence theories of substance—including those of Kit Fine, E.J. Lowe and Michael Gorman—include an *ad hoc* element that renders them unacceptable. I’ll also consider the theories of Hoffman and Rosenkrantz."
110. Tugby, Matthew. 2016. "Universals, Laws, and Governance." *Philosophical Studies* no. 173:1147-1163.  
Abstract: "Proponents of the dispositional theory of properties typically claim that their view is not one that offers a realist, governing conception of laws. My first aim is to show that, contrary to this claim, if one commits to dispositionalism then one does not automatically give up on a robust, realist theory of laws. This is because dispositionalism can readily be developed within a Platonic framework of universals.  
Second, I argue that there are good reasons for realist dispositionalists to favour a Platonic view. This is because the alternative Aristotelian version of dispositionalism, on which universals are immanent entities, is unstable for various reasons.  
My final aim is to address a common criticism facing Platonic theories of laws, which is the problem of how external entities can play an explanatory role where the world’s law-like patterns of behaviour are concerned. I argue that the Platonists’ response to the one over many problem can help to shed light on this matter, and a possible solution is sketched, one which makes use of the notions of essence, constitution and ontological dependence."
111. Wigglesworth, John. 2015. "Set-Theoretic Dependence." *Australasian Journal of Logic* no. 12:259-176.  
Abstract: "In this paper, we explore the idea that sets depend on, or are grounded in, their members. It is said that a set depends on each of its members, and not vice

- versa. Members do not depend on the sets that they belong to. We show that the intuitive modal truth conditions for dependence, given in terms of possible worlds, do not accurately capture asymmetric dependence relations between sets and their members. We extend the modal truth conditions to include impossible worlds and give a more satisfactory account of the dependence of a set on its members. Focusing on the case of singletons, we articulate a logical framework in which to evaluate set-theoretic dependence claims, using a normal first-order modal logic. We show that on this framework the dependence of a singleton on its single members follows from logic alone. However, the converse does not hold."
112. Wilson M, Jessica. 2020. "Essence and Dependence." In *Metaphysics, Meaning, and Modality: Themes from Kit Fine*, edited by Dumitru, Mircea, 283-300. New York: Oxford University Press.  
 "What I aim to do in this paper is threefold. First, I'll substantiate my previous claims concerning Fine's approach to metaphysical theorizing, by attention to his accounts of essence and dependence. Second, I'll raise some specific concerns about the general principles Fine takes to schematically characterize these notions. In particular, I'll argue that Fine's essence-based account of ontological dependence is subject to certain counterexamples. The problem, roughly speaking, is that Fine supposes that an entity's essence makes reference just to what it ontologically depends on, but various cases suggest that an entity's essence can also make reference to what ontologically depends on it. As such, Fine's account of ontological dependence is subject to the same objection he raises against modal accounts of essence and dependence—that is, of being insufficiently general or ecumenical. Third, I'll close by observing that in cases where the target phenomenon admits of highly diverse applications, as is the case with ontological dependence (or the related notion of ground), there is no guarantee that the search for general principles that are both appropriately contentful and appropriately ecumenical will be successful. Even so, the search for such principles is clearly worthwhile; hence whatever the outcome in a given case, in raising to salience the schema-based approach, Fine has here made a lasting contribution." (p. 284)
113. Zhong, Lei. 2021. "Physicalism Without Supervenience." *Philosophical Studies* no. 178:1529-1544.  
 Abstract: "It is widely accepted that supervenience is a minimal commitment of physicalism. In this article, however, I aim to argue that physicalism should be exempted from the supervenience requirement. My arguments rely on a parallel between ontological dependence and causal dependence. Since causal dependence does not require causal determination, ontological dependence should not require ontological determination either. Moreover, my approach has a significant theoretical advantage: if physicalism is not committed to supervenience, then the metaphysical possibility of *zombies*—which is still wide open after all these years—would pose no challenge to physicalism."
114. Zylstra, Justin. 2014. "Dependence and Fundamentality." *Studia Philosophica Estonica* no. 7:5-28.  
 Abstract: "I argue that dependence is neither necessary nor sufficient for relative fundamentality. I then introduce the notion of 'likeness in nature' and provide an account of relative fundamentality in terms of it and the notion of dependence. Finally, I discuss some puzzles that arise in Aristotle's *Categories*, to which the theory developed is applied."