

To appear in *Oxfordbibliographies* [http://www.oxfordbibliographies.com/browse?module_0=obo-9780195396577].

Please note that this is the pre-final-revision version of the paper. Therefore: Please **DO NOT QUOTE!**

Metametaphysics

Anna-Sofia Maurin

University of Gothenburg

TOC

Introduction

General Overviews

Anthologies

Textbooks

Metaontology

Carnap and the Impossibility of Metaphysics

Quine and the Possibility of Metaphysics

Neo-Carnapian Deflationism

Semantic Worries I: Indeterminism and Unrestricted Quantification

Semantic Worries II: Quantifier Variance

Semantic Worries III: Triviality

Neo-Quinean Responses

Quantifier Invariantism

Ontological Pluralism

Metametaphysics

The Ontological Turn

The Goal of Metaphysical Inquiry

Metaphysical Explanation

Truthmaking

Grounding

Metaphysics and Science

INTRODUCTION

Metametaphysics is the study of metaphysics. It asks, of the questions posed by metaphysicians, how they (and their answers) ought to be characterized, if they make any sense, what answers to them can be taken to describe, whether answers to them can even be known, and *how* we can know them (if we can), and so on. Here the topic will be approached via a distinction between “metaontology” and “metametaphysics”, a distinction which, in turn, is assumed to more or less coincide with that of two metametaphilosophical traditions; the so-called “Quinean” and “Aristotelian” traditions. As we shall see, whereas philosophers belonging to the Quinean tradition (whether they be proponents of that tradition – so called “neo-Quineans” – or critics of it – what is here called “neo-Carnapians”) constitute a rather close-knit group, brought together by their belief that whatever questions about the possibility and practice of metaphysics need to be answered, this answer should be sought through a close study of (logically regimented) language and, in particular, of the semantics of the existential quantifier(s). Philosophers belonging to the “Aristotelian” tradition are much more gerrymandered although subgroups belonging to this tradition can be identified in terms of more than their opposition to the basic ideas common to the Quineans. One important such group hold that metaphysics ought to be primarily concerned with spelling out what grounds/constitutes/explains what exists, rather than, as the Quinean would have it, with what exists (period). It is precisely because many who profess to belong to the Aristotelian tradition repudiate the central Quinean idea that metaphysics is primarily concerned with answering the question “Are there Fs?”, that the distinction between Quinean and Aristotelian (meta)metaphysics to a large extent coincides with the distinction between metaontology and metametaphysics (as (meta)ontology is normally understood as the (study of) the study of what there is, whereas (meta)metaphysics is taken to have a wider scope including, apart from questions concerning existence, questions concerning the nature of that which exists, etc.). On the grounds of these distinctions, the present entry is subdivided into two main parts: One which discusses metaontology, primarily as set out in the Quinean tradition, and one which discusses issues in metametaphysics, as these have been debated (at least for the most part) by what may be described as proponents of a primarily Aristotelian tradition. Please keep in mind that, though this way of setting things up is by no means unnatural and has good support in the existing literature, it is nevertheless – and unavoidably – somewhat arbitrary.

GENERAL OVERVIEWS

For up-to-date overviews written by the foremost experts in the field *The Stanford Encyclopedia of Philosophy* is an excellent source. Although it does not as yet include an overview article on the topic of “metametaphysics” so-called, quite a few of its entries deal with issues that arguably belong under that heading. Examples include Khlentzos 2011 and Miller 2012, in which some of the most common challenges put to metaphysical realism are explored, Van Inwagen 2012, which among other things discusses the most central views on the nature and possibility of metaphysics, and Hofweber 2013, which examines the debate on the sense (or nonsense) of existence questions posed in metaphysics. *Philosophy Compass* is also a good source for up-to-date (but more opinionated) introductions to most topics in contemporary analytic philosophy. Papers on matters metametaphysical include Eklund 2006, in which a comprehensive introduction to the specifically metaontological discussion is given,

and Jenkins 2010, in which “ontological realism” as that term is used in the metaontological debate, is critically investigated.

Eklund, Matti. “Metaontology.” *Philosophy Compass* 1.3 (2006): 317-334. [doi: 10.1111/j.1747-9991.2006.00026.x]

Summarizes some of the most central views and arguments in the contemporary debate in metaontology. The focus is mainly on the viability of the Fregean/Quinean approach to ontology, on the one hand, and the plausibility of the skeptical or deflationary critique of ontology, on the other.

Hofweber, Thomas. “*Logic and

Ontology[<http://plato.stanford.edu/archives/spr2013/entries/logic-ontology/>]*.” In *The Stanford Encyclopedia of Philosophy*. Edited by Edward N. Zalta. 2013.

Investigates issues in the intersection of logic and ontology. For a discussion of issues of direct relevance to matters metametaphysical – or metaontological – see esp. section 3.

Jenkins, Carrie. “What is Ontological Realism?” *Philosophy Compass* 5.10 (2010): 880-890. [doi: 10.1111/j.1747-9991.2010.00332.x]

Distinguishes between three senses of ontological realism and argues that only one of these – the sense in which ontological realism amounts to the claim that the facts of ontology are objective – is useful to the contemporary metaontological debate.

Khlentzos, Drew. “*Challenges to Metaphysical

Realism[<http://plato.stanford.edu/archives/spr2011/entries/realism-sem-challenge/>]*.” In *The Stanford Encyclopedia of Philosophy*. Edited by Edward N. Zalta. 2011.

Reviews a number of semantic and epistemological challenges to realism – i.e., the view that the world is as it is independently of how humans take it – which all concern how links can be set up between our beliefs and the mind-independent states they allegedly represent.

Miller, Alexander. “*Realism[<http://plato.stanford.edu/archives/spr2012/entries/realism/>]*.” In *The Stanford Encyclopedia of Philosophy*. Edited by Edward N. Zalta. 2012.

Distinguishes realism understood as a thesis about existence from realism understood as a thesis about independence and then discusses the notion in light of canonical critiques of realism in either guise.

van Inwagen, Peter.

“*Metaphysics[<http://plato.stanford.edu/archives/win2012/entries/metaphysics/>]*.” In *The Stanford Encyclopedia of Philosophy*. Edited by Edward N. Zalta. 2012.

Examines a selection of problems normally classified as metaphysical in order to pinpoint what metaphysical problems have in common. Argues that no common feature can be found. Also examines the view that the metaphysical enterprise is impossible. Especially relevant to the subject-matter of the present entry are sections 4-5.

ANTHOLOGIES

The most comprehensive overview of the contemporary debate in metametaphysics so far published is Chalmers et. al. 2009. Loux and Zimmerman 2003 contains an introduction by Loux and Zimmerman as well as texts by Loux (on realism and anti-realism) and Sosa (on vagueness) that may prove helpful to the student of (some) issues in metametaphysics. For someone approaching the subject-matter with very little previous knowledge of the field, there are anthologies which combine a selection of papers (new and old) of relevance to the topic with first-class state of the art essays written by experts in the field. One good examples of an anthology of this kind is Loux 2001 which features a nice selection of texts on the issue of

realism vs. anti-realism as well as a helpful introduction to the subject by Loux himself. Other examples include Laurence and Macdonald 1998 which includes a helpful introduction, a (not entirely unbiased) state of the art essay by van Inwagen on methodology and ontological commitment, as well as texts by authors such as Haack, Quine, Alston, and Cartwright on that same theme; Manson and Barnard 2012, especially the papers by Thomasson and Roy and Davidson; and Haug, 2013, which lets central actor's in the debate, including Williamson, Thomasson, Lowe, and Wilson, discuss themes having to do with method in metaphysics (and more).

Chalmers, David J., David Manley, and Ryan Wasserman, eds. *Metametaphysics – New Essays On the Foundations of Ontology*. Oxford: Clarendon Press, 2009. [ISBN: 978019954600-8]
Gives a good overview of the debate. A must read. Includes papers by David Manley, Karen Bennett, David Chalmers, Matti Eklund, Kit Fine, Bob Hale and Crispin Wright, John Hawthorne, Eli Hirsch, Thomas Hofweber, Kris McDaniel, Huw Price, Jonathan Schaffer, Ted Sider, Scott Soames, Amie Thomasson, Peter van Inwagen, and Stephen Yablo.

Haug, Matthew, ed. *Philosophical Methodology: The Armchair or the Laboratory?* London: Routledge, 2013. [ISBN: 9780415531320]
See especially part two in which “methods in metaphysics” are discussed by authors such as Amie Thomasson, E. J. Lowe, Jessica Wilson, and Hilary Kornblith.

Laurence, Stephen and Cynthia Macdonald, eds. *Contemporary Readings in the Foundations of Metaphysics*. Oxford: Blackwell Publishers Ltd, 1998. [ISBN: 0631201726]
See especially the introduction by Stephen Laurence and Cynthia Macdonald, titled “Metaphysics and Ontology” (pp. 1-8) and the papers gathered in part one (pp. 9-80) on the topic of “methodology and ontological commitment”, written by Peter van Inwagen, Susan Haack, W. V. O. Quine, William P. Alston, and Richard Cartwright.

Loux, Michael J., ed. *Metaphysics – Contemporary Readings*. London: Routledge, 2001. [ISBN: 0415261090]
See especially part six (pp. 447-539) on realism and anti-realism, with a helpful state-of-the-art essay as well as contributions by Michael Dummett, W. V. O. Quine, Hilary Putnam, and Peter van Inwagen.

Loux, Michael J. and Dean W. Zimmerman, eds. *The Oxford Handbook of Metaphysics*. Oxford: Oxford University Press, 2003. [ISBN: 019825024x]
See especially the introduction by Loux and Zimmermann (pp. 1-7), van Inwagen's paper on existence, ontological commitment, and fictional entities (pp. 131-157), and the papers gathered under the title “Anti-Realism and Vagueness” (pp. 631-715), including texts written by Michael J. Loux, Ernest Sosa and Timothy Williamson.

Manson, Neil A. and Robert W. Barnard, eds. *The Continuum Companion to Metaphysics*. London and New York: Continuum International Publishing Group, 2012. [ISBN: 9780826440617]
See especially Amie Thomasson's paper on “Research Problems and Methods” (pp. 14-45), Gene Witmer's paper on “Naturalism and Physicalism” (pp. 90-120), and Tony Roy and Matthew Davidson's paper on “New Directions in Metaphysics” (pp. 268-291).

TEXTBOOKS

More or less every textbook in metaphysics includes at least one section on matters that are best characterized as “*metametaphysical*”. Examples include Loux 2006 with its helpful

introduction to the nature and history of metaphysics (pp. 1-16) and its excellent overview of the more contemporary metametaphysical debate (pp. 259-295). Another helpful source of information is Tallant 2011 in which among many other things the basic tenets of truthmaker theory are introduced and explained in an easy and accessible manner (pp. 1-16) and in which the “special composition question” – a question which, according to deflationary metametaphysicians is a prime example of a question that gives rise to a “merely verbal” dispute – is discussed in a manner that provides anyone interested in the deflationary critique, the relevant background information she needs (pp. 17-38).

Loux, Michael J. *Metaphysics – A Contemporary Introduction*. New York: Routledge, 2006. [ISBN: 9780415401340]

First published in 1998. This is the book’s 3d edition to which a chapter on causation and a chapter on time have been added. This is a good book to start with for the beginner interested in metaphysics and/or metametaphysics.

Tallant, Jonathan. *Metaphysics – An Introduction*. London and New York: Continuum International Publishing Group, 2011. [ISBN: 9781441104540]

Introduces the subject-matter of metaphysics by setting it in a truthmaker theoretical framework. Suitable for undergraduate students. Each chapter is followed by a selection of questions for further discussion, selected further readings, and mind-maps.

METAONTOLOGY

Metaontology is the study of the study of what there is. Questions about what there is can be understood in many different ways. They can be understood as questions about the (ontological) structure of reality generally, but mostly they have been understood as questions about the existence (or not) of entities belonging to some specific kind. More generally, metaontology has for the most part been concerned with the nature, possibility, viability, and so on of questions of the kind “Are there Fs?” According to the metaontological “folklore” Quine saved metaphysics (or, perhaps rather, ontology) from the grips of Carnap. However, recently, the Carnapian critique of metaphysics – now in a deflationary form, intended to avoid its strong verificationist assumptions – has experienced a sort of revival. For good overviews of the contemporary metaontological debate see Szabó 2003, Manley 2009, Soames 2009, and Eklund 2006 and 2008. In the introduction to a special issue on methods in ontology, Rosenberg 1997 likewise provides the reader with a helpful introduction to some of the most important debates in metaontology.

Eklund, Matti. “Metaontology.” *Philosophy Compass* 1.3 (2006): 317-334. [doi: 10.1111/j.1747-9999.2006.00026.x]

Starts with an introduction with a relatively broad scope, but soon zooms in on a discussion of contemporary deflationary views in metaontology and the Quinean view they oppose. Gives a reductio against what is called ontological pluralism (here: “Quantifier Variantism”) and defends an alternative deflationary view: Maximalism.

Eklund, Matti. “The Picture of Reality as an Amorphous Lump.” In *Contemporary Debates in Metaphysics*. Edited by John Hawthorne, Theodore Sider, and Dean Zimmerman, 382-396. Oxford: Blackwell, 2008. [ISBN: 9781405112291]

Traces the history of deflationism back to William James and Rudolf Carnap, and identifies as its most important current proponents Hilary Putnam and Eli Hirsch. Criticizes their Ontological Pluralism (also called “Quantifier Variantism”) and investigates what might be a more promising form of deflationism.

Manley, David. "Introduction: A Guided Tour of Metametaphysics." *Metametaphysics – New Essays on the Foundations of Ontology*. Edited by David J. Chalmers, David Manley, and Ryan Wasserman, 1-37. Oxford: Clarendon Press, 2009. [ISBN: 9780199546008]

Provides the reader with a helpful introduction to the important Carnap-Quine background to the contemporary metaontological debate, as well as some of its more contemporary themes (including, but not limited to, the claim that ontological debates are merely verbal because we use "there is" in different and mutually incompatible ways).

Rosenberg, Gregg H., ed. "Methods of Ontology." Special issue of *The Electronic Journal of Analytic Philosophy* 5 (1997). <http://ejap.louisiana.edu/EJAP/1997.spring/contents.html>
With an introduction by Rosenberg and contributions by Huw Price (defending neo-Carnapianism), Roger Gibson (on Quine), Jill Dieterle (endorsing framework-dependence), Amie Thomasson (providing a framework for systematizing ontologies), Barry Smith and Achille C. Varzi (on paradoxes about the nature of boundaries), and B. J. Copeland (on real-world ontological applications).

Soames, Scott. "Ontology, Analyticity, and Meaning: the Quine-Carnap Dispute." *Metametaphysics – New Essays on the Foundations of Ontology*. Edited by David J. Chalmers, David Manley, and Ryan Wasserman, 424-443. Oxford: Clarendon Press, 2009. [ISBN: 9780199546008]

A very helpful overview of the historical background to the contemporary metaontological debate. Argues that, if a total Carnapian theory is equivalent to a total Quinean one, then *given holistic verificationism*, Carnap "wins the ontological debate", whereas, if holistic verificationism is dropped, the situation is reversed (p. 442).

Szabó, Zoltán Gendler. "Nominalism." In *The Oxford Handbook of Metaphysics*. Edited by Michael J. Loux and Dean Zimmerman, 11-45. Oxford: Oxford University Press, 2003. [ISBN: 9780199284221]

This is a general survey on nominalism in metaphysics. However, as it spends quite some time discussing questions of ontological commitment in the Quinean tradition it is helpful also to the student of metaontology.

Carnap and the Impossibility of Metaphysics

In his 1932, Carnap argues that metaphysicians distort language in various ways to produce statements that are in fact meaningless because unverifiable. In his 1956[1950], Carnap takes his critique of metaphysics one step further, and argues that even if some "ontological" statements can be evaluated as true or false in a system with clear syntactic and semantic rules (i.e., "internally"), these are trivial in the sense that they cannot be attributed the significance intended by the metaphysicians who use them. If, on the other hand, the statements are understood as claims so-to-speak "about" the frameworks in which evaluable statements can be produced (i.e., if they are understood as "external" to every framework), they are no longer trivial, but now, on the other hand, they are no longer evaluable as true or false. At most they are preferable for pragmatic reasons (or not) which, again, runs counter to the ambitions of the metaphysician who claims them. Therefore, metaphysics – understood as a substantial enterprise concerned with truth-evaluable matters of fact – is impossible. For an in-depth introduction to and overview of the life and work of Carnap, see See Murzi 2001. For important background-information on the so-called Vienna Circle, and on logical empiricism, see Uebel 2012 and Creath 2011, respectively. For an instructive thought-experiment (in which a "well-trained mid-twentieth century American philosopher" wakes up in 2008 after dozing

off in his car in 1950 (the “Car Nap Case”)), formulated with the goal of defending a Carnapian view, see Price 2009.

Carnap, Rudolf. “The Elimination of Metaphysics Through Logical Analysis of Language.” *Erkenntnis* 2 (1932): 60-81.

Discusses how metaphysicians, by introducing terms (like “essence”) with unclear meaning, and by using words and combinations of words in unorthodox ways, end up with claims that are unverifiable, and hence meaningless. Originally published under the title *Überwindung der Metaphysik durch Logische Analyse der Sprache*. Translated into English by Arthur Pap.

Carnap, Rudolf. “Empiricism, Semantics, and Ontology.” In *Meaning and Necessity – A Study in Semantics and Modal Logic*. 205-21. Chicago: University of Chicago Press, 1956.

Argues that even claims that cannot be faulted for unclear or unorthodox word- or syntax-use (see Carnap 1932) nevertheless fail to make (substantial) sense when used by the traditional metaphysician. Distinguishes between internal and external questions, and argues that metaphysical questions, if internal, are trivial, and if external, are unverifiable and, therefore, only pragmatically evaluable. First published 1950.

Creath, Richard. “*Logical

Empiricism[<http://plato.stanford.edu/archives/win2011/entries/logical-empiricism/>].” In *The Stanford Encyclopedia of Philosophy*. Edited by Edward N. Zalta. 2011.

Good overview of logical empiricism, understood as a philosophic movement rather than a set of doctrines. Argues that what united this group was a shared will to find a natural and important role in philosophy for scientific methodology, including logic and mathematics, thereby making philosophy part of the scientific enterprise.

Murzi, Mauro. “*Rudolf Carnap (1891—1970)[<http://www.iep.utm.edu/carnap/>].” In *The Internet Encyclopedia of Philosophy*. Edited by James Fieser and Bradley Dowden. 2001.

Provides a good and accessible overview of the life and work of Rudolf Carnap. Includes a helpful reference list for anyone interested in further studies of everything Carnapian.

Price, Huw. “Metaphysics After Carnap: The Ghost who Walks.” In *Metametaphysics – New Essays on the Foundations of Ontology*, 320-346. Oxford: Clarendon Press, 2009. [ISBN: 9780199546008]

Argues that metaphysics is as dead – or at least as deflated – as Carnap left it (by showing that Quine’s famous criticism of Carnap leaves his anti-metaphysical theses intact). Claims that Quine’s views have been persistently misinterpreted and that Quine, like Carnap, supports a deflationary view of metaphysics and ontology.

Uebel, Thomas. “*Vienna Circle[<http://plato.stanford.edu/archives/sum2012/entries/vienna-circle/>].” In *The Stanford Encyclopedia of Philosophy*. Edited by Edward N. Zalta. 2012.

Entry on the so-called Vienna Circle, of which Carnap was a prominent member. Describes the group’s scientific and radically anti-metaphysical stance, a stance mainly supported by a verificationist criterion of meaning and a broadly logicist conception of mathematics.

Quine and the Possibility of Metaphysics

According to the “folklore” (As recounted by Nay 2012, see also Wilson 2011), after Carnap presented his famous elimination of metaphysics, the subject was by most considered finally dead and buried. Then along came Quine, arguing that the verificationist project rested on

unstable grounds, and that metaphysics was possible after all (see especially Quine 1951 and 1953) . Everyone agreed, and metaphysics was reinstated as a respectable, even a scientific, pursuit. Even though a growing number of philosophers (including Price 2009 (referenced under *Carnap and the Impossibility of Metaphysics*), Soames 2009 (referenced under *Metaontology*), Wilson 2011, and Nay 2012) now argue that this folklore is actually a myth, Quine's views – or, what people have interpreted his views to be – have played, and still play, a very important role in the metaontological debate. According to Quine, more precisely, what matters for establishing the claims of metaphysics is nothing out of the ordinary. Instead, metaphysical truths can be distilled from our everyday knowledge, as this knowledge is refined and improved upon by science, and as this improved upon scientific knowledge is regimented in classical (bivalent) first-order logic with identity. In Quine's famous slogan-form: *To be is to be the value of a variable*. Quine's views have given rise to a huge discussion. His choice of first-order, rather than second-order logic, has been more controversial than his adoption of bivalence. Paraphrase, including the fact that paraphrasing a theory into classical logic imposes extensionality on it, has also been the topic of much critical discussion. And so on. See Geach et. al. 1951, and Church 1958 for examples of the discussion as conducted by some of Quine's contemporaries. See Rayo 2007 on ontological commitment generally. For a good introduction to Quine's life and philosophy see Hylton 2013.

Church, Alonzo. "Ontological Commitment." *Journal of Philosophy*. 55.23 (1958): 1008-1014. Paper presented at the APA symposium, Dec. 27-29 1958. Discusses Quinean ontological commitment in light of the views of Ayer, Pap, and Ryle. Suggests an amended version of the criterion which agrees with Quine's in the case of "ordinary standard systems of logic", but which has a wider application.

Geach, Peter, Alfred J. Ayer and Willard van Orman Quine. "Symposium: On What There Is." *Proceedings of the Aristotelian Society*. Supp. vol. 25 (1951): 125-160. Symposium on Quine's text "On What There Is," first published in 1948, with contributions by Peter Geach and Alfred J. Ayer, and a response by Quine himself.

Hylton, Peter. "*Willard van Orman Quine[<http://plato.stanford.edu/archives/spr2013/entries/quine/>]*." In *The Stanford Encyclopedia of Philosophy*. Edited by Edward N. Zalta. 2013. Gives a good overview of Quine's philosophy. See especially section five in which Quine's "naturalization" of metaphysics with the help of logically regimented theory is set out and explained in an accessible manner.

Ney, Alyssa. "Neo-Positivist Metaphysics." *Philosophical Studies*. 160.1 (2012): 53-78. [doi: 10.1007/s11098-012-9912-9] Paper defending a "neo-positivist" metaphysics which is basically Quinean and which includes a limited role for armchair philosophy. For Ney's description of how Quine supposedly saved metaphysics from Carnap, including her reasons for thinking that this description is really a myth, see pp. 57-60.

Quine, Willard van Orman. "On Carnap's Views on Ontology." *Philosophical Studies*. 2.5 (1951): 65-72. [doi: 10.1007/BF02199422] Reprinted in *The Ways of Paradox* 1966. Argues that Carnap's 1956[1950] distinction between internal and external questions is grounded in that between category- and subclass questions, a distinction that is "of little concern". Instead, all the work in Carnap's argument is done by the analytic-synthetic distinction, which Quine famously rejects.

Quine, Willard van Orman. "On What There Is." In *From a Logical Point of View: Nine Logico-Philosophical Essays*, 1-19. Cambridge: Harvard University Press, 1953 [2nd edition 1961]. [ISBN: 978-0674323513]

First published in 1948. In this paper, Quine's ideas on ontological commitment, paraphrase, and ontology as a part of natural science, are all set out. The paper ends with some rather pragmatist words on "theory-choice" that would appear to make Quine's views somewhat more similar to the Carnapian ones, contrary to the "folklore".

Rayo, Agustín. "Ontological Commitment." *Philosophy Compass*. 2.3 (2007): 428-444. [doi: 10.1111/j.1747-9991.2007.00080.x]

Paper which offers an overview of debates concerning the notion of an ontological commitment. Rayo uses Quine's criterion as a point of departure for an elucidation of the notion, an assessment of its adequacy, and a discussion of its significance.

Wilson, Jessica. "Much Ado About 'Something'." *Analysis* 71.1 (2011): 172-188. [doi: 10.1093/analys/anq087]

Critical notice on Chalmers et. al. (2009) (referenced under *Anthologies*). Among other things, Wilson here sets out and criticizes the story of how Quine saved metaphysics from Carnap. Argues that Carnap's pessimism about metaphysics is epistemological – and that Quine's critique of Carnap, therefore misses its mark.

Neo-Carnapian Deflationism

Since its inception in the 1950ies, "Quinean" ontology has dominated the discussion. In spite of this, rather few of the participants in the recently revived metaontological and metametaphysical debate have been explicit defenders of "Quineanism" (van Inwagen 1991, 1998, 2009 is one clear exception to that rule). Instead, the metaontological discussion has seen a strong return of Carnapian, which means relatively speaking anti-metaphysical, ideas. What these critical voices have in common is a will to retain some of the Carnapian insights without having to accept the verificationist grounds on which they rest, and without having to reject Quine's ideas about the central role played in ontology by (existential) quantification. The results are views according to which, although metaphysical reasoning, properly regimented (in a neo-Quinean way) is not impossible, it is either merely verbal, trivial, or, in general, hopelessly uninteresting. See Eklund 2009, Chalmers 2009, and Cameron 2010 for good introductions to the deflationary – "neo-Carnapian" – critique. This critique may be subdivided into objections of at least two kinds: one according to which ontological reasoning, understood in Quinean terms, is defective because of some problem to do with the semantics of the existential quantifier (see *Semantic Worries I* and *Semantic Worries II*), and one according to which it is insubstantial, or too easy, and hence uninteresting (see *Semantic Worries III*).

Eklund, Matti. "Carnap and Ontological Pluralism." In *Metametaphysics – New Essays on the Foundations of Ontology*. Edited by David J. Chalmers, David Manley, and Ryan Wasserman, 77-129. Oxford: Clarendon Press, 2009. [ISBN: 9780199546008]

Discusses Carnap's 1956[1950] view interpreted in "neo-Carnapian" terms as the view that there is more than one sense of the quantifier, none of which is privileged (a view Eklund calls "Ontological pluralism", but which is more commonly known under the name "Quantifier Variantism"). Ontological pluralism is then criticized.

Cameron, Ross. "Review of *Metametaphysics*." *Mind* 119.474 (2010): 459-462. [doi: 10.1093/mind/fzq005]

Review of Chalmers 2009 (see *Anthologies*). Distinguishes between three kinds of metaphysicians: "anti-ontologists" (ontology is somehow defective), "Quineans" (ontology is possible and concerns (quantificational) existence), and "Revisionary ontologists" (ontology is possible but does not concern (quantificational) existence (at least not primarily)).

Chalmers, David J. "Ontological Anti-Realism." In *Metametaphysics – New Essays on the Foundations of Ontology*. Edited by David J. Chalmers, David Manley, and Ryan Wasserman, 130-156. Oxford: Clarendon Press, 2009. [ISBN: 9780199546008]

Distinguishes between metametaphysical anti-realists, lightweight realists, and heavyweight realists. Counts himself as one of the anti-realists. The paper's first part is devoted to doing some "logical geography", examining the language used to state ontological claims. In its second half, Chalmers' anti-realism is fleshed out and defended.

van Inwagen, Peter. "Searle on Ontological Commitment." In *John Searle and His Critics*. Edited by Ernest Lepore and Robert van Gulick, 345-358. Cambridge: Blackwell, 1991. [ISBN: 9780631187028]

Discusses Searle's criticism of Quine's criterion of ontological commitment. Argues that Searle has misunderstood Quine in several important respects, and that his arguments do not refute Quine's real theses on ontological commitment.

van Inwagen, Peter. "Meta-Ontology." *Erkenntnis* 48 (1998): 233-250. [doi: 10.1023/A:1005323618026]

Distinguishes the ontological from the meta-ontological question. Defends a broadly Quinean metaontology, which is then formulated as a fairly short list of five theses, some of which have never been explicitly stated by Quine himself.

van Inwagen, Peter. "Being, Existence, and Ontological Commitment." In *Metametaphysics – New Essays on the Foundations of Ontology*. Edited by David J. Chalmers, David Manley, and Ryan Wasserman, 472-506. Oxford: Clarendon Press, 2009. [ISBN: 9780199546008]

Defends Quineanism from Heideggerian critique by elaborating on the traditional answer to the ontological question – What is there? – in a Quinean way, i.e., by giving an account of quantification.

Semantic Worries I: Indeterminism and Unrestricted Quantification

According to one prominent group of "neo-Carnapian" metaontologists, to be able to understand (and then deflate) ontological theorizing, you must first take a closer look at the semantics of the existential quantifier(s). Most influential among these "semanticists" are the so-called "quantifier variantists", who hold that there is more than one (sense of the) existential quantifier, from which it presumably follows that ontological debates are for the most part merely verbal. For references to this (and the closely related "maximalist") view, see *Semantic Worries II: Quantifier Variance*. A somewhat less influential position, often equated with so-called "metaphysical indeterminism" (a view defended by e.g., Williams and Barnes, see Bennett and Zimmerman 2011), is the view that although the existential quantifier can only mean one thing, this meaning is *indeterminate*, which, again, makes ontological debate futile. For good overviews of this discussion, see Williams 2008 and Barnes 2010. The most prominent critique of the view that the quantifier is indeterminate has been formulated by Sider 2003. According to Sider, if the meaning of the existential quantifier is indeterminate, at least if it is indeterminate in a sense that we can precisify, then, as the best candidate

meaning for 'there exists' is always (and determinately) an *unrestricted* existential quantifier, if one of the candidate quantifier-meanings we arrive at via precisification is more expansive than the other (if it quantifies over more), this is *determinately* a better quantifier for 'there exists', which means that the other precisification was never really a precisification of 'there exists' to begin with. So, 'there exists' determinately means what the first precisification means. So, existence isn't indeterminate. This conclusion is criticized by Barnes 2010. She points out that it is not obvious that the quantifier-precisification with the larger domain should automatically win best candidate-meaning. The best quantifier-meaning is the one that quantifies unrestrictedly, i.e., over everything that exists. According to the quantifier with the bigger domain, \exists_1 , \exists_2 (the other candidate-meaning) is not an *unrestricted* quantifier – precisely because it doesn't quantify over all there is. But, on the other hand, according to \exists_2 , \exists_1 is not even a quantifier, because it specifies as its domain something that doesn't exist. And, there is no fact of the matter as to which is the better quantifier-candidate. See also Rayo and Uzquiano 2006, and Williamson 2003, for a discussion of the many challenges connected with the very idea of *unrestricted* quantification.

Barnes, Elisabeth. "Arguments Against Metaphysical Indeterminacy and Vagueness." *Philosophy Compass* 5.11 (2010): 953-964. [doi: 10.1111/j.1747-9991.2010.00348.x]
Paper which examines some of the major arguments formulated against metaphysical indeterminacy and vagueness. See especially her very helpful discussion of (and objection to) Sider's objection to existential indeterminism (pp. 957-959).

Bennett, Karen and Dean W. Zimmerman, eds. *Oxford Studies in Metaphysics: Volume 6*. Oxford: Oxford University Press. [ISBN: 9780199603046]
This issue features a number of papers of relevance to the topic of metaphysical and ontological indeterminacy, including "A Theory of Metaphysical Indeterminacy" by Elisabeth Barnes and Robert Williams (pp. 103-148), "Being Metaphysically Unsettled" by Matti Eklund (pp. 149-172), and "Metaphysical Indeterminacy and Vague existence" by Richard Woodward (pp. 183-198).

Rayo, Agustín and Gabriel Uzquiano, eds. *Absolute Generality*. Oxford: Oxford University Press, 2006. [ISBN: 9780199276431]
Anthology on "the problem of absolute generality" with a helpful introduction by Rayo and Uzquiano (pp. 1-19) as well as papers by Kit Fine, Michael Glanzberg, Geoffrey Hellman, Shaughan Lavine, Østein Linnebo, Vann McGee, Charles Parsons, Agustín Rayo, Stewart Shapiro and Crispin Wright, Gabriel Uzquiano, Alan Weir, and Timothy Williamson.

Sider, Theodore. "Against Vague Existence." *Philosophical Studies* 114 (2003): 135-146. [doi: 10.1023/A:1024465319036]
Defends the claim that existence is never vague. Argues that vagueness requires precisifications, i.e., it requires that there be different non-vague candidate meanings in the neighborhood of the vague term, but that, in the case of (unrestricted) existential quantification all candidate meanings "collapse" into the one with the largest domain.

Williams, J. Robert, G. "Ontic Vagueness and Metaphysical Indeterminacy." *Philosophy Compass* 3.4 (2008): 763-788. [doi: 10.1111/j.1747-9991.2008.00151.x]
Spells out the meaning and logic of metaphysical indeterminism. Discusses reasons for (and some against) the view. Provides a good introduction to the subject-matter, including a very helpful explanation of the distinction between metaphysical and "ontic" indeterminism (see pp. 767-768).

Williamson, Timothy. "Everything." *Philosophical Perspectives: Language and Philosophical Linguistics* 17 (2003): 415-465. [doi: DOI: 10.1111/j.1520-8583.2003.00017.x]

Asks if there is absolute generality without contextual restrictions. Argues that it might be difficult to state generality-relativism coherently and that generality-relativism is much more disturbing in its implications than what is normally realized. Defends both the necessity and the possibility of the concept of absolutely everything.

Sematic Worries II: Quantifier Variance

According to “Quantifier Variantism” there is no unique ontological language with the help of which the “real” or “most fundamental” structure of reality is revealed. Instead, there are several languages, all of which give a different sense to the existential quantifier (as well as to the other expressions in the language), and in terms of all of which reality may be truly described. One consequence of this is that most ontological disputes turn out to be merely verbal: each disputant asserting truths in his or her own language. The most prominent proponent of Quantifier Variantism is undoubtedly Eli Hirsch 2011. Critics of Hirsch’s views include Hale and Wright 2009, Sider 2009, and Hawthorne 2009. Whether Quantifier Variantism entails a form of anti-realism can be discussed (see Eklund 2009 – referenced under *Neo-Carnapian Deflationism* – for the view that it does). Hirsch is adamant that it does not. In fact, he claims, “only realists count as quantifier variantists” (Hirsch 2011: xvi). Quantifier Variantism should not be confused with “(Quantifier) Maximalism”, a view defended by Eklund 2008. On the maximalist view, for any type of (empirically possible) object, that object exists. Given maximalism, ontological discussion is deflated, not because (most or all) ontological disputes are “merely verbal”, but because “anything goes”. Given maximalism, that is, there is no way in which the stipulated existence of the xs can fail to carve reality at its joints, for reality has no joints to begin with (it is an “amorphous lump”, as Eklund puts it). Quantifier Variantism and Maximalism, it has been argued, can be seen as different ways of interpreting so-called neo-Fregeanism. According to neo-Fregeanism (a view on mathematical existence defended most recently by Hale and Wright 2001), numbers really and mind-independently exist, yet arithmetic knowledge rests on logical knowledge (“logicism” is true). According to Sider 2007 – although, he admits, perhaps not according to the neo-Fregeans themselves – neo-Fregeanism makes best sense if interpreted as a kind of Quantifier Variantism. Hawley 2007 disagrees. At most, she argues, neo-Fregeanism should be understood as a kind of maximalism.

Eklund, Matti. “The Picture of Reality as an Amorphous Lump.” In *Contemporary Debates in Metaphysics*. Edited by Theodore Sider, John Hawthorne, and Dean Zimmerman, 382-396.

Oxford: Blackwell, 2008. [ISBN: 978-1405112291]

Criticizes what Eklund calls “Ontological Pluralism” (which is Eklund’s name for the Hirschian view).

Suggests “Maximalism” as a better deflationary alternative.

Hale, Bob and Crispin Wright. *The Reason’s Proper Study*. Oxford: Oxford University Press, 2001. [ISBN: 9780199266326]

Collection of 15 papers in which Hale and Wright develop their neo-Fregeanism: the view that mathematical knowledge – understood as logical knowledge, broadly construed – is knowledge about mind-independently existing numbers.

Hale, Bob and Crispin Wright. “The Metaontology of Abstraction.” In *Metametaphysics – New Essays on the Foundations of Ontology*. Edited by David J. Chalmers, David Manley, and Ryan Wasserman, 178-212. Oxford: Clarendon Press, 2009. [ISBN: 9780199546008]

Paper which sets out Hale and Wright's neo-Fregeanism (here called "Abstractionism") in some detail, and which discusses Abstractionism's relationship to both Quantifier Variantism and Maximalism.

Hawley, Katherine. "Neo-Fregeanism and Quantifier Variance." *Proceedings of the Aristotelian Society* supplementary volume 81.1 (2007): 233-249. [doi: 10.1111/j.1467-8349.2007.00157.x] Discusses and rejects Sider's suggestion that neo-Fregeanism be interpreted as a kind of Quantifier Variantism. Argues instead that the neo-Fregean, if faced with the choice between interpreting her view as a kind of Quantifier Variantism or as a kind of Maximalism, should choose Maximalism.

Hawthorne, John. "Superficialism in Ontology." In *Metametaphysics – New Essays on the Foundations of Ontology*. Edited by David J. Chalmers, David Manley, and Ryan Wasserman, 213-230. Oxford: Clarendon Press, 2009. [ISBN: 9780199546008] Criticizes the "superficialists" (in particular Hirsch). Argues, among other things, that the philosophical views that motivate the superficialist's grand scale dismissal of contemporary ontology seem hard to justify in a non-self-defeating way.

Hirsch, Eli. *Quantifier Variance and Realism – Essays in Metaontology*. Oxford: Oxford University Press, 2011. [ISBN: 9780199732111] Besides a very helpful introduction, this book includes all of Hirsch's texts on "Quantifier Variantism" published so far, including "Quantifier Variance and Realism", first published 2002, and by Hirsch himself dubbed his most central text on the subject-matter.

Sider, Theodore. "Neo-Fregeanism and Quantifier Variance." *Proceedings of the Aristotelian Society* supplementary volume 81.1 (2007): 201-232. [doi: 10.1111/j.1467-8349.2007.00156.x] Argues that the best way to interpret neo-Fregeanism – although perhaps not an interpretation actual neo-Fregeans will embrace – is as a kind of Quantifier Variantism.

Sider, Theodore. "Ontological Realism." In *Metametaphysics – New Essays on the Foundations of Ontology*. Edited by David J. Chalmers, David Manley, and Ryan Wasserman, 384-423. Oxford: Clarendon Press, 2009. [ISBN: 9780199546008] Introduces the view that there is a privileged sense of the quantifier which carves reality at its joints (see *Neo-Quinean Responses*) via a criticism of various forms of deflationism including, in particular, Hirsch's Quantifier Variantism.

Semantic Worries III: Triviality

Another approach is to argue that if ontological questions are of the kind imagined by Quine and his followers, they are insubstantial, either in the sense that they are "internal" more or less in Carnap's – or at least in some specified "Carnapian" – sense, or in some other sense. That existence questions are in this sense "easy" questions that can be answered without recourse to "deep" metaphysics, has been argued by, among others, Schaffer 2009. According to Schaffer, this is however unproblematic, since the interesting questions in metaphysics are not existence questions but, rather, questions of "what grounds what" (see *The Goal of Metaphysical Inquiry*). See also Hofweber 2005, for a discussion of the distinction between hard and easy questions in ontology and metaphysics. More deflationary still is the "semanticist" view developed by Thomasson in various publications (see Thomasson 2007, 2008, 2009). According to Thomasson, in order to resolve questions of ontology, it is enough if we understand the rules of use for the relevant ontological terms. On this view, then, the truth-value of existence claims can be determined via a kind of semantic ascent which means that ontological controversies can be settled using only empirical investigation and conceptual

analysis. No specifically philosophical – or ontological – investigation is necessary. Thomasson’s views have been criticized. Sider 2009 and Sidelle 2008 object that although it claims to be deflationary and to dissolve traditional ontological debates, we can still see that the semantic approach leaves us committed to substantive ontological positions, and forces us to answer substantive ontological existence questions. To this, Thomasson 2009 responds that her views are not deflationary in the radical sense that e.g. Yablo’s are. According to Yablo 1998 ontological questions are moot – there simply is no fact of the matter about which answer is the right one – and so have *no* answers. But according to Thomasson, existence questions are not moot. Existence questions do have answers. The only claim is that these are answers that are (too) easy to come by.

Hofweber, Thomas. “A Puzzle about Ontology.” *Noûs* 39.2 (2005): 256-283. [doi: 10.1111/j.0029-4624.2005.00501.x]

Defends a “neo-Carnapian” view (but one according to which ontological questions are meaningful and “hard”). Defends a linguistically sophisticated distinction between “loaded” and “unloaded” quantification which can be compared with Carnap’s distinction between internal and external questions.

Schaffer, Jonathan. “On What Grounds What.” In *Metametaphysics – New Essays on the Foundations of Ontology*. Edited by David J. Chalmers, David Manley, and Ryan Wasserman, 347-383. Oxford: Clarendon Press, 2009. [ISBN: 9780199546008]

Defends an Aristotelian approach to metaphysics, given which what is at stake is not the *existence* of e.g., numbers, properties, meanings, or propositions, but the question whether the existence of these entities (which is more or less taken for granted), is *fundamental*.

Sidelle, Alan. “Review of Amie Thomasson’s *Ordinary Objects*.” *Philosophical Quarterly* 58.230 (2008): 172-176. [doi: 10.1111/j.1467-9213.2008.547_1.x]

Sets out the contents of Thomasson 2007 in a clear, concise and accessible way. Discusses Thomasson’s ambition to defend the objects of common sense *without* doing any metaphysics, and argues that this quite simply cannot be done.

Sider, Theodore. “The Deflationary Metaontology of Thomasson’s *Ordinary Objects*.” *Philosophical Books* 50.3 (2009): 142-157. [doi: 10.1111/j.1468-0149.2009.00490.x]

Discusses Thomasson 2007. Expresses sympathies (in principle) with Thomasson’s ontology (which includes ordinary objects) and misgivings with her metaontology (according to which ontological questions are “easy” questions). Argues that Thomasson cannot help but do “deep” ontology.

Thomasson, Amie L. *Ordinary Objects*. New York: Oxford University Press, 2007. [ISBN: 978-0199764440]

Argues for the existence of “ordinary objects” by questioning widely-held views on which metaphysical demands are answerable, and how we should go about answering those that are. Proposes a view on ontology (a metaontology) according to which ontological questions are “easy” questions, which do not need philosophy to be answered.

Thomasson, Amie L. “Existence Questions.” *Philosophical Studies* 141.1 (2008): 63-78. [doi: 10.1007/s11098-008-9263-8]

Argues that thinking of existence questions as “deep” ontological questions is misguided. Instead, such questions are generally rather easily resolved with the help of a combination of conceptual analysis and empirical enquiry.

Thomasson, Amie L. "The Easy Approach to Ontology." *Axiomathes* 19.1 (2009): 1-15. [doi: 10.1007/s10516-008-9057-9]

Sets forth the same view as in Thomasson 2007 and 2008 and responds to various objections that has been formulated against it.

Yablo, Stephen. "Does Ontology Rest on a Mistake?" *Proceedings of the Aristotelian Society* supplementary volume 72.1 (1998): 229 - 61. [doi: 10.1111/1467-8349.00044]

Argues that in order to determine our ontological commitments, we have to ferret out all traces of non-literality in our assertions. However, this cannot be done. Therefore, Quinean ontology cannot be done.

Neo-Quinean Responses

Among those who accept at least the basic tenets of Quineanism (namely, that the important and interesting questions in ontology/metaphysics are existence questions, and that existence questions are answered (if at all) by an investigation into what the existential quantifier(s) of our (logically regimented) best theory pick out), a number of responses to the different forms of neo-Carnapian critique have been suggested. Here two such responses are set out. One according to which, although more than one sense can be given to the existential quantifier, one of these senses is privileged and so able to tell us what there is (*Quantifier Invariantism*) and one according to which the fact that there is more than one sense of the quantifier only means that there is more than one way in which things exist (*Ontological Pluralism*).

Quantifier Invariantism

According to Quantifier Variantism, more than one sense can be given to the existential quantifier, none of which is privileged and, hence, none of which can be said to "really" pick out the ontological structure of reality. According to what we may call the "Quantifier Invariantists", however, this is not true. Yes, there is more than one sense that can be given to the existential quantifier and, hence, more than one language in which reality can be described. However, one of these languages is privileged in the sense that it can be used to "carve reality at its ontological joints." The foremost proponent of this view is Sider 2009, 2011, and 2012 (see also Dorr 2005 for a similar view). According to Sider, using Lewis's 1983 ideas of naturalness as his point of departure, although there is more than one sense that can be given to "exists" and related ontological notions, one of these senses will be intrinsically more natural than the others, and this is the sense in which the existential quantifier manages to pick out the quantificational structure of mind-independent reality (the language of which this quantifier is part, he dubs "ontologese"). Critics of Sider's views include, perhaps most prominently, Hirsch 2008. See Sider 2011 and 2012 for replies to Hirsch's objections.

Dorr, Cian. "What We Disagree about When We Disagree about Ontology." In *Fictionalism in Metaphysics*. Edited by Mark Eli Kalderon, 234-286. Oxford: Oxford University Press, 2005. [ISBN: 9780199282197]

Argues that although one can coherently imagine different communities using different languages in which the meanings of the quantifiers vary, one can still make sense of the idea that of the various possible assignments of meanings to the quantifiers, one is especially fundamental.

Hirsch, Eli. "Language, Ontology, and Structure." *Noûs* 42.3 (2008): 509-528. [doi: 10.1111/j.1468-0068.2008.00689.x]

See especially pp. 519-524. Argues that Sider, in asking which language is aligned to the world's quantificational structure, is trying to stand "both inside and outside language" at the same time (p. 521), which is impossible. Claims, rather, that there is no substantive question about the world's quantificational structure.

Lewis, David. "New Work for a Theory of Universals." *Australasian Journal of Philosophy* 61.4 (1983): 343-377. [doi: 10.1080/00048408312341131]

Introduces the distinction between natural and unnatural (properties), later used by Sider 2011 to distinguish between languages that carve reality at its joints and those that don't (see especially pp. 346ff.)

Sider, Theodore. "Ontological Realism." In *Metametaphysics – New Essays on the Foundations of Ontology*. Edited by David J. Chalmers, David Manley, and Ryan Wasserman, 384-423.

Oxford: Clarendon Press, 2009. [ISBN: 9780199546008]

Instructively sets out the debate between ontological deflationists and ontological realists. Explains how, with the help of what he calls "Lewis's method", we can pick out the language most suitable for "the metaphysics room." Defends his views against different forms of critique.

Sider, Theodore. *Writing the Book of the World*. Oxford: Clarendon Press, 2011. [ISBN: 9780199697908]

Argues, among many other things, that the world has a distinguished structure, a privileged description. Asks what notions carve reality's structure at its joints. Discusses and criticizes deflationary views in metaphysics. See especially, chapters 4-5, 9, and, to a lesser degree, chapters 10-12.

Sider, Theodore. "Hirsch's Attack on Ontologese." *Noûs* (22 June 2012). [doi: 10.1111/j.1468-0068.2012.00868.x]

Argues against one kind of "charity-based" metasemantics (proposed by Hirsch 2008 as an objection to Sider's views) that, if accepted, would make the mere fact of disagreement over ontology preclude the success of the stipulations introducing "ontologese" (i.e., the language fit to describe the quantificational structure of mind-independent reality).

Ontological Pluralism

The so-called Ontological Pluralist (a term coined by Turner 2010, not to be confused with the "ontological pluralism" of which Eklund 2008 speaks (referenced under *Semantic Worries II*)) agrees with the Quantifier Invariantist that there is one (privileged) language which carves reality at its fundamental joints. However, *pace* Quantifier Invariantism, Ontological Pluralism is the view that, because there are different *ways of being* or *existing*, this language will contain more than one existential quantifier. More precisely, the privileged language will contain several existential quantifiers such that each has a restricted and non-overlapping non-empty domain that is likewise included in the domain of the unrestricted quantifier, and such that the meaning of each such quantifier is at least as natural (in the Lewisian sense proposed by Sider 2011, referenced under *Quantifier Invariantism*) as the meaning of the unrestricted quantifier. Ontological pluralism is a post-Quinean invention, albeit one with very prominent roots (for some of its forefathers, see McDaniel 2009 and Caplan 2011). The most important contemporary proponents of Ontological Pluralism are McDaniel 2009, 2010a, 2010b and Turner 2010, 2012. A good overview is given in Spencer 2012. Most objections to ontological pluralism concern the relationship between the unrestricted quantifier and the many restricted quantifiers. One worry (discussed in McDaniel 2009 and Turner 2010, see also Spencer 2012) is that the fact that the unrestricted quantifier has a more inclusive domain

than the restricted ones must mean that it is the *only* privileged quantifier. Another worry has to do with the fact that the unrestricted and the restricted quantifiers appear to be mere notational variants of each other (something which would arguably lead to the collapse of Pluralism into Monism). In response to this, McDaniel 2010a argues that the restricted quantifiers can be regarded as “analogous terms”, which means that we have reason not to equate the disjunction of different (restricted) senses of the quantifier with the one unrestricted sense. Turner 2012 argues that, although the quantifiers undoubtedly *are* notational variants of each other, we have independent reasons for thinking that a language with multiple quantifiers is nevertheless “metaphysically better” than a language with only the one quantifier. See also Van Inwagen’s 1998 argument against ways of being from numbering and numbers (discussed in McDaniel 2009 and Turner 2010).

Caplan, Ben. “Ontological Superpluralism.” *Philosophical Perspectives* 25.1 (2011): 79-114. [doi: 10.1111/j.1520-8583.2011.00209.x]

Argues for “Ontological Superpluralism”, the view that, just as it is preferable to think that there are ways of being over thinking that there is *a* way of being, it is preferable to think that there are ways of being to thinking that there are ways of being.

McDaniel, Kris. “Ways of Being.” In *Metametaphysics – New Essays on the Foundations of Ontology*. Edited by David J. Chalmers, David Manley, and Ryan Wasserman, 290-319. Oxford: Clarendon Press, 2009. [ISBN: 9780199546008]

Introduces Ontological Pluralism as a version of the Heideggerian view. Defends this view against various objections one might want to raise against it.

McDaniel, Kris. “A Return to the Analogy of Being.” *Philosophy and Phenomenological Research* 81.3 (2010a): 688-717. [doi: 10.1111/j.1933-1592.2010.00378.x]

Spells out McDaniel’s understanding of Ontological Pluralism, and claims that on most ways of understanding Ontological Pluralism, “exists” is an analogous term. Argues that this gives us reason to think that Pluralism is not just a notational variant of Monism.

McDaniel, Kris. “Being and Almost Nothingness.” *Noûs* 44.4 (2010b): 628-649. [doi: 10.1111/j.1468-0068.2010.00752.x]

Points out that we appear to be committed to the existence of “almost nothings”, like holes, cracks, and shadows. Argues that this puts the monist in an uncomfortable position. Spells out how Ontological Pluralism can make good sense of our intuitions in this case.

Spencer, Joshua. “Ways of Being.” *Philosophy Compass* 7.12 (2012): 910-918. [doi: 10.1111/j.1747-9991.2012.00527.x]

Very helpful presentation of Ontological Pluralism in its different guises, including most of the arguments for and against it you can find in the literature.

Turner, Jason. “Ontological Pluralism.” *The Journal of Philosophy* 107.1 (2010): 5-34. [doi: 10.5840/jphil201010716]

Paper in which the name “Ontological Pluralism” was first coined. Sets out the view and defends it against various objections (including the objections mentioned in the main-text above).

Turner, Jason. “Logic and Ontological Pluralism.” *Journal of Philosophical Logic* 41.2 (2012): 419-448. [doi: 10.1007/s10992-010-9167-x]

Defends Ontological Pluralism against the objection that it is a mere notational variant of Ontological Monism by, among other things, formulating a logic for Ontological Pluralism.

Van Inwagen, Peter. "Meta-Ontology." *Erkenntnis* 48.2-3 (1998): 233-250. [doi: 10.1023/A:1005323618026]

Paper in which van Inwagen, among many other things, argues that there can be no ways of being because if there were, there would be ways of numbering, which would mean that there would be different kinds of numbers, which would be absurd (see especially pp. 236-237).

METAMETAPHYSICS

Metametaphysics is here understood as the study of metaphysics generally and not just, as in the case of metaontology, as the study of metaphysics understood as the study of what exists or, even more narrowly construed, understood as the study of the semantics of the existential quantifier(s). That metametaphysical issues belonging to this wider category have been and still are, very much discussed (and discussed primarily by proponents of metaphysics) is easily seen. However, as these discussions are for the most part not announced explicitly as discussions in "metametaphysics" they are not easily identified as *discussions in metametaphysics* and have, possibly as a consequence of this, been little acknowledged in the recent resurgence of interest in meta(meta)-issues generally (but see Wilson 2011 and 2013). Apart from a shared conviction among philosophers engaged in metametaphysical debate that there is more to metaphysics than what is assumed by either the neo-Quineans or the neo-Carnapians (or that there is very little to it, but for radically different reasons from those proposed in the metaontological debate (see *Metaphysics and Science?*)), debates in metametaphysics are in general much more gerrymandered than those in meta-ontology and, as a consequence, there are many different ways in which the subject-matter could have been treated. The topics selected for treatment here include, first, an introduction to various aspects of the way of doing metaphysics proposed by proponents of the sometimes so-called "ontological turn" (a revolution back to a largely Aristotelian way of doing metaphysics), including discussions on truthmaking, grounding, and metaphysical explanation. Second, an overview of (relatively recent) debates on the role of (primarily natural) science in metaphysics. Among the topics treated under the heading of "Metametaphysics" belongs also a section on the *tools* that metaphysicians use (or ought to use) when reasoning in a presumably justified way. However, a comprehensive bibliographical overview on this theme can already be found in Cath 2011, to which I therefore direct the reader interested in that particular subject matter.

Cath, Yuri. "Metaphilosophy." In *Oxfordbibliographies in Philosophy*. Edited by Duncan Pritchard. New York: Oxford University Press, 2011. [doi: 10.1093/OBO/9780195396577-0074] Bibliographical entry in which issues relevant to the subject-matter of "Metaphilosophy" are set out. Of relevance to metametaphysics are the sections on *The Method of Cases and Conceptual Analysis*, *Revisionary Accounts*, *Methodological Naturalism* and *Metametaphysics*).

Wilson, Jessica. "Much Ado About 'Something'." *Analysis* 71.1 (2011): 172-188.

Critical notice on Chalmers et al. 2009 (referenced under *Anthologies*) which argues, among other things, that that book, with its clear emphasis on issues in meta-ontology, presents a somewhat distorted picture of the metametaphysical landscape.

Wilson, Jessica. "Three Dogmas of Metaphysical Methodology." In *Philosophical Methodology: The Armchair or the Laboratory?* Edited by Matthew Haug, chapter 11. New York: Routledge, 2013. [ISBN: 9780415531320]

Critically discusses what Wilson believes to be dogmas of metaphysical reasoning – including the dogma that the best way to approach metametaphysical issues is by attention to the semantics of our quantifiers.

The Ontological Turn

Starting in the 60ies and 70ies, a few philosophers, soon to become very well known in the philosophical community, began doing metaphysics in a way that both opposed the Carnapian anti-metaphysics and the Quinean “semanticism”. Most prominent among the revolutionaries was probably Armstrong 1997 (see also Maurin and Brinck 2005 for Armstrong’s own testimony about, among other things, what happened during this “the ontological turn”). Also instrumental to the future development of this brand of metaphysics were, and still are, among others, Lowe 1998, 2008 and Heil 2003, 2012. What, then, characterizes the sometimes so-called “neo-Aristotelian” approach to metaphysics? A few common themes are easily discerned. All proponents of neo-Aristotelian metaphysics, first, think that “[t]alk about talk about the universe is not talk about the universe” (Heil 2012: 3) and that, therefore, the Quinean idea that ontological existence is something that can be ascertained by looking at what we quantify over in our best confirmed theories should be abandoned. In its place, it is also agreed, we should put a view on the nature of metaphysics which is, first of all, not only interested in answering questions of the form “Are there Fs?”, but also questions about the nature of Fs (should they exist), and about various phenomena involving the Fs, such as causation, the space and time they inhabit, and so on. Other theses common to at least most of the neo-Aristotelians is adherence to some kind of Naturalism (loosely, the view that spatiotemporal reality is all there is) as well as a kind of Physicalism (the view that the universe is governed by the laws of physics). Closely related to these theses is a common interest in keeping ones theories “scientifically adequate” without thereby turning metaphysics into physics (see *Metaphysics and Science*). Most proponents of this view also suggest that metaphysics be regarded, at least in part, as an explanatory project, and that truthmaker theory (see *Truthmakers*) or a theory of grounding (see *Grounding*), will provide the neo-Aristotelian with the (metaphysical) explanations she needs. For a number of texts on the history, as well as on the present state, of neo-Aristotelianism (going back as far as to Aristotle himself) see Haaparanta and Koskinen 2012. For a collection of recent systematic texts on themes in neo-Aristotelian metaphysics, see Tahko 2011.

Armstrong, David Malet. *A World of States of Affairs*. Cambridge: Cambridge University Press, 1997. [ISBN: 9780521589482]

Book in which Armstrong’s metaphysical views are nicely summarized. Proposes that naturalism and physicalism is true and that whatever makes true our true propositions is what exists. Argues that the world is a world of states of affairs.

Haaparanta, Leila, and Heikki J. Koskinen, eds. *Categories of Being – Essays on Metaphysics and Logic*. Oxford: Oxford University Press, 2012. [ISBN: 9780199890576]

Anthology treating neo-Aristotelian themes from a predominantly historical perspective. See Keith Campbell’s contribution (Chapter 18: “D. M. Armstrong and the Recovery of Ontology”) for his account of the events during the “ontological turn”.

Heil, John. *From an Ontological Point of View*. Oxford: Oxford University Press, 2003. [ISBN: 9780199286980]

Book in which Heil summarizes his views on the nature of reality. See especially chapter 1 (1-16) in which his views on the nature of metaphysics are defended.

Heil, John. *The Universe As We Find It*. Oxford: Oxford University Press, 2012. [9780199596201]

See especially the first and last chapters in which Lowe, among other things, introduces talk of “the ontological turn” and of what he calls “bottom-up ontology”. Discusses why Heil’s physics-friendly metaphysics does not collapse into the kind of “metaphysics” defended by Ladyman and Ross 2007 (referenced under *Metaphysics and Science*).

Lowe, E. Jonathan. *The Possibility of Metaphysics: Substance, Identity, and Time*. Oxford: Clarendon Press, 1998. [9780198236832]

Sets out Lowe’s views on substance, identity, and time. See especially the first chapter – “The Possibility of Metaphysics” – in which Lowe metametaphysically defends the possibility of metaphysics in the face of various objections to it. Most importantly, Lowe here claims, metaphysics is possible because it is indispensable.

Lowe, E. Jonathan. “New Directions in Metaphysics and Ontology.” *Axiomathes* 18.3 (2008): 273-288. [doi: 10.1007/s10516-008-9048-x]

Sets out Lowe’s views on the nature and prospects of metaphysics. Defends a view of the nature of metaphysics according to which it is (1) the study of the most fundamental structure of reality, (2) the systematic exploration of the bounds of possibility, and (3) the science of essence.

Maurin, Anna-Sofia and Ingar Brinck. “Revisionary Metaphysics: An Interview with D. M. Armstrong.” *Theoria* 71.1 (2005): 3-19. [doi: 10.1111/j.1755-2567.2005.tb01001.x]

Interview with Armstrong conducted when he visited Lund, Sweden in 2004. Relates Armstrong’s views on matters in metametaphysics, dispositional properties, the necessity of predication, the philosophy of mind, epistemology, and the future of philosophy.

Tahko, Tuomas E. *Contemporary Aristotelian Metaphysics*. Cambridge: Cambridge University Press, 2012. [ISBN: 9781107000643]

Recently published anthology on themes in neo-Aristotelian metaphysics including texts by Tuomas E. Tahko, Kit Fine, Tim Crane, Eric T. Ohlson, Gary Rosenkrantz, Alexander Bird, John Heil, Peter Simons, Joshua Hoffman, Louis M. Guenin, Storrs McCall, Kathrin Koslicki, David S. Oderberg, and E. Jonathan Lowe.

The Goal of Metaphysical Inquiry

According to the neo-Aristotelian metaphysician, the goal of metaphysical inquiry is not, or at least not primarily, a list of the world’s existents. It is much more ambitious than that. The goal of metaphysical inquiry, it is supposed, is to reveal the structure of (mind-independent) reality in the sense of saying what *fundamentally* exists, how what fundamentally exists is to be *categorized*, and how it can account for, ground, or (metaphysically) explain everything else there (derivatively) is. In at least one version of the view, moreover, this means that existence questions are treated as trivial questions in the sense that most questions of the form ‘Are there Fs?’ will be answered with ‘Of course there is’. That is, the neo-Aristotelian metaphysician is for the most part not interested in whether or not it is true that ‘There are Fs’ but in what, given that it *is* true, *makes* it true. She is not interested in whether Fs exist, but in whether or not Fs (which (obviously) exist) are fundamental. The foremost forefather of neo-Aristotelianism is, of course, Aristotle (especially *Metaphysics* and *Categories*, see 1984). See

also Heil 2003, 2012 and Lowe 1998, 2008 (referenced under *The Ontological Turn*). A very helpful introduction to neo-Aristotelianism is given in Schaffer 2009, a paper which also includes an in-depth account of how neo-Aristotelianism differs from both the neo-Carnapian and, in particular, the neo-Quinean views.

Aristotle. *The Complete Works of Aristotle: The Revised Oxford Translation* volume 1-2. Edited by Jonathan Barnes. Princeton University Press, 1984. [ISBN: 9780691016504]

See especially *Metaphysics* and *Categories*. In *Metaphysics* 1005a14-17, Aristotle characterizes metaphysics as the examination of “being *qua* being”, and in the *Categories* Aristotle’s notion of substance as a basic, ultimate, fundamental unit of being on which the existence of everything else depends, is formulated.

Schaffer, Jonathan. “On What Grounds What.” In *Metametaphysics: New Essays on the Foundations of Ontology*. Edited by David J. Chalmers, David Manley, and Ryan Wasserman, 347-383. Oxford: Clarendon Press, 2009. [ISBN: 9780199546008]

Indispensable reading for anyone interested in the relationship between “neo-Aristotelian” and “neo-Quinean” metaphysics, as well as in the notion of ‘grounding’.

Metaphysical Explanation

Typical for the neo-Aristotelian is that she tends to regard what she is doing as an *explanatory* enterprise. This can happen in at least one of two ways. First, because neo-Aristotelians often want to associate what they are doing more or less closely with what (natural) scientists, and especially (fundamental) physicists, are doing (see *Metaphysics and Science*) metaphysical theories are sometimes likened with scientific theories (in the sense of models) to be compared and evaluated with reference to the ordinary theoretical virtues including their *explanatory value* (see Paul 2012). On this view, metaphysics is concerned with explanation in a sense that is supposed to be somehow comparable to the sense in which explanations are understood in science in general. Because metaphysical explanations are *non-causal* whereas scientific explanations are causal, this view has been criticized (See Brinck et al. 2011 and Persson 2011). More common, though, is the view that metaphysics is in the business of producing specifically *metaphysical* explanations, not necessarily directly comparable to the explanations used in (empirical) science. Much effort has been spent by proponents of the neo-Aristotelian view trying to pin down this idea of a specifically *metaphysical* explanation. Metaphysical explanations, it has been argued, should be understood either in terms of *truthmaking* (see Smith and Simon 2007 and Liggins 2005, for more on truthmaking see *Truthmaking*) or in terms of grounding (for a critical discussion, see de Rosset forthcoming, for more on grounding see *Grounding*). That metaphysical explanation should be understood in terms of grounding is criticized by Betti, in Weber et al. 2010: 281-316. For a defense of the view that metaphysical explanations should be understood in terms of grounding (rather than in terms of truthmaking) see Schnieder, in Weber et al. 2010: 317-343 (see also Liggins 2012).

Brinck, Ingar et al. “Why Metaphysicians Do Not Explain.” In *Philosophical Papers Dedicated to Kevin Mulligan*. Edited by Anne Reboul. URL: <http://www.philosophie.ch/kevin/festschrift/>, 2011. [ISBN: 978-2-8399-1028-6]

Argues that, although you can of course make ‘explanation’ stand for whatever you like, clarity matters. It is therefore not a good idea to borrow a concept thus imbued with the empirical view of science for use in metaphysical analyses, which are radically different in nature.

deRosset, Louis. "Grounding Explanations." *Philosopher's Imprint* forthcoming. Critically discusses the view that even the sciences make use of not just causal, but also "grounding" explanations, arguing that this suggestion threatens to wrap a mystery into an enigma.

Liggins, David. "Truthmakers and Explanation." In *Truthmakers: The Contemporary Debate*. Edited by Helen Beebe and Julian Dodd, 105-116. Oxford: Clarendon Press, 2005. [ISBN: 9780199283569]

Argues that the take on truthmakers first proposed by Ian McFetridge – who invokes the notion of explanation rather than entailment – can overcome at least some of the problems other versions of the theory will have to face, because explanation is a more discriminating notion than is entailment.

Liggins, David. "Truthmakers and Dependence." In *Metaphysical Grounding: Understanding the Structure of Reality*. Edited by Fabrice Correia and Benjamin Schnieder, 254-272. Cambridge: Cambridge University Press, 2012. [ISBN: 9781107022898]

Argues that various challenges put to truthmaker theory (by among others Schnieder, see his 2010) can be met. But only if the truthmaker theorist can convincingly integrate ideas about grounding, i.e., non-causal dependence, into her theory. Argues that truth's dependence on reality does not entail dependence between reality and propositions.

Paul, Laurie A. "Metaphysics as Modeling: The Handmaiden's Tale." *Philosophical Studies* 160.1 (2012): 1-29. [doi: 0.1007/s11098-012-9906-7]

Argues that metaphysics and science use the same kinds of method to make claims about the world, but with different subjects. Proposes that we think of metaphysical theories as classes of models, and discusses how these models are best evaluated with the help of this scientific-cum-metaphysical method.

Persson, Johannes. "Explanation in Metaphysics?" *Metaphysica* 12.2 (2011): 165-181. [doi: 10.1007/s12133-011-0084-4]

Distinguishes between two kinds of explanatory arguments in metaphysics: arguments from explanatory inability and arguments from the non-metaphysically explained. Critically examines both kinds of arguments and finds them lacking, especially in comparison with analogous arguments found in science.

Smith, Barry and Jonathan Simon. "Truthmaker Explanations." In *Metaphysics and Truthmakers*. Edited by Jean-Maurice Monnoyer. Heusenstamm: Ontos Verlag, 2007. [ISBN: 9783938793329]

Argues against the idea that truthmaker theory is a theory about truth. Claim instead that it is a metaphysical tool with the help of which theories are tested by the viability of the ontological explanations (i.e., truthmakers) they provide.

Weber, Erik, Jan Willem Wieland, and Tim de Mey, eds. "Explanation in Metaphysics." *Logique et Analyse* special issue 53.211 (2010).

Collection of papers on explanation in metaphysics. See especially Arianna Betti, "Explanation in Metaphysics and Bolzano's Theory of Ground and Consequence" (281-316) and Benjamin Schnieder, "A Puzzle About 'Because'" (317-343). Contributions also by Weber, Wieland and de Mey, Correia, and Wieland and Weber.

Truthmaking

Talk of truthmakers dates back at least to the 1950ies and has been a core component of the neo-Aristotelian approach to metaphysics since its inception. For a good overview, see Rodriguez-Pereyra 2006. For influential statements of the theory, see Mulligan et al. 1984 and Armstrong 2004. Monnoyer 2007 and Lowe and Rami 2009 collect texts primarily written by proponents of truthmaker theory, whereas Beebee and Dodd 2005 includes texts written by both friends and foes of the view. According to truthmaker theory, truths are made true by “portions of reality”. More precisely, for any truthmaker p , if p exists some proposition $\langle p \rangle$ must be true. Whether all propositions have truthmakers is debated. Those who say ‘yes’ are the *truthmaker maximalists*, but far from every truthmaker theorist is also a maximalist. According to truthmaker theory, and *pace* its immediate forefather *correspondence theory*, (the logical structure of) language and (the ontological structure of) reality come apart. According to Cameron 2008, and *pace* Quine (see *Quine and the Possibility of Metaphysics*), this means that the truthmaker theorist does not need to resist the literal truth of “there are tables” in order to not have to ontologically commit to tables. According to proponents of neo-Aristotelianism, truthmaker theory is an important tool for metaphysical reasoning. It can be used, among other things, to find out what exists (what are our ontological commitments) by telling us, not what are the values of the existential quantifier, but what *needs* (minimally) to exist for us to be able to account (metaphysically explain) for the truth of our best theory of reality (see Cameron 2008). See also Rodriguez-Pereyra and Hornsby, both published in Beebee and Dodd 2005, for a discussion of the view that there can be truthmaking without truthmakers (a view which, if accepted, would make truthmaker theory unsuited for the task of “ontological-commitment-mining”). Another use often cited for truthmaker theory is that of “catching cheaters” by demanding that plausible truthmakers be provided for whatever claim one accepts. That truthmaker theory can be used to catch cheaters *and* to ground truth in reality is questioned by Beebee and Dodd in Beebee and Dodd 2005 (for a reply, see Liggins 2008).

Armstrong, David Malet. *Truth and Truthmakers*. Cambridge: Cambridge University Press, 2004. [ISBN: 9780521547239]

In this book, Armstrong summarizes and defends his views on truthmaking (views operative in more or less all of his writing before, but also after, Armstrong 2004). He argues, among many other things, that the truthmaking relation is cross-categorical, internal, and necessitating, and that every truth has a truthmaker (maximalism).

Beebee, Helen and Julian Dodd, eds. *Truthmakers: The Contemporary Debate*. Oxford: Clarendon Press, 2005. [ISBN: 9780199283569]

Collection of papers written by both friends and foes of truthmaker theory. See especially Gonzalo Rodriguez-Pereyra (pp. 17-32) and Jennifer Hornsby (pp. 33-48). Also included are papers by Helen Beebee and Julian Dodd, Michael Morris, Joseph Melia, Chris Daly, David Liggins, Fraser McBride, Marian David, and Josh Parsons.

Cameron, Ross P. “Truthmakers and Ontological Commitment: Or How to Deal with Complex Objects and Mathematical Ontology without Getting Into Trouble.” *Philosophical Studies* 140.1 (2008): 1-18. [doi: 10.1007/s11098-008-9223-3]

Highly recommendable as an introduction to truthmaker theory from the perspective both of metaontology and metametaphysics. Discusses ontological commitments from the perspective of truthmaker theory and argues that this approach will help solve problems both with the “special composition question” and with neo-Fregeanism.

Liggins, David. “Truthmakers and the Groundedness of Truth.” *Proceedings of the Aristotelian Society* 108.2 (2008): 177-196. [doi: 10.1111/j.1467-9264.2008.00242.x]

Discusses Beebe and Dodd's 2005 argument to the effect that truthmaker theory could never be justified by the groundedness of truth without losing its cheater-catching power, and argues that it fails. Argues that the groundedness of truth in any case does not support the truthmaker theory, which therefore lacks motivation.

Lowe, E. Jonathan, and Adolf Rami, eds. *Truth and Truth-Making*. Stocksfield: Acumen, 2009. [ISBN: 9780773535558]

Collection of both old and new papers on truthmaker theory, written by Adolf Rami, Kevin Mulligan, Peter Simons, Barry Smith (including Mulligan et al. 1984), Greg Restall, David Lewis, David Armstrong, Marian David, Herbert Hochberg, Paul Horwich, E. J. Lowe, Josh Parsons, and Gonzalo Rodriguez-Pereyra.

Monnoyer, Jean-Maurice, ed. *Metaphysics and Truthmakers*. Heusenstamm: Ontos Verlag, 2007. [ISBN: 9783938793329]

Collection of papers on truthmaker theory that includes texts written by among others Kevin Mulligan, David Armstrong, Herbert Hochberg, and Jonathan Lowe. Especially relevant to matters metaphysical is probably Barry Smith and Jonathan Simon's "Truthmaker Explanations" (referenced under *Metaphysical Explanations*).

Mulligan, Kevin, Peter Simons, and Barry Smith. "Truth-Makers." *Philosophy and Phenomenological Research* 44.3 (1984): 287-321.

A "classic" text on truthmaking in which it is argued that tropes are the world's basic truthmakers. Obligatory reading for anyone interested in the truthmaking.

Rodriguez-Pereyra, Gonzalo. "Truthmakers." *Philosophy Compass* 1.2 (2006): 186-200. [doi: 10.1111/j.1747-9991.2006.00018.x]

Accessible introduction to the main topics of discussion in truthmaker theory, including: the definition of a truthmaker, problems with truthmaker necessitarianism and maximalism, respectively, truthmakers for negative truths, and the supposed ontological burden of truthmaking entities over *ways* the world is.

Grounding

Talk about truth being *grounded* in reality – along with cognate locutions such truths being true *in virtue of* or *because of* or *depending on* (portions of) reality – are common in the literature on truthmaking. In the last few years, however, a growing number of philosophers have started producing a rapidly growing body of literature on what they call 'grounding' (or 'ground'), understood as a notion independent of (or at least more fundamental than), the notion of truthmaking. Influential texts on grounding (and its close relative 'ontological dependence') include Fine 1995 and 2012 (published in Correia and Schnieder 2012), Rosen 2010, and Schaffer 2009. For a good introduction to recent work in the field, see Clark and Liggins 2012. For a general introduction to the notion of 'ontological dependence', see Correia 2008. Work on grounding has at least in part been motivated by what has been perceived as insurmountable problems for the truthmaker theory. Perhaps most importantly, it has been argued, whereas grounding relates existents with existents, thus introducing a kind of hierarchical ordering in reality itself, truthmaking is at most a relation holding between existents and representations of what exists (for an argument against the view that grounding is a relation, see Fine 2012 (published in Correia and Schnieder 2012)). At most, therefore, truthmaking is a necessary condition on grounding in the sense that, if *p* grounds *q*, the fact that *p* makes true the proposition that *q* (Fine, *ibid.*). Another important motivation for the grounding-theorist is the fact that claims of supervenience – which may look like the kind of

claims the grounding theorist is after – at most manage to introduce “fake” ordering in reality. The problem, it is argued, is that supervenience is a symmetric relation. Grounding, on the other hand, is asymmetric and, importantly, explanatory: if x grounds y , then y in virtue of x . Proponents of the notion introduce grounding as unanalysable conceptual rock-bottom, but try to illustrate what it is like by way of examples. This has made some critics think that the notion is unintelligible because improperly introduced. See Hofweber 2009, Bennet 2011, and Daly 2012 (published in Correia and Schnieder 2012) for a critical discussion. See also Audi 2012 (published in Correia and Schnieder 2012) for a defense. In Correia and Schnieder 2012, papers written by the leading figures in the debate are brought together.

Bennett, Karen. “Construction Area (No Hard Hat Required).” *Philosophical Studies* 154 (2011): 79-104. [doi: 10.1007/s11098-011-9703-8]

Argues that so-called ontological ‘building relations’ – including ‘grounding’ – invoked by various philosophers are conceptually intertwined but that it is still an open question whether or not these are all determinates of a common determinable.

Clark, Michael J. and David Liggins. “Recent Work on Grounding.” *Analysis* online first, August 9 (2012): 1-12. [doi: 10.1093/analysis/ans086]

Very helpful introduction to the discussion on grounding. Also a helpful guide to the literature in the field. A good place to start for anyone who wishes to know more about this particular debate.

Correia, Fabrice. “Ontological Dependence.” *Philosophy Compass* 3.5 (2008): 1013-1032. [doi: 10.1111/j.1747-9991.2008.00170.x]

A helpful overview of the different notions of ontological dependence to be found in the literature (including existential dependence, essential dependence, and explanatory dependence). The paper ends with a summary of the main applications of the notion of ontological dependence.

Correia, Fabrice and Benjamin Schnieder, eds. *Metaphysical Grounding: Understanding the Structure of Reality*. Cambridge: Cambridge University Press, 2012. [ISBN: 9781107022898] Collection of papers written by the foremost proponents of grounding. See especially Fine (pp. 37-80), Daly (pp. 81-100), and Audi (pp. 101-121). Also included are papers by Correia and Schnieder, Schaffer, Della Rocca, Williams, Koslicki, Lowe, Azzouni, Liggins, and Barker.

Fine, Kit. “Ontological Dependence.” *Proceedings of the Aristotelian Society* 95 (1995): 269-290.

Paper in which Fine attempts to spell out a notion of ontological dependence of use to metaphysics (both in the sense of a study of *what* there is and in the sense of a study of *whether* there is).

Hofweber, Thomas. “Ambitious, Yet Modest, Metaphysics.” In *Metametaphysics: New Essays on the Foundations of Ontology*. Edited by David J. Chalmers, David Manley, and Ryan Wasserman, 260-289. Oxford: Clarendon Press. [ISBN: 9780199546008]

See especially pp. 270f. for a critical discussion of the notion of grounding which, according to Hofweber, suffers from being unclear and, hence, somewhat mysterious.

Rosen, Gideon. “Metaphysical Dependence: Grounding and Reduction.” In *Modality: Metaphysics, Logic, and Epistemology*. Edited by Bob Hale and Aviv Hoffmann, 109-135. Oxford: Oxford University Press, 2010. [ISBN: 9780199565818]

Defends ‘grounding’ and cognate notions from the charge of being unintelligible by arguing that, with a minimum of regimentation, these notions can be made clear enough to be useful not just as “heuristic tools”.

Schaffer, Jonathan. "On What Grounds What." In *Metametaphysics: New Essays on the Foundations of Ontology*. Edited by David J. Chalmers, David Manley, and Ryan Wasserman, 347-383. Oxford: Clarendon Press, 2009. [ISBN: 9780199546008]

Introduces the notion of 'grounding' both historically (going back to Aristotle, and in contrast with Quine) and systematically. A good place to start for anyone interested in grounding. The paper ends with an argument for Schaffer's preferred metaphysics: so-called priority monism.

Metaphysics and Science

Central to neo-Aristotelianism is the view that science, and especially fundamental physics, should be given a prominent role in metaphysical reasoning. According to Armstrong 1978 we should all be "Scientific Realists", meaning that we should let our best scientific theories tell us what there is, so that metaphysics can then concentrate on the *a priori* task of investigating the (categorical) structure of reality (for more references, see *The Ontological Turn*). According to a growing body of scientifically minded metaphysicians, however, the way neo-Aristotelians traditionally understand both the role and content of science in relation to metaphysics can be criticized. Most radical are those who think that, on the basis of such criticism, metaphysics as traditionally conceived ought to be "discontinued" and replaced by a properly scientific metaphysics. This is the view proposed in Ladyman et al. 2007 (see also Ladyman 2012 and Ney 2012). For, these philosophers claim, the only kind of metaphysics that can contribute to objective knowledge is based on contemporary science *as it is* (that is, *not* as it is according to philosophers' *a priori* intuitions, common sense, or, as it is according to some "domesticated" description of the scientific findings). And, as virtually no account of science given by proponents of the neo-Aristotelian view abides by this rule, the metaphysics they propose should not be taken seriously. Properly scientific metaphysics, it is instead suggested, amounts to nothing more than the enterprise of critically elucidating consilience networks across the sciences (in order to contribute to the unification of the sciences). For a critical discussion, see e.g., Stanford 2010 (a book symposium with contributions by Stanford, Humphreys and Hawley, and with a response by Ladyman). Most philosophers are however less radical in their critique. A good example of a more "moderate" form of criticism is given in Hawley 2006. See also Paul 2012, who defends *a priori* metaphysics by arguing that this way of reasoning does not derive from purely rationalist assumptions, but from the same sorts of principles used in theory-comparison and evaluation generally. For more discussion on the proper role of science in metaphysics, see also the 2012 special issue of *Philosophical Studies* (an issue in which Paul, Ney, and Ladyman, referenced above, among others, are published).

Armstrong, David Malet. *Universals and Scientific Realism* volumes 1-2. Cambridge: Cambridge University Press, 1978.

Very influential two-volume work in which Armstrong defends an ontology of states of affairs, understood as substrates instantiating universals. Here Armstrong also, and for the first time, describes and defends the neo-Aristotelian framework in which his metaphysics is set, including his views on the role of science for metaphysics.

Hawley, Katherine. "Science as a Guide to Metaphysics?" *Synthese* 149 (2006): 451-470. [doi: 10.1007/s11229-005-0569-1]

Paper discussing what would be a reasonable role for science to play in metaphysical reasoning. Argues that the involvement of a metaphysical claim in an empirically successful theory either *never* or *sometimes* gives us reason to believe that it's true, and leans towards the latter option.

Ladyman, James and Don Ross (with David Spurrett and John Collier). *Every Thing Must Go: Metaphysics Naturalized*. Oxford: Oxford University Press, 2007. [ISBN: 9780199573097]
Argues that traditional metaphysics should be discontinued and that in its place we should accept a kind of metaphysics whose goal it is to provide a framework in which the different sciences can as far as possible be unified. Argues that “structural realism” can do just that.

Ladyman, James. “Science, Metaphysics and Method.” *Philosophical Studies* 160.1 (2012): 1-29. [doi: 10.1007/s11098-012-9910-y]
Discusses a defense of *a priori* reasoning – proposed by Paul 2012 – according to which such reasoning is derived from principles governing theory comparison (which are the same for metaphysics and empirical science). Argues that this defense is problematic because of a number of disanalogies between scientific and metaphysical reasoning.

Ney, Alyssa. “Neo-Positivist Metaphysics.” *Philosophical Studies* 160.1 (2012): 53-78. [doi: 10.1007/s11098-012-9912-9]
Paper which argues that to be a neo-positivist metaphysician is to be a kind of “descriptive” metaphysician whose job it is to read off and then systematize the entailments of physics. Claims that it is only because physics is not yet completed that the metaphysician has something to contribute.

Paul, Laurie A. “Metaphysics as Modeling: The Handmaiden’s Tale.” *Philosophical Studies* 160.1 (2012): 1-29. [doi: 10.1007/s11098-012-9906-7]
Paper which argues that metaphysical and scientific methods (but not metaphysical and scientific subject-matters) are more or less the same, and that this fact justifies metaphysical reasoning in a non-rationalist – and hence scientifically adequate - way.

Philosophical Studies. Special issue: Metaphysics and Science. 160.1 (2012). ISSN: 0031-8116 (Print) 1573-0883 (Online).
Collection of papers on metaphysics and science which, apart from contributions by Paul, Ney, and Ladyman (separately referenced), also includes text by Christopher Hitchcock, Peter Godfrey-Smith, Barry Loewer, Rachael Briggs, and Michael Strevens.

Stanford, P. Kyle, et al. “Protecting Rainforest Realism: Book Symposium.” *Metascience* 19 (2010): 161-185. [doi: 10.1007/s11016-010-9323-5]
Book symposium on Ladyman and Ross 2007 with contributions by P. Kyle Stanford, Paul Humphreys, Katherine Hawley, James Ladyman, and Don Ross.