

ONTOLOGY AFTER <mark>CARNAP</mark>

EDITED BY STEPHAN BLATTI & SANDRA LAPOINTE

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Introduction

Stephan Blatti and Sandra Lapointe

Metaphysics incorporates two levels of inquiry: ontology and metaontology.¹ In the first, questions about what exists and about the properties and relations of various existents are posed and answered. The array of entities whose existence and properties are of concern ranges from the more familiar objects of everyday life, such as tables and persons, to the more exotic realms of numbers, fictional characters, propositions, and possible worlds. Given the enormous variety of things concerned, the questions ontologists address often remain highly general. Ontological questions may concern, for example, what exists, what sort of stuff makes up those entities that do exist, in what kinds of relations existents stand with one another, the categories of existents, etc.

Metaontology takes as its subject ontology itself. One may ask how, for instance, are ontological questions to be understood, and what really is at stake in raising and attempting to answer them? Or one may wonder by what standard are we to decide between competing answers to these questions? Or whether there are beliefs, statements, and/or practices that reveal antecedent commitments regarding answers to ontological questions (or antecedent constraints on the range of tenable answers)?

While most, if not all, significant figures in the history of western metaphysics have held at least tacit views concerning these metaontological questions, careful and sustained work in metaontology is a relatively recent phenomenon.² The single most significant episode in the brief history of metaontological inquiry was the mid-twentieth-century debate between the leading exponent of the logical positivist movement, Rudolf Carnap (1891–1970), and the leading critic of that movement, Willard Van Orman Quine (1908–2000).³ The subject of their dispute was the nature

¹ The question of the relation between metaphysics and ontology is not altogether unproblematic. Some of the essays included here (see Koslicki *infra*, Hofweber *infra*, Sidelle *infra*) offer a discussion of these issues.

 $^{^2\,}$ Notwithstanding a few prior instances, regular use of the term 'metaontology' appears to date back no further than Peter van Inwagen's 1998 article titled simply "Meta-ontology," though even he had some reservations about the term's introduction (249 n1). (See also Koslinski *infra.*)

³ Though preceded and succeeded by other relevant publications (see Quine 1951b and 1960, Carnap 1956, Appendix D and Creath 1990), the primary moves in this debate were made in quick succession in Quine's "On What There Is" in 1948, Carnap's "Empiricism, Semantics, and Ontology" in 1950, and Quine's

of ontological commitment and, in particular, whether it is incumbent upon us to accept the existence of abstract entities such as numbers, propositions, classes, properties, and relations. The issue was a contentious one because Platonism-the view that affirms the existence of abstracta⁴—was regarded as an exemplary instance of the sort of misguided metaphysics disavowed by Carnap and Quine alike. Both figures regarded traditional, a priori metaphysical inquiry as ill-conceived nonsense and sought to replace it with a methodologically rigorous alternative. Guiding them in this effort was a second shared commitment on the importance of science for philosophy. Philosophical reflection, both men agreed, cannot be prior to scientific inquiry, but must be a part of it. And yet both men also recognized that numbers were ineliminable in scientific work. This combination of commitments raised important questions. Is it possible to countenance the existence of numbers without thereby accepting Platonism? And if the existence of numbers is admitted, must the existence of other abstract entities (notably, propositions and properties) also be accepted? These were the questions that Quine and Carnap attempted to answerand did answer, albeit quite differently from one another—in their common pursuit of an account of ontological commitment that was at once philosophically rigorous and scientifically acceptable.

The debate was instigated by Quine's 1948 article, 'On What There Is.' According to the criterion of ontological commitment he proposes there, one can use a meaningful term like 'ten'—as in the sentence, 'My dog is ten years old'—without thereby committing oneself to the existence of some entity—the number ten—that is that term's meaning. On the contrary, Quine argues, a speaker incurs a commitment to the existence of some entity if and only if she asserts its existence—just in case, in other words, the speaker says something like "The number ten exists". Ontologically committing assertions will take (or will entail an assertion of) the following form: ' $(\exists x)Fx$ '. This sentence cannot be true unless there *is* at least one entity in the world of which the predicate 'F' is true: some being, b, that makes 'Fx' true when b is assigned as the value of *x*. Such is the meaning of the famous Quinean refrain, "to be is to be the value of a bound variable."

But what provokes Carnap's response is not the criterion itself. Rather it is the charge that Quine levies against Carnap later in the article. "Classical mathematics," Quine says, "is up to its neck in commitments to an ontology of abstract entities." And by "condon[ing] the use of bound variables to refer to abstract entities known and unknown, specifiable and unspecifiable," Carnap himself (along with Frege, Russell, Whitehead, and Church) counts among those who affirm "the Platonic doctrine that universals or abstract entities have being independently of the mind" (1961, 13).

It is in response to this allegation that Carnap publishes "Empiricism, Semantics, and Ontology" in 1950. Carnap's primary objective in this paper was to demonstrate

[&]quot;Two Dogmas of Empiricism" and "On Carnap's Views on Ontology" in 1951. More detailed reviews of this debate (to which this introduction is indebted at points) are given by Carnap himself (1963), Hylton (2007: chs. 2–3), Yablo (1998), Price (2009), Soames (2009), and Ebbs (2011), Hofweber (2011).

⁴ Goodman and Quine 1947.

how reference to abstracta "does not imply embracing a Platonic ontology but is perfectly compatible with empiricism and strictly scientific thinking" (1956, 206). To this end, he contends that questions concerning the existence of entities—be they abstract or the more familiar objects of everyday experience—can be answered only relative to a system of linguistic expressions and semantic rules for "testing, accepting, or rejecting" those expressions (208). Carnap calls these systems "linguistic frameworks."

Further, Carnap distinguishes two ways of understanding an existence question. According to the first, a question of the form "Are there Fs?" is to be understood as asking whether or not the expression 'F' is meaningful in a particular linguistic framework. Carnap calls these "internal questions" because they are asked and answered from within a framework. The answer to such a question is given trivially, simply by determining the truth-value of expressions that imply reference to the entity whose existence is in question. In the case of internal existence questions about non-abstract entities, the answer will be determined "by empirical investigations" (207). For instance, the answer to the question "Is there a unicorn in my backyard?" will be determined by applying a framework's evidentiary rules for the extension of the term 'unicorn'. In our ordinary linguistic framework for "the spatio-temporally ordered system of observable things and events"-what Carnap calls the "thing language"-experiences of the relevant sort in the relevant context are what constitute confirming evidence that the extension of the term 'unicorn' is empty (206–7). If these experiences did in fact occur, the answer to the internal question "Is there a unicorn in my backyard?" would be yes; if not, the answer is no.

But an existence question may be intended differently: "Are there Fs?" may instead ask whether Fs *really* exist, whatever the semantics for 'F' happens to be in one framework or another. Carnap calls these "external questions" because they are posed not from within, but from *outside* any particular linguistic framework. This is how traditional metaphysicians understand ontological questions (which tend to concern the existence of not a particular thing meeting a further condition like "... in my backyard," but a class of things considered in general). Presented with the news that the answer to the question "Are there unicorns?" is no, *but only when that question is considered from within the thing language framework*, the traditional metaphysician will not be satisfied because what she wants to know is not what truth-value that framework happens to assign the statement 'there are unicorns', but whether there *really are* unicorns. "Does the thing language actually correspond to reality?" she will ask.

Carnap's view is that there is no framework-independent, language-neutral fact of the matter as to whether unicorns "really" exist.⁵ The reason is that, understood externally, the question "Are there Fs?" is completely detached from any semantic rules governing the use of 'F' and is therefore unanswerable. As a result, there can be, on Carnap's view, no *factual* resolution of the familiar metaphysical debates between, say

⁵ Whether this implies that Carnap was a "relativist" (or even a "pluralist") and what this would mean is a question we leave open. For a discussion, see Eklund *infra*.

realism and idealism. Consider, as Carnap does, two empirically equivalent frameworks with radically different ontological commitments: one committed to the existence of physical objects of everyday experience (the "thing language"), the other committed only to sense data. Faced with choosing between these linguistic systems, Carnap says, we are guided not by further theoretical considerations, but only by practical ones-only by determining which framework is "more or less expedient, fruitful, conducive to the aim for which the language is intended" (214). So long as they are formalized carefully, these systems of linguistic expressions and semantic rules may be evaluated instrumentally in this way, with pragmatic success or failure determining which ones are retained and used and which are abandoned. Indeed, since their performance will determine whether or not they are retained, and in the absence of further theoretical reasons to prefer one framework over another, we must remain tolerant in permitting a proliferation of frameworks (221).⁶ And since our ontological commitments are intelligible only in the context of a particular linguistic framework, so too must we remain tolerant of conflicting commitments concerning the existence of various kinds of entities.

Carnap's diagnosis of the failure of external questions about observables applies equally to external questions about abstract entities. Unless relativized to and understood within a carefully described linguistic framework, ontological questions like "Do numbers exist?" or "Do properties exist?" are unsolvable and should be abandoned. And just as there is no framework-independent reason to adopt the ontological commitments of the language of things instead of the language of sense-data, so too there is no framework-independent reason to prefer the ontological commitments of the language of mathematical nominalism over the language of Platonism.

Carnap's account of internal existence questions, on the other hand, cannot be the same for non-abstract and abstract entities, since "empirical investigations" cannot (or at any rate, typically do not) help us settle questions concerning the latter. Rather, considered from within a linguistic framework, answers to questions like "Are there numbers?" and "Are there colors" are analytic. That is to say, answers to internal existence questions about abstract entities are given by the semantic rules governing the logical properties of expressions containing references to the kind of abstract entity at issue (208–9). As such, answers to these questions are trivially true, since they follow immediately from other statements within a linguistic framework. Carnap writes: "There are numbers' or, more explicitly, 'There is an *n* such that *n* is a number'... follows from the analytic statement 'five is a number' and is therefore itself analytic." Indeed, no one who has adopted a framework in which 'five is a number' is true would even "seriously consider a negative answer" to the internal question "Are there numbers?" (209). Likewise, affirmative answers to "Is green a color?" and "Are there colors?" follow

⁶ This principle of tolerance for a multiplicity of linguistic frameworks was a commitment of long-standing for Carnap. As he put it in *The Logical Syntax of the World*, for instance, "it is not our business to set up prohibitions, but to arrive at conventions" (1934, 51).

analytically from an affirmative answer to the question "Are these two blades of grass green?" This is not to say, of course, that the *discovery* of answers to internal existence questions about abstracta is trivial. Consider, for instance, the questions "Are there any odd perfect numbers?" and "Are there infinitely many twin primes?" But the same is true about the discovery of answers to internal existence questions about non-abstracta; consider "Are there Higgs bosons?" The difficulty in answering this last question stems not from ascertaining the physics framework's evidentiary rules for the extension of the term 'Higgs boson', but from the difficulties involved in obtaining the confirming or disconfirming evidence itself.

It is because of its reliance on the notion of analyticity that Carnap's internal/external distinction comes under fire in two 1951 articles by Quine: "Two Dogmas of Empiricism" (1951a) and "On Carnap's Views on Ontology" (1951b). In the former, Quine famously argues that no noncircular explanation of analyticity has been given and that the distinction between analytic and synthetic statements is therefore untenable. And having rejected analyticity, Quine thus rejects Carnap's distinction between internal and external questions and with it his view that the truth of statements concerning the existence of abstracta like numbers and properties could be established analytically merely upon the adoption of a linguistic framework. He writes: "if there is no proper distinction between analytic and synthetic, then no basis at all remains for the contrast which Carnap urges between ontological statements and empirical statements of existence" (1951b, 71).

In the decades since their debate, the consensus amongst analytic philosophers has been that Quine won: that his criticisms of analyticity were conclusive, that without this notion Carnap's position was untenable, and that metaphysical inquiry is therefore free to proceed unencumbered by Carnapian misgivings and deflationism. What need is there, then, for a volume such as this? A confluence of two recent trends provides the answer.

First of all, during the past twenty-five years, historical scholarship on the work of Vienna Circle members like Carnap has exploded both in quality and quantity.⁷ This scholarship has emphasized several of the older and deeper motivations that lay behind the views that Carnap advocated in his debate with Quine, and this in turn has provided occasions for philosophers to re-evaluate whether or not Quine's argument against analyticity succeed in undermining (or even in addressing) Carnap's empiricist project. It has been argued, for example, that the debate between Carnap and Quine reflects not a straightforward disagreement about analyticity, but rather a deeper dispute about philosophical method (George 2000), or perhaps just two rival epistemologies (Creath 1991). Alspector-Kelly (2001) argues that Carnap's aim in "Empiricism, Semantics, Ontology" was not, as Quine thought, to avoid any commitment to abstracta, but to demonstrate how empiricism does not imply nominalism. And there

⁷ See, for instance, Coffa 1991, Creath 1990, Friedman 1999, and Soames 2003.

is no shortage of other challenges to various aspects of the standard account of the Quine–Carnap debate.⁸

Yet the aim of this volume is not principally to engage the historical scholarship concerning Carnap's work and his debate with Quine. Rather, it is to validate the important legacy of that work and debate by exploring what insights a Carnapian approach might offer to contemporary work in metaontology. As a result, there would be less demand for this collection of papers were there not—and here is the second trend—a recent resurgence of interest in metaontology.⁹ In this context, while Carnap's anti-metaphysical outlook remains unpopular, philosophers have begun to revisit his arguments and to adapt for contemporary purposes some of the insights they contain. Examples of these efforts include everything from Thomasson's (2007) neo-Carnapian deflationism in ontology to Yablo's (1998) argument that Carnap's internal/external distinction could be more fruitfully understood as the distinction between metaphorical and literal discourse.

Unsurprisingly, what counts as a Carnapian insight is, explicitly or not, at the heart of many of the essays that follow. To a great extent, what one's answer turns out to be depends on what is made of Carnap's distinction between internal and external questions. For Carnap's treatment of ontological questions yields a position which traditional metaphysicians are likely to find onerous. In order to interpret questions of existence as both meaningful and factual, metaphysicians are forced to construe them as *internal* to a linguistic framework and therefore as trivially answered. In order to be in a position to claim any substance for questions of existence, the metaphysician must forego ontology's claim's to be a factual discipline. Metaphysical questions are fruitful and interesting to the extent that they are construed as external and pragmatic; they concern the practical advisability of adopting one framework over another. One consequence of Carnap's approach is thus metaphysical deflationism: the investigation of traditional metaphysical questions is not a genuinely descriptive endeavor since there is no fact of the matter as to which ontology is the correct one. Metaphysical debates are, for this reason, theoretically vacuous.

Some of the essays we include here conceive of what is distinctively Carnapian about their projects as the commitment to metametaphysical deflationism. Others, however, seek to maintain a broadly Carnapian line while rejecting the deflationist implications of Carnap's project. Thomas Hofweber, for one, proposes to reframe Carnap's distinction between internal and external questions so as to avoid the anti-metaphysical conclusion to which Carnap himself was led. As Hofweber sees it, Carnap was right to assume that there are two questions at stake when one asks a question of the form 'Are there Fs?' But on Hofweber's account, both questions the one corresponding to the trivial claim and the other corresponding to the sub-

⁸ See, for instance, Richardson 1997, 2007, Creath 2007, Price 2009, and Ebbs 2011.

⁹ Examples include McGinn 2000, Azzouni 2006, Hawley 2006, Williamson 2007, Chalmers, Manley, and Wasserman 2009, Varzi 2011, and Haug 2013.

stantial claim—are factual. According to Hofweber, the difference between these two questions is attributable to the fact that the quantifiers involved in questions of the form 'Are there Fs?' are polysemous: sentences in which they occur have different readings which correspond to the different functions that quantifiers play in communication. As Hofweber sees it, the need to distinguish between two kinds of existence question is key to ontology, and we have Carnap to thank for this insight.

Robert Kraut concurs with Hofweber in rejecting the deflationist interpretation of Carnap. Kraut accepts that, on Carnap's view, substantial questions of existence ultimately concern the practical advisability of adopting one linguistic framework over another. But according to Kraut, rather than being assimilated to a form of eliminativism or reductionism, Carnap's theory should be construed as the metaphysical counterpart of non-cognitivist theories of morality. As Kraut sees it, Carnap sought neither to eliminate metaphysical questions-a project that, according to Kraut, borders on incoherence-nor to reduce them to practical ones-a strategy Kraut deems implausible-but rather to make them impervious to empiricist epistemological scruples by denying that their content is descriptive in the first place. On this view, metaphysics is a tool that serves to articulate what are in fact pragmatic commitments. What is more, on Kraut's account—and in this he diverges from the more liberal, historical Carnap the kinds of commitments expressed by ontological claims are constrained by a specific pragmatic criterion: the explanatory ineliminability of linguistic frameworks. Kraut defends his account against a number of objections, arguing that, in spite of worries concerning circularity, conservativeness, and the general plausibility of expressivism, his brand of metaphysical non-cognitivism provides a deeper insight into the content of ontological disputes.

In *Meaning and Necessity*, Carnap advocated an intensionalist semantic framework within which the truth of a modal claim follows from "semantical rules ... alone without any reference to extra-linguistic facts" (1947/56, 10). Two decades later, in defending his view that some claims of necessity are true a posteriori, Kripke both challenged the descriptivist theory of meaning that Carnap presupposed and sharply distinguished the notions of necessity and aprioricity that Carnap conflated. But against the apparent upshot that "if Kripke is right...then it seems Carnap must be wrong," Stephen Biggs and Jessica Wilson suggest that, by accepting a form of epistemic two-dimensionalism (Chalmers and Jackson 2001), a contemporary neo-Carnapian can preserve Kripke's insights within a broadly descriptivist, intensionalist semantics of the sort advocated by Carnap. According to the two-dimensionalist view that they commend to neo-Carnapians, necessary a posteriori claims are justified by inferences to the best explanation; surprisingly, these inferences are a priori (if fallibly so). Moreover, Biggs and Wilson argue, the neo-Carnapian who adopts their "abductive two-dimensionalism" must abandon Carnap's metaphysical deflationalism.

One question that arises naturally is whether Carnap's deflationism comes in one piece, or whether it is possible to be selective when adopting his metaontology. In his

contribution, Alan Sidelle considers contemporary deflationist views about the metaphysics of material objects. On the one hand, Sidelle seeks to determine how contemporary deflationism about material objects relates to the views Carnap puts forward in "Empiricism, Semantics and Ontology," and he points to a number of differences. On the other hand, Sidelle raises the question of whether it is coherent to adopt Carnap's position concerning material objects, but to reject it in the case of abstract ones? While Sidelle is inclined to answer affirmatively, he also concludes that "Empiricism, Semantics and Ontology" provides us not so much with an argument for, as with an approach and a type of skeptical challenge that may be compatible with, contemporary deflationism about material objects.

From a historical and exegetical perspective, any attempt at maintaining a broadly Carnapian line while bypassing metaontological deflationism is problematic, and neither Hofweber, Kraut, nor Biggs and Wilson contend that their accounts would have received Carnap's approval. But what of neo-Carnapian deflationism? Here it may be useful to consider Eli Hirsch's three-way distinction between "increasingly problematical degrees of Carnapian tolerance" that disputants in a metaphysical debate may adopt when acknowledging that their disagreement boils down to a choice between alternative linguistic frameworks. First-degree tolerance-which Hirsch defends as "clearly correct"—is illustrated by metaphysical disputes in which each interlocutor can devise a semantics for the other's linguistic framework wherein the disputant's assertions come out true. Two assertions are shown to be truth-conditionally equivalent just in case, in any actual or possible case of utterance, "they express the same unstructured (coarse-grained) proposition." According to his quantifier variantist view (Hirsch 2011), given two truth-conditionally equivalent linguistic frameworks, neither will offer a privileged or superior description of the world, and ontological disputes in which those frameworks are employed will be resolved either "by charity" or "by stipulation." Third-degree tolerance involves verificationism, and notwithstanding Carnap's own attitude to this form of tolerance, Hirsch rejects it as "clearly incorrect." It is with a discussion of an intermediate form of tolerance-the second degree-that Hirsch concludes his essay. Whereas in the first degree, truth-conditional equivalences enable disputants to move back and forth between languages without altering their coarse-grained thoughts, in cases of second-degree tolerance, one goes further "by leaping into new ontological languages that do alter one's coarse-grained thoughts." Unable to define the boundaries of this degree of tolerance with much precision, Hirsch concedes that he is ambivalent about its prospects.

By connecting deflationism with quantifier variance, Hirsch's position raises some important questions, including whether Carnap himself was committed to quantifier variance, and whether quantifier variance is the only viable support for metaphysical deflationism. In her essay, Amie Thomasson gives negative answers to both of these questions and sketches a neo-Carnapian form of deflationism that is meant to bypass standard objections to quantifier variance, verificationism, and anti-realism, with all of which Carnap's project has been associated. Thomasson's position—a form of

ontological minimalism-revolves around the idea that, since the only legitimate uses of terms are governed by the rules of use (including the conditions of application) within a linguistic framework, the only legitimate ontological questions are those that are asked "internally." On her account, then, existence questions have an "easy" answer: if a question concerning the existence of such-and-such entities can be meaningfully stated, namely within a framework, the answer follows from the rules that were used to introduce it in the framework in the first place. Existence claims can thus easily be shown to be true: the concepts they involve come with the conditions for their own application, and whenever the concept applies, we can conclude analytically that the corresponding entity exists. On Thomasson's account, then, debate can arise only if what is at stake is the question whether the relevant terms and rules should be adopted in the first place. Whenever this is the case, the relevant terms are no longer used but merely mentioned, and the answer concerns not a matter of fact but the practical advisability of the adoption of one framework over another. Thomasson argues that the "easy" approach to ontology implies neither that the choice of framework is arbitrary nor that it relegates metaphysicians to idleness. As Thomasson sees it, metaphysicians are, of course, tasked to engage with pragmatic questions concerning conceptual choices. But they are also responsible for the relevant preliminary work that involves both conceptual explication and engineering.

Ontological minimalism, as Thomasson points out, presents its own challenges. In his essay, Simon Evnine argues that this view (also defended by Schiffer) is problematic to the extent that it is unclear how it can, in addition to establishing the existence of the entities in question, also establish that these entities have other properties, including properties essential to what these entities are. If we follow Evnine, the consistency of ontological minimalism is threatened whenever more is supposed to be true of the entities it establishes than what follows from the satisfaction of the existence conditions alone. The problem, according to Evnine, lies with the notion of application conditions. Evnine distinguishes between different ways in which concepts can be said to be applied, and argues that none of these will be satisfactory for the purpose of ontological minimalism. The ontological minimalist thus faces a dilemma. On the one hand, she can maintain the minimalist project. The price of doing so, however, is that the entities whose existence she establishes are both too minimal and different from the entities that are at issue in the metaphysical debate to satisfy the proponents of rival theories. On the other hand, she can resort to substantial metaphysical claims to ensure that the entities whose existence she establishes really have the desired properties. But in doing so, she abandons minimalism and, with it, the idea that we can pursue a deflationist project.

Adjacent to the question of what counts as a Carnapian approach is that of Carnap's legacy. Matti Eklund's essay aims at providing a general appraisal of Carnap's legacy. His discussion, which ranges over the positions of a number of authors included in the present collection (Hofweber, Thomasson, Hirsch, and Creath) thus sets the stage for future debate. Eklund looks first at contemporary treatments of arguably Carnapian themes: the distinction between internal and external questions, analyticity, and verificationism.

Eklund then assesses what Carnap has to say on a number of issues arising in contemporary debates: the idea that ontological dispute are "merely verbal," quantifier variance, and the idea that what makes a meaning "good" is its "naturalness" (i.e., its capacity to "carve nature at its joints"). The conclusion Eklund draws from his discussion is twofold. On the one hand, according to Eklund, the widespread conviction that Carnap's influence on contemporary ontology was substantial is misleading: what Carnap has in mind when he discusses the internal/external dichotomy, analyticity, and the empiricist criterion is either more specific or altogether distinct from what contemporary ontologists—even contemporary ontologists who claim a Carnapian heritage—have in mind. On the other hand, Eklund argues, contemporary discussions of verbal disputes, quantifier variance, and naturalness—to the extent that these are themes that are indeed found in Carnap—are as problematic as Carnap's own discussions were.

Eklund is on the whole a rather unsympathetic critic of Carnap, and some of his other work (e.g., Eklund 2009) shows him committed to a form of metaphysical realism which, as Richard Creath points out, Carnap was at pains to avoid. In his essay, however, Creath argues that historians have everything to gain from taking Eklund's and other arguments seriously, helping them make better sense of what Carnap was doing. Likewise, nonhistorians have much to gain from a better understanding of Carnap. Creath illustrates both points, arguing in the second part of the paper for a neo-Carnapian approach to the treatment of theoretical diversity in metaphysics. As Creath puts it, Carnap's principle of tolerance was a proposal to defuse conflict and reorient discussion, and a better appreciation of Carnap opens the same sort of possibilities for contemporary ontology.

Gregory Lavers' essay-the only one to tackle historical and exegetical questions directly-deals with Carnap's views on the existence of abstract object, as well as with his views on the existence of theoretical objects. According to Lavers, Carnap's treatment of both kinds of entities is subject to an asymmetry that is unmotivated: while Carnap is a realist when it come to abstract entities, his views on theoretical entities are better understood as implying instrumentalism, and Lavers attempts to show why. The first part of his essay explains how Carnap's mature view on numbers-a form of realism-compares with his earlier formalist theory. According to Lavers, Carnap's realism is prompted by the adoption of a Tarskian semantics, a move that Lavers argues was justified for Carnap to the extent that he saw Tarski's treatment of meaning and truth as consistent with his own views on explication. In the second part of the chapter, Lavers shows that Carnap's views on theoretical entities in empirical sciences do not appeal to the same resources. When it comes to answering questions such as "Do theoretical terms refer?" or "Are statement asserting the existence of theoretical entities such as electrons true?," Carnap, rather than relying on Tarskian semantics, offers an alternative theory and consequently sides with instrumentalists. While this alternative approach is consistent with reliance on the Carnap-Ramsey sentence approach to theories for the introduction of terms for theoretical entities, Lavers argues that it is also somewhat awkward and arbitrary.

The book concludes with an essay that raises what may be the biggest challenge to Carnap's conception of ontology. On Carnap's own account, ontology really has no domain, no area of inquiry of its own. But according to Kathrin Koslicki, this view—a source of worry for serious metaphysics—relies on an impoverished conception of ontology. Koslicki argues that, contrary to what Carnap assumes, questions of existence do not exhaust the scope of ontology. In some important cases, metaphysical disputes concern not questions of existence but questions of fundamentality. These questions, Koslicki argues, can be neither dealt with analytically, within a given framework, nor reframed as practical questions; this in turn calls into question the adequacy of Carnap's internal/external dichotomy. Koslicki illustrates the point by considering the disagreement between proponents of two different versions of trope theory as regards trope individua-tion, documenting the fact that this disagreement touches on not the (internal/external) question of the existence of tropes, but rather the question of their fundamentality.¹⁰

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1 Carnap's Big Idea

Thomas Hofweber

1.1 Carnap's Insight

In his essay "Empiricism, Semantics, and Ontology" (Carnap, 1956), Carnap articulated an important insight, his Big Idea. I believe this insight is exactly correct, and has a substantial impact for metaphysics in general and ontology in particular. However, Carnap got it all wrong when he explained why the Big Idea is true, and what consequences we should draw from it. Carnap was rightly criticized for the overall theoretical framework in which he defended his Big Idea, and for how this defense is supposed to work. But the Big Idea still is correct, and with its proper defense we still get substantial, although different, consequences for metaphysics. This paper discusses the Big Idea, why Carnap was wrong in his defense of it, how it is properly defended, and what follows from it.

Carnap's insight concerns the questions we ask when we ask questions in ontology. He puts it nicely as follows:

Are there properties, classes, numbers, propositions? In order to understand more clearly the nature of these and related problems, it is above all necessary to recognize a fundamental distinction between two kinds of questions concerning the existence or reality of entities. (Carnap 1956, 206)

If Carnap were right then this indeed would be significant for a standard way of doing metaphysics. In metaphysics we want to find out what reality is like in a general way. One part of this will be to find out what the things or the stuff are that are part of reality. Another part of metaphysics will be to find out what these things, or this stuff, are like in general ways. Ontology, on this quite standard approach to metaphysics, is the first part of this project, i.e. it is the part of metaphysics build on ontology and go beyond it, but ontology is central to it, and Carnap's Big Idea is most directly tied to ontology. Ontology is generally carried out by asking questions about what there is or what exists. If we want to know whether numbers are part of reality then we need to find the answer to the question whether there are any numbers. This last connection between what there is and what is part of reality is made for good reasons. If there are numbers

then what else could they be than part of reality? And if numbers are part of reality then, of course, there are numbers. The crucial question for ontology so conceived is thus the question what there is. But if Carnap's insight is correct and we "need to recognize a fundamental distinction between two kinds of questions" here then this will affect ontology at the core. We then need to investigate further about these different kinds, what their difference is, which one, if any, is the right one to ask in the project of ontology, how to answered the right one, and so on.

Although in the above quote Carnap connects the question whether there are numbers to the question concerning the existence and reality of numbers, this connection could be disputed. Maybe whether there are numbers, whether numbers exist, and whether numbers are real are three different questions. But leaving these distinctions aside for the moment, we can state Carnap's insight as follows, and label it as Carnap's Big Idea:

(1) **Carnap's Big Idea:** We need to recognize a fundamental distinction between two kinds of questions we can ask when we ask whether there are Fs.

Carnap's Big Idea, if true, would shed light, one way or another, on some of the most puzzling things about metaphysics and ontology, and Carnap was certainly very much aware of this. There are at least two puzzles for which the Big Idea is clearly relevant, and we should consider them now.

First, it is puzzling how the metaphysical question whether there are numbers, and thus whether reality contains, besides, say, ordinary objects, also further thingsmathematical objects like numbers-is connected to mathematical results which imply that there are numbers. Results in number theory generally imply that there are numbers. Euclid's Theorem that there are infinitely many prime numbers implies immediately and obviously that there are infinitely many numbers, and thus that there are numbers. Is the metaphysical question answered by the mathematical result in such a straightforward way? If that were true it certainly wouldn't be as it is intended in the metaphysical projects. There the idea is that we ask a substantial further question that is not a mathematical one, but a distinctly different one. The ontology of numbers is not supposed to be trivial mathematics. But how can that be? One possible answer is tied to Carnap's Big Idea: there are two different questions here. One of them is mathematical and a different one is metaphysical. How that difference is to be drawn, what the metaphysical question comes down to, and how it should be approached, would all depend on how Carnap's Big Idea is worked out. Carnap did it one way, with certain consequences for metaphysics. But I will argue that different and better options are available as well.

Second, Carnap's Big Idea is relevant for the apparently different level of difficulty that is associated with the ontological and ordinary question whether there are numbers. Ontology is not supposed to be trivial, but the question whether there are numbers does seem to be trivial. You can answer it by example: the number one is one of them, the number two is another. There certainly is a prima facie strong plausibility that this answers the question whether there are numbers in some way. That way of asking the question has a trivial affirmative answer, and we don't even need to rely on mathematics to give that answer. We can answer it by example. And we can answer it with trivial arguments, inspired by Frege's example in his (Frege 1884): that Jupiter has four moons implies that the number of moons of Jupiter is four, which implies that there is a number which is the number of moons of Jupiter, and thus that there are numbers. If Carnap's Big Idea is in essence correct then a possibility of understanding this opens up: one question indeed is trivial, while another one is not. Whether or not it comes out this way will depend on how the Big Idea is spelled out, and what the difference between the two questions comes down to. But Carnap's Big Idea gives hope that these generally puzzling features of ontology can be understood somehow.

To evaluate Carnap's Big Idea we should first look at why Carnap thought it was true, and what consequences he drew from it for metaphysics. I will argue that on Carnap's own account, Carnap's Big Idea is incorrect. That is, the background picture in the philosophy of language that Carnap took to establish his Big Idea not only does not establish it, it makes the Big Idea come out false. After that I will outline why Carnap's Big Idea is nonetheless correct and what this means for metaphysics.

1.2 Carnap's Approach to Ontology

In 1947 Rudolf Carnap published a book on the semantics of various languages called Meaning and Necessity. This book, as well as earlier work in semantics by him and others, was a break from the tradition of the logical positivists, of which Carnap was one, to deal with language purely syntactically. The logical positivists were anti-metaphysical philosophers. They held that the grand traditional metaphysical notions like being, truth, and reality, where highly suspicious, the source of confusion and pretentious nonsense, as they took earlier metaphysical philosophies to be. Instead the logical positivists took ideas from the development of formal logic and developed artificial languages to be used by the sciences. These artificial languages where characterized syntactically, with rules of inference, a grammar, and so on. Semantic considerations were considered with great suspicion by logical positivists. After all, they employ such notions as meaning, truth, and reference. And they employ talk about such suspicious entities as properties, extensions, propositions, and other things that do not easily seem to fit into the material world. Carnap, following Tarski in (Tarski 1983), however, realized that a truth predicate for a language can be defined in a language that is slightly stronger in an innocent mathematical sense, and thus can't really be seen as adding dubious metaphysical baggage. Similarly, an at least extensionally adequate notion of reference can simply be defined in a language that is stronger in a metaphysically innocent way. But the issue with meanings, extensions, propositions, and the like is thereby not resolved. These are not just notions suspicious to positivists, they are things that don't seem to be part of the material world, and thus seem to be empirically problematic. So, how can an empiricist and scientific philosopher like Carnap take recourse to

them in the semantic study of language? In 1950 Carnap offered his answer to these objections to his semantic work in his article "Empiricism, semantics, and ontology".¹ And his answer is closely connected to his Big Idea.

Carnap's Big Idea (1) is the idea that there are two kinds of questions about what there is, and he held this for a particular reason, which is relevant for what he thought the significance of the Big Idea is. The two kinds of questions he labeled internal and external questions. To understand the difference for Carnap between internal and external questions about what there is it is important to have his picture of how we come to use a particular language in view. According to Carnap we have a choice in using one language over another when we describe the world of experiences, i.e. what we experience in perception. We have certain sensations, and these sensations can be described in different ways, using different languages, or, as he calls them, frameworks. These languages ideally should be perfectly precise languages, and the relevant non-logical expressions should be tied to experiences in the proper way, and there should be clear inferential connections between expressions in that language. But which language we use in describing experience is up to us: whichever we find most suitable. When we try to understand the world, and propose theories about it, we thus have to do two things: first adopt a language or framework in which to describe the world, and second propose hypotheses about the world stated in that language. Experience can confirm or disconfirm the hypotheses stated in the language, but which language or framework we use is up to us. If things go badly we give up a hypothesis, but if things go really badly, we might give up the framework altogether and move to another one.

Thus when we have a certain language or framework adopted to describe the world as we experience it then we can use this language to make statement and ask questions. "Are there numbers?" is one such question. It is a question formulated in a language that involves number talk, and such number talk should be tied to experiences in the proper way. In particular, some languages will have the feature that certain sentences in them will be true no matter what experiences we may have, for example because these sentences follow from no premises. This will result from how the meanings of the words in these languages are related to experiences, or how certain expressions inferentially relate to others. Some sentences with certain words, i.e. some sentences in a certain language, will be true no matter what. To illustrate this, take the 'numbers language', which contains the natural number words, amongst others. In this language, by stipulation, certain inferential connections between sentences obtain, certain inferential connections between sentences are true 'by virtue of meaning', i.e. they are analytic. These connections allow one to conclude

(2) 6 < 7 < 8

¹ This article first appeared in the *Revue Internationale de Philosophie*, and was reprinted as one of several appendices in the second, 1956, edition of *Meaning and Necessity*. Since the latter is much more accessible it is customary to refer to this reprinting of the article, and so will I: (Carnap 1956).

which is analytic, or

(3) The number of my hands is two.

which follows, given the inferential connections that number words are tied to in the numbers language, form the empirically established

(4) I have two hands.

From (2) I can infer

(5) There is a number between 6 and 8.

and from either (2) or (3) it follows that

(6) There are numbers.

Given that one is talking the number language, with words 'number' and '6' and '8' in them, then sentences (5) and (6) are guaranteed to be true. In particular, (6) follows from an analytical truth as well as from a trivial empirical truth.

Similarly, the question

(7) Are there numbers?

is one stated in the number language. It is guaranteed to have an affirmative answer in the same language, namely (6), or 'Yes' for short. This is the question that the meaning of the words in the sentence (7) determine. It is what Carnap calls the *internal question*, and this question is the one that has 'Yes' guaranteed as its answer.

But Carnap doesn't think things end here. There is also another question that philosophers aim to ask with the same words, which Carnap calls the *external question*. After all, the internal question is trivial, and the answer 'Yes' is guaranteed. The question the philosophers aim to ask is not supposed to be trivial. But what is this other, external, question? Here there is potential for confusion about what Carnap's view is, and some parts of his view can be understood in different ways. In particular, Carnap holds that the external questions do not have "any cognitive content" (Carnap 1956, 209) and it is important to see why he thinks that.

It is not true, according to Carnap, that the sentence (7) has more than one reading, that is, that there is more than one way the sentence can be properly understood. Instead there is something else that philosophers aim to do with uttering that sentence, that is, something other than to ask the internal question. To make this clear, let us distinguish the *question sentence* from the *question act*. The question sentence is just a sentence in question form, i.e. an interrogative sentence, in a particular language, for example, the numbers language in case of (7). The question sentence. Normally a speaker will utter a question sentence and perform an act that is closely tied to the meaning of the question sentence uttered. But that doesn't have to be so. So, normally when I utter

(8) Where is my sandwich?

I am performing a certain act, which is more or less just trying to get some information about the location of my sandwich. Let's call *asking a standard question* the act that is performed by asking a question whose content corresponds to the content of the particular occurrence of the question sentence. In short, *a standard question* is a question act performed by the utterance of an interrogative sentence where the content of the act is the content of the interrogative sentence. If a question sentence has more then one reading then there is more than one standard question that can be asked with an utterance of that sentence. To illustrate, when one asks

(9) Did she hit a man with a wooden leg?

one can ask a standard question by asking about her weapon or by asking about the disability status of her victim. Normally when one utters a question sentence one asks a standard question with it. But one could also perform a different kind of act: maybe a completely different speech act, maybe trying to insult someone, or accuse someone, or something different altogether. When one utters "When is this going to be over?" twenty minutes into a performance of a Wagner opera one generally does not simply try to get information about how long the opera is. What one is doing in such cases depends on all kinds of subtle things, the speaker's intentions, context, and so on, which do not matter to us here in detail. But the distinction between the question sentence, the question act, and asking a standard question, is crucial to understand Carnap's distinction between internal and external questions, as he envisioned it.

Keeping these distinctions in mind we can thus say that what philosophers are doing when they utter (7) can be one of several things, including at least the following.

First, they might simply ask the one and only standard question that, according to Carnap, can be asked with this interrogative sentence. But this doesn't make sense of philosophical activity, since that question, in the case of (7), is completely trivial. And if that were the question, the answer would be immediately clear: Yes, of course there are numbers.

Second, they might aim to perform a different question act than asking the standard question. This non-standard question is supposed to have a different content, one that the philosophers might hope to describe as 'Are numbers real?' or 'Do numbers exist?' However, these sentences, too, have only one reading, and the standard question asked with them is equally trivial. The role that words like 'exists' or 'real' have in the language of which they are part equally allows us to trivially infer that numbers exist and are real. Similarly for more complex candidates for what the content of the external question might be: 'Is number talk true?' or 'Does the number language correspond to reality?' These question sentences express a trivial standard question, and philosophy can't be trying to answer them. For all of them the rules of the number language (augmented with the rules for 'exists,' true', etc.) settle the answer: Yes, of course.

Third the philosopher could aim to ask a different question, one not at all related to the content of the question sentence, in fact, one that is not a factual question, but a practical question. It is a question about which language one should choose in describing the world/our experiences. This practical question is one that can be meaningfully asked, for example, it is the standard question corresponding to the following question sentence:

(10) Should we describe the world in terms of number talk?

This question is meaningful, in the intuitive sense of the word, and it is a charitable way for Carnap to characterize philosophers who insist on asking questions like (7) even though the standard question asked with that sentence is trivial. However, this question can still be seen as lacking cognitive content in a technical sense, since it is a normative question, a question about what we should do. This technical sense of cognitive content relies on a distinction between facts and values, and holds that only statements about facts have cognitive content, while statements about value do not. Such a view is these days generally called non-cognitivism about the normative or evaluative, and it is naturally associated with positivists like Carnap. It is natural to interpret Carnap as holding that external questions lack cognitive content in this sense: they are meaningful questions, but not questions of fact, but rather questions of value, about what we should do.

This last point is worthy of a bit more elaboration. Carnap holds that the external question has no cognitive content, and thus is 'meaningless' in a technical, but not ordinary, sense. This is so not because the sentence uttered in attempts to ask the external question is a meaningless sentence. To the contrary: the sentence uttered in attempts to ask the external question is a perfectly meaningful one. But the one and only standard question that can be asked with this sentence is not the intended question. It simply leads to an act of asking a trivial question. The external question has no cognitive content, since the question act performed with its utterance is to ask a non-standard question, and that question is not a question of fact, but one about what should be done. Both parts of this are important to keep in mind. The latter simply relies on a distinction between factual claims, which have cognitive content, and claims of value, or normative claims, which do not. This is simply what having cognitive content comes down to, on this technical use of the term. And the use of 'meaningless' employed in this content is simply the same as having no cognitive content in this sense. Thus external questions are meaningless and devoid of cognitive content, even though on the intuitive notion of being meaningful they are perfectly meaningful questions about what to do. When asking an external question we utter a perfectly meaningful interrogative sentence in the performance of a question act that asks a question about what to do. The sentence uttered to ask this question is the same sentence used to ask the internal question, but the question acts are different in these cases. The internal question asks the standard question associated with the question sentence uttered. The external question asks a non-standard question, which is a question about what to do, and as such has no cognitive content given this version of a fact-value distinction.

The pragmatic and practical dimension of Carnap's view should be seen as a charitable interpretation of what meaningful activity the philosophers are nonetheless engaged in when they ask question without cognitive content. Carnap proposes that the best way we can make sense of what philosophers are doing, charitably, is to think of them as asking a practical question, as opposed to a trivial theoretical question. There is no domain of facts that metaphysics and ontology are trying to uncover, since the factual questions in the neighborhood of the questions asked in these disciplines are trivial or confused in some way. Still, there is something in the neighborhood of all this which can be done and which is fruitful. It is asking practical questions, ones about what to do. Even if the factual questions are trivial here, there are good questions left, and they might not have a trivial answer. But ontology as a theoretical discipline has to be rejected. What metaphysicians where trying to do is pointless: they where hoping to ask a substantial question of fact, but the only available content for that question is a trivial one: the internal question. Practical questions remain, but ontology, the metaphysical discipline that hopes to ask questions of fact, has to go.²

This is how I think Carnap should be understood. There are many things that can be criticized about Carnap's view, but I will only briefly mention a few here. First, Carnap overstated the freedom we have in choosing a language. Human languages are highly structured as a result of our biological setup. And this is not just true for the syntax of language, but likely also for various general semantic categories. We are born with a general setup for our language, and even after that it is basically impossible to drift away from it.³ Second, the close connection between meaning and experience Carnap relied on is a mistake. Carnap's theory of meaning is too closely tied to a certain verificationist picture in the philosophy of science, and mistakenly ties languages to scientific theories as described in that picture. Third, Carnap's use of analyticity is problematic. Not that one can't make sense of an analytic–synthetic distinction, but it isn't clear that one can make sense of one that allows one to do what Carnap wants it to do. We won't focus on those familiar points in the following, but we will instead look at what Carnap did with Carnap's Big Idea. I think that on Carnap's own view his Big Idea goes sour, but one can do better.

1.3 How Are There Two Questions?

Carnap holds that we need to recognize the difference between two kinds of questions about what there is, or about the existence or reality of certain things: internal and external questions. But in what sense are there two questions on Carnap's account? It seems that there are a number of candidates for distinguishing two questions, but on

² See also Robert Kraut's contribution to this volume, for more on Carnap and non-cognitivism/ expressivism.

³ For a detailed study of this issue when it comes to semantics, see von Fintel and Matthewson (2008). For syntax, this is, of course, Chomsky's big idea.

each of them the number of questions we get is not two, it is either more than two or less than two. We should look at some candidates for in what sense there are two questions.

First, for Carnap there is only one standard question 'Are there numbers?' or 'Are there Fs?' more generally. The question sentence 'Are there numbers?' has, for him, only one reading. On that reading it often gives us a trivial question, in particular when we ask about very general things like numbers or objects. This standard question is the one and only internal question. There is no external question with the same status, for example, a question that is the standard question on a different reading of the question sentence. When it comes to standard questions, in the sense defined in the section above, there is only one, not two.

Second, when we ask how many questions can be asked with 'Are there numbers?' the answer should not be just two, but many more. There is only one standard question, but there are many question acts that can be performed with an utterance of this sentence, that is, many non-standard questions can be asked with such an utterance. Carnap focuses on two of these question acts: the standard question (which is a trivial question) and the practical question whether we should describe the world in terms of the numbers language. Although the standard question has a distinguished status among all question acts that can be performed with an utterance of this interrogative sentence, the question act Carnap labeled 'the external question' does not have such a distinguished status. Let's grant that one can perform this question act by uttering that sentence, since there is a reasonably loose connection between the content of the sentence uttered and the content of the act performed in uttering it. But not only can we use 'Are there numbers?' to ask what we should do, we can use it in many different ways as well. I might ask if there are not just letters available to decorate our mailbox with stickers, but also numbers. Or I might ask whether a certain document includes detailed numerical information, or many, many more. Even when it comes to questions about what we should do, there are other options than simply to ask whether we should employ the numbers language in the description of the world. It would be strange to focus on two questions here in principle, since many non-standard questions can be ask with this sentence. Maybe only two are in fact, or prominently, or commonly asked? This is our next option to consider.

Third, when we wonder what acts are in fact performed with utterances of 'are there numbers?' things look even worse for Carnap. Here it is first doubtful that many people utter that sentence and thereby perform the act of asking the standard question. That certainly seems unlikely outside of philosophical debates at least. But even worse, it is doubtful that inside or outside of philosophical debates anyone ever uses that sentence to ask the external question as Carnap conceives of it. Even nominalists don't hold that we should stop describing the world in terms of number talk. As a practical question it is undisputed that number talk is useful and great. No one in fact questions the usefulness of number talk, no matter how nominalistic their inclinations. Whatever question other than the standard question philosophers are in fact asking when they

continue to ask whether there are numbers is thus not the question whether it is useful to describe the world in the numbers language. That is not a controversial issue. If there is a real controversy about whether there are numbers it is not that one. On a charitable interpretation of the dispute that appears to be a real dispute to many philosophers about whether there are numbers, it is not a dispute about a practical question, in particular the question of the usefulness of number talk.

All this leads me to conclude that whatever was correct about Carnap's Big Idea, it is not what Carnap made of it. If there really are two questions then it isn't the two questions that Carnap thought they were. If Carnap's Big Idea is correct then it must be something else that is going on. But Carnap's Big Idea does seem to be onto something. On the one hand we philosophers all agree that there are infinitely many prime numbers, and thus that there are infinitely many numbers. But on the other hand we want to continue to ask whether or not reality contains such things as numbers, which we also are naturally inclined to ask by asking whether numbers exist, or alternatively, whether there are numbers. This appears to be incoherent, unless, of course, Carnap's Big Idea is correct, and we are indeed asking two different things here when we are asking whether there are numbers. Is there a better way to understand this difference and to defend Carnap's Big Idea?

It might be tempting to simply assert that there is a difference in question about what there is, one being a metaphysical question, the other being a non-metaphysical one, without saying more about what this difference comes down to.4 But this would be unsatisfactory for a variety of reasons. First, it is not clear whether there really are two ways of asking these questions. Sure, it would make more sense of metaphysics as we think of it if there are two ways, but we can't assume that metaphysics makes sense as it is in fact practiced. What metaphysics is supposed to do, and what questions it is supposed to ask is part of the issue that is under discussion here. Second, taking such a distinction as unexplained and as being metaphysical vs. non-metaphysical makes it unclear why we should think that we have these two questions available to be asked in languages like ours. It is hard to believe that the metaphysical-non-metaphysical distinction is somehow built into our language. If it doesn't come from somewhere else, why would it be there in the first place? But if it does come from somewhere else, if we can understand why there are two questions here for reasons not simply tied to a primitive distinction, and if these two questions do help us understand what is going on in metaphysics as a consequence, then we could hope to make real progress. We could then hope to understand how the questions we ask in ontology differ from and are similar to the questions we ask in mathematics and elsewhere, and why what seemed puzzling about the metaphysical questions nonetheless makes sense. To do this we need to see how Carnap's Big Idea is vindicated in a language like ours.

⁴ See, for example, Chalmers (2009), where such a distinction is taken for granted.

1.4 A Non-Carnapian Defense of Carnap's Big Idea

In this section I will argue that there are two questions about what there is since the question sentence 'Are there numbers?' has two different readings. There are thus two standard questions that can be asked with this sentence. These two standard questions correspond, on the one hand, to the trivial question, which is easily answered in mathematics or by example, and, on the other hand, to the substantial question, which is asked in metaphysics. But the reason why there are two standard questions, and why this sentence has two readings, is not tied to metaphysics, but to two functions that quantifiers have in ordinary communication. These two readings correspond to two different needs we have in communication that we use quantifiers to fill.

One thing we do with quantifiers in ordinary communication is to make a claim about all the things in the world, whatever they may be. This is what we do when we say things like

(11) Something is making a weird noise.

Here we simply claim that among all the things there are, there is one, which is making a weird noise. This reading is the one standardly associated with quantifiers. In this use we make a claim about the domain of all objects, and we can thus call it the domain conditions reading. This, however, is not the only reading of quantifiers. Quantifiers are polysemous, they can make more than one contribution to the truth conditions of a sentence in which they occur, and these different readings are not unrelated. On a second reading quantifiers are used for their inferential role, and this we can thus call their inferential role reading. On this reading we want the quantifier to inferentially relate to other sentences in our own language. A good example of this need for quantifiers comes from when we attempt to communicate partial information, that is, when we communicate information that is less complete than it could be in a particular way. To illustrate, suppose you learn about Dick Cheney that he greatly admires Iago from Shakespeare's Othello. This is useful information about what Cheney is like. But when you try to communicate it to others you can't remember who that was again whom Cheney admires. All you remember is that whoever it was, that person is great at intrigue. That information is still pretty good, and you can communicate it by uttering

(12) There is someone whom Cheney greatly admires who is very good at intrigue.

To be able to do this we want from the quantifier in (12) that it has a certain inferential role. The instance (12) with 'Iago' instead of the quantifier is supposed to imply it, and this inference is supposed to be not just with 'Iago', but with any other instance as well. That is to say,

(13) Cheney admires Iago, and Iago is very good at intrigue.

is supposed to imply (12), and so for any other instance. In particular, it is not supposed to matter, for your purposes, whether or not the world contains such an Iago,

whether Iago is real or fictional in this case. All that matters is that the inference according to the schema 'F(t) thus something is F' is valid. The inferential role reading of the quantifiers thus has to make different contributions to the truth conditions of a sentence than the domain conditions reading. I have spelled out the motivations for why we should think there are these readings, how they differ in truth conditions, how they can be understood for quantifiers more generally, and some other related things, in a series of papers including (Hofweber 2000), (Hofweber 2005b), and in particular Chapter 3 of (Hofweber 2016). On this view of quantification, quantifiers are polysemous in that sentences in which they occur have different, but closely related, readings. These readings correspond to different functions that quantifiers have in ordinary communication, and lead to different truth conditions. Suppose this is indeed true. We can then see how it vindicates Carnap's Big Idea.

Suppose that quantifiers in general are polysemous and have a domain conditions reading and an inferential role reading. Then the sentence

(14) There are numbers.

will have two readings, one tied to the inferential role of the quantifier, the other to the domain conditions reading.⁵ Similarly, the question

(15) Are there numbers?

will have two corresponding readings. One of those is trivial. On the inferential role reading (14) is immediately implied by 'Two is a number', just using the inferential behavior of the quantifier. Thus the question (15) can indeed be trivially answered by example on that reading. On the inferential reading of the question (15) it is indeed answered by

(16) Of course there are numbers: two is one, three is another.

However, on the domain conditions reading the question is not trivial. Here an example alone would not do, since more is required than just an instance. What we would need to know is that the instance is a referential or denoting expression, i.e. that it has at least that semantic function, and furthermore that it succeeds in carrying out that function. Similarly, when we ask

(17) Is there someone Cheney admires?

using the quantifier in the domain conditions reading, the answer 'Iago' is not good enough unless Iago is part of the world, one of the things that reality contains. Whether Iago qualifies for that is controversial, and 'Iago' only answers the domain conditions version of the question if that debate goes one way. The inferential role reading of the

⁵ This sentence is generally believed to be a quantificational sentence. On reflection it is not so clear whether this is correct, but it turns out to be correct after all. This is discussed in more detail in Chapter 3 of Hofweber (2016).

general questions about what there is can usually be answered trivially by example, while the domain conditions reading cannot.

The inferential role reading of a quantified statement relates it inferentially to other sentences in one's own language. Its truth conditions thus concern the internal relations among sentences in a language. What is sufficient for a quantified statement like 'Something is F' to be true on the inferential reading is thus that there is a true instance 'F(t)' in one's own language. In contrast, on the domain conditions reading, 'Something is F' is true just in case there is a language external object which is F.⁶ Because of this I find it natural to call the inferential reading the *internal reading* and the domain conditions reading the *external reading*. And just as on Carnap's account, the internal reading for general questions like 'Are there numbers?' is usually trivial, while the external reading is not trivial.⁷ But this is almost where the similarities end.

Contrary to Carnap, on the outlined alternative understanding of why there are two questions, both questions have exactly the same status. It is not that one is endowed with cognitive value while the other is not. To the contrary, both are purely factual questions of the same kind. They are simply based on two different readings of an expression that occurs in them. The domain conditions and the inferential reading give two different truth conditions of the same sentence, but are not different in status otherwise. Both have cognitive content, both are equally descriptive, factive, etc.

On this account we can also distinguish internal from external questions about what there is. But now these two questions are simply the two standard questions asked with utterances of the sentence 'Are there Fs?' on its internal, inferential role reading and its external, domain conditions reading, respectively. Since the sentence has two, and as far as I can tell only two, readings, there are two, and only two, standard questions that can be asked with it. This way of understanding the difference between internal and external questions leads to there being a clear sense in which there are two questions, not one or many more. But what matters, of course, is not just how many questions there are, but what follows from all this for ontology, metaphysics, and philosophy.

1.5 Carnap's Big Idea and the Ambitions of Metaphysics

Carnap held that metaphysics is to be rejected as part of inquiry, that is, part of the project of finding out what reality is like, or what facts obtain. For the case of ontology this rejection was closely tied to his Big Idea. Ontology, the metaphysical discipline, can't be charitably understood as trying to ask the internal question about what there is, since that question, on his understanding of it, was completely trivial for many of

⁶ On the relationship between these two readings of quantifiers and the objectual vs. substitutional interpretation of quantifiers, see Hofweber (2000) and especially Chapter 3 of Hofweber (2016).

⁷ For a discussion of various ways to defend a distinction between internal and external questions, see also Section 8.1 of Matti Eklund's essay in this collection (Eklund 2015).

the heavily debated cases. Thus some other question must be intended as the question asked in ontology. However, there is no other plausible candidate for a question of fact that is being asked with an utterance of the question sentence used in the internal question. The only charitable way of understanding ontology is thus for it not to ask questions of fact, but questions about what to do. The latter questions are not part of inquiry, however, and so neither is ontology on the most compelling way of understanding it. The questions asked in ontology, according to Carnap, are to be rejected in one sense, but to be embraced in another. They are to be rejected as being part of inquiry and as a discipline that asks questions of fact, since the external question ask about what to do, not what is the case. But the external question is a perfectly good practical question. The practical question is not to be rejected, but to be asked and taken seriously. But it doesn't deserve the name of 'ontology' as it is commonly understood, that is, as being part of inquiry. Carnap's version of a distinction between internal and external questions is thus anti-metaphysical in its upshot. There is no question of fact for ontology to answer, and since that is what ontology hoped to do, it is based on a mistake. But things look quite differently on the other version of an internal-external distinction outlined and endorsed above.

If internal and external questions are just the standard questions asked with utterances of the same sentence on two different readings along the lines specified above, then both of them are questions of fact. One of them will be trivial for general cases like the ones traditionally asked in ontology: Are there numbers, objects, properties, etc.? These questions can all be answered affirmatively by example. But all this leaves the answer to the second, external reading of the same question open. The question whether there are numbers, on the external reading, is not trivial, and it is not at all clear what the answer is. It also isn't clear whether this question is the right question to be asked in ontology, as it is traditionally understood, since it isn't clear whether this question should be addressed in metaphysics, as opposed to, say, mathematics. It is a candidate for being the question asked in ontology, but is it the right candidate? It certainly is a natural candidate, since it asks whether among all the things there are numbers, that is, whether numbers are part of the domain of things. But whether this question should be seen as philosophical or metaphysical is a further issue. Thus whether it can be seen as being addressed in a project remotely like what ontology and metaphysics was intended to be is so far left open.

Take the question 'Are there numbers?' on the domain conditions, or external reading as an example. It is not trivially answered with 'Sure, since two is a numbers,' since on the external reading of the quantifier it is only true if a number is part of the language-independent domain of all objects. This does not follow simply because two is a number. It could be, somehow, that 'two' in that sentence does not pick out nor aim to pick out an object. Maybe 'two' in that sentence does something else semantically, while the sentence 'two is a number' is still true. This is a coherent possibility, and if it obtains then the inference from 'two is a number' to 'there are numbers' is invalid on the external reading of the quantified sentence.

Even though the external question 'Are there numbers?' is not trivial, it remains open by all this whether it is nonetheless answered in other ways than by example, and maybe even answered quite trivially. For example, is an answer to it immediately implied by Euclid's Theorem that there are infinitely many prime numbers? It certainly would be if Euclid's Theorem were true not just on its internal reading, but also on its external reading. The quantifier 'infinitely many' has an internal and an external reading just like other quantifiers. Euclid's Theorem is certainly shown to be true in mathematics, but on which reading is it established there? Clearly at least on the internal reading, or so is not too hard to see. But is it established on the external reading as well? That will depend on how quantifiers are used in mathematics, which is connected to how number words are used in mathematics. If number words are nothing like names for objects, if they are not referring or denoting expressions at all, then quantifiers would be badly matched with them if they would be used in their external reading in mathematics. Non-referential number words are more congenial with quantifiers over numbers used in their inferential reading. On the other hand, if number words are names for objects then this is congenial with the use of quantifiers over numbers on their external, domain conditions, reading. Referential number words are congenial with external quantifiers, non-referential number words with internal quantifiers. These two pairs form two coherent options of how our number talk might work.

This does not just apply to talk about numbers, but, *mutatis mutandis*, to talk about properties, objects, events, and so on as well. Non-referential singular terms go with internal quantifiers; referential singular terms go with external quantifiers. If for a particular domain the singular terms are non-referential and quantifiers are in general used in their inferential reading then we can say that *internalism* about that domain is true. On the other hand, if the singular terms are referential and quantifiers are used on their external reading then *externalism* is true. Which one is true for a particular domain is a substantial and difficult question. And it is in principle also possible that neither one is true, and that the domain of discourse does not exhibit a certain amount of coherence. Whether internalism or externalism is true for a domain is crucial for metaphysics. Here is why.

Suppose externalism is true for talk about numbers. Then Euclid's Theorem implies an answer to the external question whether there are numbers. Since quantifiers in mathematics, by externalism, are used externally, Euclid's Theorem involves an external quantifier over numbers. And it thus immediately implies that there are numbers in the external reading. The question whether there are numbers is thus answered in mathematics in both the internal as well as the external reading. There is then no further metaphysical question left to be asked. Whatever questions there were, they are all answered outside of philosophy, in this case in mathematics.

But if, on the other hand, internalism is true about talk about numbers then Euclid's Theorem only implies an answer to the internal question about whether there are numbers. The external question whether there are numbers will be left open by what is established in mathematics. This further, external question is a great candidate for the
question that has frequently been asked in ontology, i.e. does the world contain besides objects like tables and chairs also other things: numbers? This question is not answered by example, and if internalism is correct, it also is not answered in mathematics. It is a further question that goes beyond what is established this way, and it is a prime candidate for the question we ask in ontology. Thus if internalism is true then things are just as many originally thought they were: when we do ontology, the discipline, which is part of metaphysics, we should try to find out whether there are numbers. This is not something that is found out in mathematics, or answered by example, but a question that goes beyond all that. If internalism is true about talk about numbers then the external question whether there are numbers is one that can be seen as properly belonging to ontology and metaphysics. The upshot now is that the distinction between internal and external questions drawn this way is not at all anti-metaphysical. To the contrary, it has the potential to show that some questions about what there is properly belong to ontology, understood as a part of metaphysics. What needs to be the case for this to obtain is that internalism is true for the corresponding domain of discourse.

Whether internalism or externalism is true about domain of discourse is a complex and substantial question. It requires a close investigation into what we do when we talk a certain way. And to settle this is a largely empirical question. I have given it my best in other work to try to answer this question for a few cases. There I had to conclude that externalism is true for talk about ordinary objects, but internalism is true for talk about natural numbers, properties, and propositions. For many other cases I do not know the answer, in particular for events. I have given my reasons for these views in a series of papers,⁸ and the arguments are presented in more detail in Hofweber (2016). I won't attempt to explain here why things turned out the way they did for these different cases. What matters now is mostly what significance Carnap's Big Idea has for metaphysics and ontology. And here there is quite some significance, but it is different than what Carnap had in mind.

Carnap's way to defend Carnap's Big Idea turns it against metaphysics, but the present way of defending it does not. In fact, it is a way to defend metaphysics against the most serious charge that it is a confused project. This charge is not that the questions are meaningless, but to the contrary, that the questions are meaningful but already, and often trivially, answered. In a sense, Carnap was also concerned with this challenge, since he clearly doesn't think that one could reasonable take the metaphysician to ask the trivial internal question, since that is already answered, and so trivial that everyone should know the answer. But even leaving aside whether or not Carnap was correct that there is a sense of the question 'Are there numbers?' on which it is trivially answered in the affirmative (I agree with him on this), the issue remains whether that question is answered, trivially or not, in other parts of inquiry. Thus even if Carnap is wrong, and the question whether there are numbers is not trivially answered in any

⁸ See, in particular, Hofweber (2005a) and (2006).

sense, it certainly seems to be answered in mathematics. Thus there seems to be no work left for ontology or metaphysics to do given what has been done in mathematics. It is this worry, the worry that metaphysics has no domain, no area of inquiry that is its own, that seems to deprive it of its place in inquiry. If metaphysics merely tries to answer questions that have already been answered in other parts of inquiry, parts that are highly trustworthy, then there is nothing left to do. Metaphysics would have to go, not because its question can't be asked, but because they have already been answered. But this would not be so if internalism were correct about a domain of discourse. If internalism is true then the external question is not answered by what we have shown to be true in that domain. The external question is perfectly meaningful and factual, but it is still open. Metaphysics can try to tackle it, and for questions about what there is, ontology would be the part of metaphysics to do so.

How the project of ontology so understood is to be carried out, what we can hope to do here, and how things will turn out for individual cases are all question that are left open by what has been discussed here.⁹ What is crucial for this chapter is that Carnap's Big Idea is the key ingredient in how this will go. We need to distinguish two kinds of questions we can ask when we ask whether there are properties, classes, numbers, or propositions, or anything else. This was Carnap's important insight, and I believe it is the key to ontology, to why ontology can be part of metaphysics, and with it to many questions in metaphysics. Metaphysics turns out OK, although different than expected, and we should thank Carnap for it.¹⁰

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⁹ But see Hofweber (2016) for how I think it will turn out.

¹⁰ This chapter benefited from my attending Robert Kraut's graduate seminar on Carnap at Stanford in the late 90s, and from discussing Carnap with the participants of two of my own graduate seminars at Michigan and UNC. Thanks also to an anonymous referee for a number of good suggestions.

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2 Three Carnaps on Ontology

Robert Kraut

Carnap is frequently portrayed as advocating the elimination of metaphysics. Here, e.g., is Robin Le Poidevin:

The classic paper that sets out to undermine ontology is Rudolf Carnap's "Empiricism, Semantics, and Ontology"...¹

Carnap's goal, according to this prevalent picture, is to discredit ontology: to encourage us to stop doing it. Huw Price speaks of "... [Carnap's] celebrated attack on metaphysics;"² Matti Eklund addresses "the skeptical or deflationary or dismissive attitude toward ontology that Carnap seems to have;"³ Thomas Hofweber speaks of "Carnap's rejection of ontology, and metaphysics more generally...";⁴ Charles Landesman routinely described Carnap as seeking to "debunk" ontology.⁵

This conception of Carnap's goal—viz., his seeking to undermine ontology as traditionally conceived—is widely shared. It is, I think, fundamentally mistaken. Carnap is engaged in a far more subtle effort: not to undermine ontology, but rather to portray it as consistent with empiricist epistemological scruples.

To cut to the chase: Carnap's theory of ontology parallels noncognitivist theories of morality. Recall that such theories aim neither to eliminate nor to discredit moral evaluative practice, but rather to portray it as legitimate in light of possible metaphysical and/ or epistemological misgivings. Carnap's theory of ontology is best understood analogously: ontological discourse—discourse about what sorts of entities exist—is a device that enables explicit articulation of pragmatically motivated commitments to the adoption of certain linguistic forms. It is, in current parlance, an *expressivist* theory.⁶ Thus construed, the practice of ontology is fully consistent with empiricist requirements.

⁵ Landesman was one of my undergraduate metaphysics teachers. His lectures fostered the idea that Carnap viewed traditional ontology as defective and unworthy of continued practice.

⁶ Expressivism is one species of non-cognitivism. Helpful terminological clarifications, and contrasts between expressivism and other varieties of non-cognitivism, are provided in Schroeder (2010: Chs. 2 and 4).

¹ Le Poidevin (2009, 91). ² Price (2011, 13).

³ Eklund (2009, 130-56); see also his (2013, 229-49).

⁴ Hofweber (2011).

The theory that emerges from this understanding of Carnap generates extraordinary complexities—some of which find echo in other applications of expressivism, and others apparently unique to expressivism as applied to ontology. The goal here is to provide a systematic overview of Carnap's much misunderstood theory of ontology, and to explore its prospects, deficiencies, and consequences.

The structure of the discussion is as follows: Section 2.1 motivates Carnap's inquiry by articulating puzzles surrounding the notion(s) of *existence* as deployed in traditional ontological theorizing. Section 2.2 distinguishes three likely interpretations of Carnap's claims about ontology: eliminative, reductive, and expressive. It emerges that the third, expressivist interpretation provides the most plausible and philosophically rich—but also most daring—account of the discourse and practice of ontology. Subsequent sections fine-tune the theory, observe it in action, deflect likely objections, and tease out several undesirable consequences. Finally it is noted that Carnap's account of ontological practice—construed as a non-cognitivist/expressivist theory suffers from a peculiar circularity (here dubbed the "No Exit" problem) which is not obviously encountered in other such theories. Efforts are made to determine the extent—if any—to which such circularity undermines Carnap's account.

2.1

The existence of abstract entities—and the existence of moral facts, Fregean senses, possible worlds, Cartesian souls, fictional entities, numbers, *qualia*, arbitrary mereological sums, colors, the future, or a host of other familiar targets of ontological dispute—remains controversial. Perhaps the disputed entities are problematic in their own right; but more baffling is the very content of the ontological controversy: what would it *be* for such items to exist, or to not exist?⁷

Not clear. Despite its familiarity, the basic concept of *existence* is puzzling: it is difficult to say (without circularity) what the existence—or nonexistence—of various contested items amounts to.⁸ There are apparently non-problematic cases: disputes about the existence of caloric, or prime numbers greater than ten, induce little metaphysical

⁷ There might be no uniform answer: 'exists' might be equivocal and kind-specific (cp. Aristotle's claim that 'being' is said in many ways, depending upon the category in which it is predicated). But compare David Lewis: "I do not have the slightest idea what a difference in manner of existing is supposed to be" (1986, 2). Regardless of the verdict concerning equivocity, the present inquiry remains viable: if 'exists' and cognate expressions are equivocal, the meanings of various kind-specific ontological notions still demand illumination.

⁸ Those who discuss ontology often bypass the root problem. Steven Yablo, for example, in discussing the ontology of sets, says

One side maintains with Putnam and Quine that indispensability of sets in science argues for their reality; the other side holds with Field and perhaps Lewis that sets are not indispensable and (so) can safely be denied. Either way, the point is to satisfy curiosity about what there is.

But it is difficult to say whether indispensability is a good criterion for the "reality" of sets unless one has an antecedent notion of *what it is* for a kind of entity to be real. See Yablo (1998, 229–61).

anxiety. But other cases—venerable controversies about abstract entities, colors, meanings, and the like—are less straightforward.

Perhaps the long-standing ontological controversies are illusory: different notions of *existence* might be at work, or no well-defined notion at all.

We might begin by attempting an explicit definition of 'exist':

There exist objects of kind $K =_{df}$

K's have explanatory utility (or: K's are explanatorily indispensable); or

K judgments are intersubjectively possible; or

K's are localizable in space-time; or

K-facts are incorporable into a unified system; or

K's must be counted among the furniture of the world when taking inventory; or

Discourse about K's is literal, rather than fictional;

And so on. The problem with all such reductive/definitional attempts is that they do not get at the essence of existence: they are either too broad, or too narrow, or circular. Moorean open question arguments make this clear: no conceptual confusions lurk in entertaining the possibility of existent entities that lack causal efficacy, explanatory indispensability, determinate spatio-temporal location, intersubjective accessibility, or position in a unified system. Moreover, reference to "furniture" and "inventories" provides little more than picturesque redescription; and the contrast between literal and fictional discourse seems to presuppose a distinction between real and fictional existence, thus putting us back where we started.

Analyses are not always possible; 'existence' and cognate expressions (such as 'being' and 'reality') might be so fundamental as to resist capture in any noncircular paraphrase. Perhaps *existence* is, as G.E. Moore said of *goodness*,

one of those innumerable objects of thought which are themselves incapable of definition, because they are the ultimate terms by reference to which whatever *is* capable of definition must be defined.⁹

If this is so, then perhaps the best we can do is make explicit the relevant inferential connections—for example, introduction and elimination rules for quantifier expressions—and leave it at that. We can shun definitional efforts, and simply treat 'exists' as primitive and non-problematic. ("Any sufficiently clear concept can be made primitive" [Dana Scott]).¹⁰ But the intractability of certain traditional meta-physical disputes—about the existence of abstract entities, for example—raises suspicion that more is required. Perhaps the concept of *existence* is not "sufficiently clear" after all.

If the goal is to better understand customary metaphysical discourse about existence, several semantic approaches to first-order quantification theory might hold promise. Consider substitutional theories, according to which truth conditions for quantified formulae are specified in terms of the truth of closed atomic sentences.¹¹ On standard substitutional accounts, $(\exists x)Fx^2$ is true if and only 'Ft' is true for some singular term *t* contained within the substitution class. Perhaps existence is best understood in terms of truth. But perhaps not: for this substitutional truth condition presupposes a notion of existence (specifically, the existence of certain lexical items within the substitution class of singular terms) in order to get the substitutional recursions off the ground.

Or consider standard game-theoretic semantics, according to which $(\exists x)Fx'$ is true if and only if a winning strategy is available for the two person search-and-find game associated with the matrix Fx'.¹² Perhaps existence is best understood in terms of search procedures and locatability. But perhaps not: for this game-theoretic truth condition presupposes a notion of existence (specifically, the existence of a winning strategy in the associated game) in order to get the game-theoretic recursions off the ground.¹³ Moreover the winnability of certain search-and-find games surely requires that the appropriate items exist (within the appropriate field of search) and are able to be found. Thus existence is presupposed, rather than illuminated, by the game-theoretic approach.

Or consider straightforward objectual quantification. Perhaps the existence of Ks is best understood in terms of the truth of some sentence of the form ' $(\exists x)Kx$ ', wherein bound variables carry ontological commitment. But here lurk familiar puzzles about fictional entities, Meinongian quantification, and other issues concerning relations between quantification and ontology. As Philip Bricker notes,

Non-existent entities can be quantified over, referred to, and truly attributed properties. Existence is not a prerequisite for being talked about....Distinguishing a restricted quantifier that has existential import from an unrestricted quantifier that does not only has a point if existence is a substantial property that some things have and other things lack.¹⁴

The upshot—yet again—is that discussions of quantification and specification of truth conditions for quantified formulae assume, rather than illuminate, the concept of existence.

The general point is not that substitutional, game-theoretic or objectual semantics for quantifiers lack theoretical interest or applicability; the point is rather that such strategies presuppose the concept of existence and thus cannot provide the illuminating, noncircular analyses we seek.

¹¹ Dunn and Belnap (1968, 177–85); Marcus, "Quantification and Ontology" and "Nominalism and the Substitutional Quantifier," both in her *Modalities: Philosophical Essays* (New York: Oxford University Press, 1993); Parsons (1971, 231–7).

¹² See, for example, Hintikka, "Language-Games for Quantifiers" and "Quantifiers, Language-Games, and Transcendental Arguments," both in his *Logic, Language-Games, and Information* (Oxford: Oxford University Press, 1973).

¹³ Neil Tennant denies this. His own implementation of game-theoretic semantics requires no quantification over strategies, thereby enabling him to claim that "The notion of game-winnability finds perfect (and inductively definable) expression without any explicit ontologizing, as would be involved if one were to equate winnability with there being a winning strategy." See Tennant (2001, 3–20).

¹⁴ Bricker (2014).

There is another option: treat discourse about existence as irreducible and unanalyzable, but nevertheless illuminable as an instrument for expressing certain kinds of commitments, manifesting certain sentiments, or prescribing certain policies and/or plans of action. We might seek an account of the purposes typically served by talk of existence, or the conditions under which attributions of existence are assertible, or the circumstances that typically move standard speakers to attribute existence. Such an account takes the form of an *expressivist* explanation of ontological discourse— analogous to those metaethical theories that provide explanation rather than reductive analysis of moral discourse. Carnap had considerable sympathy for such explanatory strategies, despite the many puzzles they generate. The salient question becomes: What are we *doing* when we countenance the existence of a kind of entity?

2.2

One way to understand the Carnap of *The Logical Syntax of Language* and "Empiricism, Semantics, and Ontology" is *eliminative*. Weary of centuries-old, incessant disputes about the objective existence of various kinds of entities, and propelled by his radical empiricism, Carnap offered a bold indictment:

An alleged statement of the reality of the system of entities is a pseudo-statement without cognitive content.¹⁵

If someone decides to accept the thing language, there is no objection against saying that he has accepted the world of things. But this must not be interpreted as if it meant his acceptance of a belief in the reality of the thing world; there is no such belief or assertion or assumption, because it is not a theoretical question.¹⁶

Such passages recommend—on one reading—the *elimination* of metaphysical discourse and its replacement by a less problematic discursive device. Ontological disputes are deemed cognitively vacuous and a waste of time, and should thus be deleted from our repertoire. The motive behind such elimination is that the concept of "objective existence" is not sufficiently well defined; therefore we should stop arguing about the existence of various kinds of entities and—as Carnap recommends elsewhere—argue instead about the practical consequences of adopting one or another "linguistic framework." Carnap denies that there *is* such a fact as the objective existence (or non-existence) of a kind of entity—a fact that would legitimize adoption of one discursive framework rather than another. Ask not whether numbers enjoy objective reality: this is a pseudo-question. Ask instead about the practical consequences of adopting or adopting or abandoning first-order number theory. Such a "replacement" interpretation of Carnap's strategy is embraced by William Demopoulos:

...Carnap's goal in ESO is to show how the notion of a linguistic framework can be used to *transform* a traditional metaphysical problem into a problem of an altogether different

¹⁵ Carnap (1950, 214). ¹⁶ Carnap (1950, 207–8).

character....Questions that are advanced as questions about reality, but that are not amenable to [resolution by ordinary methods] are without "cognitive significance" and should be transformed into questions about the choice of a language form.¹⁷

The recommendation that ontological discourse be replaced by (or "transformed into") discourse about the pragmatic advisability of adopting specific linguistic frameworks is radical indeed. Most reflective theorists feel the urge to ask not only which linguistic forms ought to be adopted, given the practical and theoretical goals at hand, but also *what there is*. Indeed, the practical question cannot be answered without information about what there is: goals and strategies cannot be assessed in the absence of information about boundary conditions, and such information reintroduces the problematized concept of *existence*. The intuitive contrast between practical and onto-logical inquiries will not go away.

Put this another way: the proposed elimination/replacement borders on incoherence. For if questions can be raised about whether adoption of a given linguistic framework is warranted, the answer presumably requires, *inter alia*, reference to things that exist and the best way to deal with them. But the eliminative proposal *disallows* such justification, by disallowing talk about what exists. Apparently the "ontological eliminativist" has no access to the resources required for formulating reasons and justifications for the envisaged revision in our discursive practices.

Thus the touted elimination does not seem feasible; besides, it is not clear why elimination of ontological discourse is advisable in the first place. Even if it be granted that assertions about existence cannot (without circularity) be translated into other terms, and even if there is no "sanitized" discursive idiom free of the problematized existential concepts with which we might talk about existence and cognate concepts, nothing follows about the illegitimacy of those concepts. Other regions of discourse are similarly resistant to definitional-reductive analysis, without their disenfranchisement or elimination being thereby justified.

Put the soundness of the eliminative motive aside. This revisionary Carnap advocates radical departure from current practice, seeking to purge ontological inquiries from our repertoire. His eliminative mandate is: "Stop arguing about what kinds of entities exist; talk instead about what you can do for yourselves and how you can best do it." But the price of such elimination is high: after the proposed discursive purge there remains an expressive impoverishment that frustrates the Ontologist in us all. For we wish to understand our world; this involves, among other things, knowing what there is. The proposed elimination disallows such inquiries.

Enter a second Carnap: more conservative, seeking to preserve ontological discourse while proposing a conceptual analysis—a meaning-preserving paraphrase, or a reductive account of truth conditions—of such discourse. This Carnap claims that ontological questions *really are* pragmatic questions about the advisability of adopting certain linguistic frameworks; they are "quasi-syntactic questions misleadingly

¹⁷ Demopoulos (2011, 647–69); here p. 653.

formulated in the material mode of speech." Thus conceptual analysis, not elimination, is the task at hand. This strategy, unlike the previous one, validates continued participation in ontological discourse, portraying it as less problematic than one might have feared. Here are some remarks that place Carnap within this camp:

To accept the thing world means nothing more than to accept a certain form of language...¹⁸

We may still speak... of "the acceptance of the new entities" since this form of speech is customary; but...this phrase does not mean for us anything more than acceptance of the new framework, i.e., of the new linguistic forms.¹⁹

Now it may be asked why I repeatedly propose to translate sentences which are formulated in the material mode of speech into the formal mode. I do this for the purpose of showing that such sentences belong to the field of syntax.²⁰

On this view, ontological discourse is relatively harmless—when properly understood—and translatable, without loss of content, into discourse about acceptance of linguistic forms. Thus

(a) Natural numbers exist; they are items in the world.

is claimed to be meaning-equivalent ("translatable") to

(b) Given our goals, it is pragmatically advisable to accept the framework of Peano Arithmetic.

The obvious problem is that the proposed reductive strategy is wildly implausible: it is doubtful that (a) and (b) are equivalent. Pending further argumentation, existence is one thing, pragmatically motivated acceptance of a linguistic framework quite another. Insofar as conceptual analysis seeks to provide plausible content-preserving translations, prospects for analyzing talk of existence into talk of pragmatic advisability are grim.

Perhaps neither elimination nor conceptual analysis are well advised: discourse about the kinds of entities that exist might pack a unique *expressive* power, a power not to state facts or describe the world but to do something else. This suggests yet another strategy for illuminating ontological discourse.

Enter a third Carnap: a descendent of Hume, a close ally of the emotivists, advocating a *non-cognitivist* or *non-descriptivist* account of ontological discourse: an explanation according to which it is not in the business of describing the world or stating facts.²¹ Ontological discourse serves some other purpose.

The suggestion is far-fetched: however the phrases 'fact of the matter' and 'state of affairs' are understood, surely it is a factual matter whether certain kinds of entities

¹⁸ Carnap (1950, 208). ¹⁹ Carnap (1950, 214). ²⁰ Carnap (1935, 75–6).

²¹ Here we embrace the orthodox assumption that non-cognitivism and non-descriptivism are two sides of a single coin. This coupling is challenged by Terry Horgan and Mark Timmons, who allow for cognitive states with non-descriptive content. See Horgan and Timmons (2006, 255–98); their approach is soundly rejected in Schroeder (2008, 49–51).

exist: it is, for example, a fact that electrons exist, and that Newtonian absolute velocities do not. Talk of existence appears to be paradigmatically *descriptive*: to say of what exists that it exists is to say what is true; to say of what exists that it does not exist is to say what is false.

Perhaps. But this Carnap, bent upon illuminating ontological discourse, is willing to flout appearances of descriptiveness: the role of such discourse, he claims, is to manifest, or render explicit, commitments to the adoption of certain linguistic forms.

This bold Carnap neither eliminates nor analyzes: he celebrates ontological discourse as a useful instrument that serves to articulate commitments to certain linguistic resources. This Carnap does for metaphysics what emotivists do for morality, what Hume does for causation, and what Kripke's Wittgenstein does for the language of rule-following: provide a non-reductive explanation that seeks to legitimize a region of discourse by portraying it as a non-descriptive mechanism for formulating commitments, expressing attitudes, or carrying out some other non-fact-stating task. Such explanation purports to be *non-revisionary*: conserving the discourse but legitimizing it (in light of concerns that motivate the inquiry) by providing a certain account of its role.

This "expressivist" Carnap is partly contrived; but there is historical basis. Noncognitivist explanations of moral discourse were part of Carnap's intellectual climate (in 1935 he notes that "a value statement is nothing else than a command in misleading grammatical form."²²) And the metaphysical discourse that constitutes the bulk of Heidegger's *Was ist Metaphysik*? is construed by Carnap as expressive. Carnap says

The (pseudo)statements of metaphysics do not serve for the description of states of affairs....They serve for the expression of the general attitude of a person toward life.²³

Here we find Carnap's expressivism made explicit. But even as an expressive mechanism, most metaphysics is deemed defective. It is deluded and self-deceived:

... through the form of its works it pretends to be something that it is not...

The metaphysician believes that he travels in territory in which truth and falsehood are at stake. In reality, however, he has not asserted anything, but only expressed something, like an artist.²⁴

Thus metaphysics is more like art—a mechanism aimed toward expression—and less like science—a mechanism aimed toward articulation of truths about the world. But metaphysics is *bad* art: inferior to poetry, music, and other expressive art forms:

lyrical poets do the same without succumbing to self-delusion.²⁵

The harmonious feeling or attitude, which the metaphysician tries to express in a monistic system, is more clearly expressed in the music of Mozart....Metaphysicians are musicians without musical ability.²⁶

| 22 9 | Schroeder (2008, 25). | ²³ Carnap (1959, 60–81); | here p. 78. |
|------|-----------------------|-------------------------------------|----------------------------------|
| 24 (| Carnap (1959, 79). | ²⁵ Carnap (1959, 79). | ²⁶ Carnap (1959, 79). |

Thus Carnap treats the bulk of metaphysics as a defective tool, an inadequate expressive substitute for art: it achieves—in misleading "theoretical" form—what art achieves more honestly and effectively.

But not all metaphysics is thus condemned: statements about the existence of systems of entities are essential to semantic theory—a vital enterprise—and thus not easily dismissed. Carnap's "metalinguistic" pragmatism aims to legitimize ontology—at least, those portions of ontology required by semantic inquiries.

To sum up: this Carnap is a noncognitivist about ontological discourse. He advocates a "non-descriptivist" or "antifactualist" account of such discourse, analogous to noncognitivist accounts of moral discourse advocated by emotivists. This Carnap seeks neither elimination nor analysis of ontological claims: he wishes to explain them—while preserving their integrity—within the larger context of human commitment, as a mechanism that functions to achieve certain non-descriptive ends. Historical accuracy aside, this non-cognitivist Carnap deserves serious attention. Call him 'Carnap^{*}!^{27,28}

2.3

Here is Carnap*'s conception of ontology at work: providing a lens through which traditional disputes might be viewed.

A) Consider a dispute about the existence of possible worlds. Two options are customarily available:

First Option: Possible worlds exist. They differ from the actual world in various ways, foremost among which is that we do not inhabit them.

Second Option: The only possible world that exists is the actual world. Truth conditions for modal and counterfactual claims concern what goes on in *this* world (for this is the only world there is.) Granted, possible-worlds semantics is a helpful tool for exploring and modeling the structure of modal discourse; but the ontologically bizarre entities spawned by such semantic theories should be treated with instrumentalist indifference.

Yet a third option—less frequently publicized—is bewilderment, grounded in uncertainty as to what it would *be* for possible worlds to exist (or to not exist).

²⁷ Yet a fourth Carnap would be engaged in the task of *explication*: viz, "the task of making more exact a vague or not quite exact concept used in everyday life or in an earlier stage of scientific or logical development [here, the concept of *existence*], or rather of replacing it by a newly constructed, more exact concept..." See Carnap (1947, 8–9). This fourth Carnap, though obviously related to his eliminativist counterpart, is not explored here.

²⁸ Huw Price discusses a character, also dubbed (independently) 'Carnap*', who differs substantially from my own. My Carnap* is a traditional noncognitivist, whereas Price's is not; mine seeks to conserve ontological practice, whereas Price's does not; and, more generally, my Carnap* endorses the contrast between descriptive and expressive indicatives, whereas Price's "global expressivism" rejects it. See Price (2011, 280–303).

Carnap* sees the ontological dispute as a clash of commitments concerning the pragmatic utility of Kripke-style semantics—broadly construed—in dealing with certain phenomena: specifically, in providing explanations of our customary ways of talking and thinking about possibility and necessity. The ontological claim that possible worlds exist is regarded by Carnap* as an expression of commitment to the pragmatic utility of adopting a specific linguistic framework: viz., that framework which accommodates talk of worlds, accessibility relations, similarity orderings, domains of individuals associated with worlds, mappings from worlds to extensions, denotation-at-a-world, truthat-a-world, and other familiar notions of modal semantics. The skeptic about the existence of possible worlds is seen by Carnap* as denying the utility of such resources believing them, perhaps, to be unwieldy and of dubious practical value—and thus as having undertaken a commitment to their eliminability. This latter commitment is explicitly represented in his/her insistence that possible worlds do not exist.

Such, at any rate, is Carnap*s configuration of what is going on. He makes no effort to minimize, ridicule, or debunk the dispute at hand: indeed, it is a real dispute—a clash of commitments—and an important one. But his diagnosis is conjoined with directives for a resolution: for his conception of ontological practice postulates underlying contextual parameters relative to which each theorist's metaphysical claims must be understood. If the theorists disagree about the data to be dealt with (modal discourse? dispositional properties? nomic necessity?), or about criteria for successfully dealing with the data, or about criteria for the pragmatic advisability of adopting a specific linguistic framework, their apparent ontological disagreement about "the existence of worlds" emerges as no real disagreement after all. It is, rather, a manifestation of their deploying different conversational contexts, with different underlying assumptions and goals. They are talking past one another; no wonder such a metaphysical "dispute" can go on interminably.

Thus Carnap* not only diagnoses the apparent intractability of the ongoing ontological dispute; he recommends a strategy for progress: encourage the participants to make explicit (1) the data they seek to deal with; (2) their sense of what it would *be* to adequately deal with it; (3) their criteria for treating one way of dealing with it as superior to another.

"Dealing with the data" is a murky and evasive notion at best; for the present, think of these theorists as concerned primarily with the task of *explanation*. Thus construed, the ontological dispute about "the existence of possible worlds" is configured by Carnap* as a clash of commitments regarding the explanatory utility of the discursive resources of possible-worlds semantics.

Explanatory value and pragmatic utility are admittedly interesting; but Carnap* appears to have changed the subject: for these pragmatic considerations do not appear to capture the notion of *existence* that prompted our initial inquiry. An open question argument makes this clear: there could be possible worlds despite its not being pragmatically useful to speak of them; conversely, adoption of the linguistic framework of possible-worlds semantics might be pragmatically advisable despite there not being, as

a matter of metaphysical fact, any possible worlds. In a nutshell: there is a *gap* between considerations of *what there is* and *what linguistic frameworks it is pragmatically advantageous to adopt*.

Put this another way: Carnap*'s foray into context sensitivity, explanation, and pragmatic utility is orthogonal to the initial ontological puzzlement about *whether there are, in fact, possible worlds.* He has changed the subject.

It will emerge shortly, however, that Carnap* provides resources for acknowledging and sustaining this gap; despite initial appearances, he has not changed the subject.

B) Consider a dispute about the reality of mental events and psychological properties. A Philosopher of Mind, impressed by considerations of explanatory/predictive power and systematic elegance, might wish to deploy a discursive framework that mobilizes the vocabulary and inferential resources of propositional attitude ascriptions. This commitment is expressed in her ontological claim that mental events and psychological properties exist. In contrast, her eliminativist opponent is committed to the adequacy of purely neurochemical explanatory resources, thereby leading him to deny any essential role to belief/desire attributions in adequate explanations of human behavior.

This ontological dispute about irreducibly mental events/properties is configured by Carnap* as a manifestation of conflicting commitments to the adoption of a specific discursive framework: viz., one that gives pride of place to causally efficacious and semantically evaluable internal states.

C) Consider a dispute about the existence of abstract objects: one faction alleging their existence, the other denying it. Carnap* portrays the customary confrontation between realist and nominalist as a clash of commitments to the explanatory utility of discursive resources that permit higher-order quantification and quantification over sentential positions, thereby enabling semantic explanations that invoke propositions as referents of that-clause constructions and properties as referents of abstract noun phrases.

These examples, though vastly oversimplified, point toward Carnap*'s general strategy: portray conflicting ontological views as expressions of conflicting commitments to the adoption of specific linguistic forms. But an additional move has been made, for Carnap* offers more than a mere gesture toward expressivism. In the examples adumbrated here, he suggests a quite specific candidate for the *kind* of commitment explicitly formulated in ontological claims: viz., commitments flowing from the perceived demands of *explanatory* projects.

Such an explanationist approach—in which the touted pragmatic considerations are grounded in the demands of explanation—contrasts with the more liberal approach of the historical Carnap, who explicitly demanded *tolerance* in permitting linguistic forms and the pragmatic criteria to be deployed in assessing their utility. Here, in contrast, Carnap* privileges a specific pragmatic criterion—explanatory ineliminability— as playing the key role in ontological discourse.

Such privileging is curious: it does not appear that all pragmatic considerations are grounded in explanatory agendas. Explanation is only one endeavor likely to motivate the adoption or rejection of linguistic resources. It is, moreover, a bad idea to seek illumination of the concept of existence in terms of the pragmatics of explanatory efforts— if only because it is notoriously unclear what an explanation is.²⁹ It is unclear, for example, whether a single notion of *explanation* applies across disciplinary boundaries, whether interest-relativity and idealization render explanation "subjective," or whether explanation consists of derivation from covering laws, unification, or discovery of underlying causal mechanisms.

Carnap^{*} acknowledges the host of puzzles surrounding the notion of explanation. Yet he insists—for reasons yet to be divulged—that disputes about the existence of a kind of entity are best construed as expressions of conflicting commitments to the explanatory ineliminability of a given discursive framework. And despite acknowledged complexities infecting the very idea of explanation, Carnap*'s strategy has obvious merit. His rationale for privileging explanation-based considerations lies in their capacity to illuminate traditional ontological disputes. Construing the discourse of ontology as grounded in commitments to the explanatory ineliminability of a linguistic framework has the virtue of unifying a wide range of traditional ontological disputes: arguments about the existence of color manifest disagreements about the role of color predicates in psychophysical explanations; arguments about the existence of expressive properties of music turn on disputes about best explanation of music perception; arguments about the existence of a Judeo-Christian deity turn on disputes about best explanation of natural phenomena. And so on.

Whatever the virtues of Carnap*s theory as adumbrated thus far, it is vital to note once again—that his portrayal of ontological disputes neither trivializes, debunks, or delivers quick resolution. Painful effort might be involved in determining whether a given discursive commitment is well advised on explanatory grounds—or, for that matter, on other sorts of pragmatically based grounds.

It is also vital to note that Carnap*'s theory deploys a contrast between *adopting linguistic forms* and *adopting specific theories of the world*; it thus assumes the familiar but maligned distinction between *matters of language* and *matters of fact*. His theory therefore conflicts with Quinean wisdom about "philosophy and science as [being] in the same boat..."³⁰ For on Carnap*'s view there is a radical discontinuity between ontology and other theoretical frameworks: claims within physics and chemistry are about The Way The World Is, whereas claims within ontology are expressions of commitments to adopting linguistic forms. This contrast sits poorly with the ostensible similarity between ontology and other scientific/theoretical enterprises: the ontologist and scientist certainly appear to be involved in the same sort of endeavor—viz., describing the world. Moreover, the portrayal of ontological theories as implicitly

²⁹ A fine historical survey is provided in Salmon (1989). ³⁰ Quine (1969a, 127).

metalinguistic requires a version of the analytic–synthetic distinction, and is thus vulnerable to familiar Quinean objections.³¹

All of this is true but unsurprising. Carnap* is, after all, a Carnapian. If countenancing a contrast between metalinguistic considerations (about choice of linguistic frameworks) and factual considerations (about choice of scientific theories) packs the power to illuminate traditional ontological discourse, so much the better for the contrast.

But note in passing: it is not clear how strong a version of the analytic/synthetic distinction is actually required by Carnap*'s strategy. Grant the difficulty in drawing any principled line (perhaps because there is none) between aspects of verbal behavior grounded in linguistic rules alone, and aspects grounded in collateral information: it is difficult to say when you mean different things by your words than I do, and when your meanings are the same but your background beliefs are outlandishly different. But Carnap* might have a theory of what we are *doing* when we chalk a dispute up to difference of linguistic framework rather than difference of belief or background substantive theory. This is less a matter of requiring an analytic/synthetic distinction and more a matter of making sense of the way we explain our disagreements in terms of semantic differences rather than doxastic differences. So Carnap*, though feeling the force of Quinean criticisms, nonetheless has room to maneuver.

Despite complexities and potential difficulties, Carnap*'s theory illuminates the curious intractability of ontological disputes: refusal to affirm (or deny) the existence of a kind of entity—whether possible worlds, mental events, or arbitrary mereological sums—is seen by Carnap* as grounded in ambivalence about whether modal semantics, folk psychology, or unrestricted mereological composition are "genuinely explanatory," and thus whether commitment to the explanatory ineliminability of their resources is warranted.

2.4

It is bad philosophical strategy to treat certain notions as so fundamental (or "basic") as to resist analysis, while at the same time affording them such central significance as to require that their meaning be relatively clear to all. Carnap* is less than certain what *existence* consists of; but he refuses to be bullied into treating it as an "unanalyzable primitive." Preferences for "desert landscapes" strike him not as ill-advised, but rather as unintelligible: for he does not know (for example) what it would *be* for abstract entities to not exist, and thus how to distinguish metaphysically arid deserts from lush gardens. Thus his goal is to specify what people are doing when asserting or denying the existence of a kind of entity; his hypothesis is that ontological discourse is a mechanism that enables expression of commitments to the explanatory ineliminability of specific linguistic frameworks. Carnap* claims that his theory *conserves* customary ontological practice, in the sense that coming to believe the theory in no way undermines

³¹ See, for example, Quine (1966, 126–34).

continued engagement in the practice; it merely provides a better sense of *what we are doing* when thus engaged.

This is not an unfamiliar sort of claim, given non-cognitivist strategies elsewhere on the philosophical map. The moral expressivist—Carnap*'s counterpart in ethical theory—offers an explanation of moral discursive practice which purports to be consistent with continued, unrevised engagement in that practice: expressivism is touted as a *conservative* explanation that enables moralizing to go on as before.³² But it is not clear whether this is true: perhaps, having become convinced of the truth of expressivism, an agent can never go back to moralizing in quite the same way as before. Perhaps the "higher level" explanation of the practice somehow trickles back down and undermines the practice.³³ Analogously, it is not clear that Carnap*'s strategy enables ontological practice to continue unaltered. Perhaps the self-understanding it provides would prompt metaphysicians to stop arguing about the existence of propositions—for example—and argue instead about the utility of adopting propositional quantification. But if this is a consequence of Carnap*'s theory then he fails by his own lights: for he sought a conservative explanation that facilitates comfortable acquiescence into ontological discourse, not its elimination or revision.

Apart from general misgivings about the conservativeness of non-cognitivist strategies, specific details of Carnap*'s theory merit skepticism. The theory privileges *explanation* as the foundation of ontological discourse; but obviously there is a contrast between existence and explanatory potency: natural numbers might exist even if arithmetic discourse is no essential part of any adequate explanation; Fregean senses might be real even if reference to them is not demanded by explanations of linguistic behavior or cognition; Platonic Forms might exist even if their ontological keep is earned *via* some route other than explanation; norms might exist even if they do not function as explainers. Some existents do not explain; and perhaps—depending upon the plausibility of "fictionalist" strategies—some explainers do not exist. There is more—and less—to the concept of *existence* than can be captured in terms of explanatory ineliminability.

Such observations, though compelling, bring us full circle: for they immediately prompt questions about *what it would be* for these items to exist, or to not exist—the very questions with which we began. At least Carnap*'s strategy provides foothold for an answer, whereas the alternative (viz., treating *existence* as "primitive") is less than satisfying.

There is obviously work to be done in assessing Carnap*'s theory: the intuited contrast between existence and explanatory ineliminability must be accommodated; the alleged conservativeness of Carnap*'s non-cognitivist theory—i.e., its allowing ontol-

³² See, for example, Blackburn (1993, 3–11).

³³ This "No Return" phenomenon—a global challenge to expressivist explanation—is systematically explored in my "The Metaphysics of Artistic Expression: a Case Study in Projectivism," in Johnson and Smith (2015, 85–105).

ogy to go on as before—must be addressed. And there are additional concerns, involving various dimensions of ontological practice that Carnap*'s theory must address:

1) There are modal dimensions. The "realist" metaphysician, for example, sees the existence of abstract entities as transcendent, eternal and necessary: not dependent upon forces that condition pragmatically motivated commitments. But commitment and practical decision are permeated with *contingency*: projects might have been different; conventions might have been different; explanatory goals might have been different. We might *not* have found it advisable, given our goals and interests, to adopt (for example) the language of arithmetic. Carnap*'s suggestion that claims of existence are expressions of discursive commitments appears to get the modalities wrong: if such commitments might have been otherwise, then—it would seem—the existence of numbers might have been otherwise. But surely the existence of numbers, unlike the adoption of conventions and undertaking of commitments, is necessary. Carnap*'s theory thus fails to accommodate the modalities visible from within ontological practice.³⁴

2) There are phenomenological dimensions. There is *something it's like* to do ontology: one has the sense of engaging in *discovery* rather than *invention*. But if ontological claims are expressions of commitment, they are *not* announcements of discoveries; Carnap*'s explanation of ontology in terms of pragmatically motivated commitment fails to accommodate the phenomenology of ontological practice.

3) There are methodological and semantic dimensions. Expressivist theories about morality, rule-following, or any other region of discourse—prompt ongoing skepticism. Peter Geach famously alleged "a radical flaw in this whole pattern of philosophizing," insofar as it confuses predication and assertion and provides inadequate accounts of conditional embeddings; more recently, Mark Schroeder provides compelling arguments that "the prospects [for expressivism] are bleak."³⁵ Moreover, the purported bifurcation between "descriptive" and "expressive" sentences wreaks havoc upon compositional semantics: Boolean complexes of truth-conditional and expressive indicatives pose formidable challenges; sentences such as "If mass is conserved in all interactions, then spirits do not exist" and "If 11 is prime, then numbers exist" combine—according to Carnap*'s theory—descriptive antecedents with expressive consequents. Any holistically adequate theory of meaning must accommodate such hybrid constructions, but it is not clear how best to do so.

Many of these problems are *general* problems for expressivism: they are endemic to the entire non-cognitivist tradition with which Carnap* has cast his lot. Humean theories of causation, emotivist theories of morality, deflationist theories of truth, Kripke's Wittgenstein on rule-following, and related non-descriptivist strategies mobilize a contrast between fact-stating and non-fact-stating discourse; this contrast, in turn,

³⁴ This objection was made especially clear to me in discussions with Christopher McMahon.

³⁵ Schroeder (2008: 15). See also Geach (1960: 221-5; 1965: 449-65) and Schroeder (2010).

requires a host of semantic, metaphysical, and psychological assumptions, none of which is self-evidently true. Perhaps Carnap* is injudicious in his choice of allies; nevertheless it is worth investigating whether his theory of ontological discourse succumbs to challenges *over and above* those customarily encountered by expressivist theories: that is, whether his expressivist semantics for ontology encounters *domain-specific* problems resulting from special features of ontological practice.³⁶ We consider the challenges in turn.³⁷

2.5

Carnap*'s theory apparently collapses the contrast between *what there is* and *what linguistic forms it is advisable to adopt*. But surely this contrast must be preserved by any adequate account of ontological practice.

Appearances notwithstanding, the contrast is not collapsed by Carnap*'s theory. For his theory does *not* portray ontological claims as conceptually equivalent to claims about the advisability of adopting certain linguistic resources (any more than expressivism portrays moral claims as conceptually equivalent to claims about sentiments). Carnap* preserves the contrast between what there is and what linguistic forms it is advisable to adopt, by exploiting the contrast between *expressing a commitment* and *asserting the pragmatic advisability of undertaking that commitment*.

To see this, an analogy is helpful. Consider the contrast between

(p1) I promise to meet you at Brenen's tomorrow at noon.

(p2) It is advisable, all things considered, that I meet you at Brenen's tomorrow at noon.

These utterances (directed to my friend Lisa) are neither semantically nor pragmatically equivalent. (p1) performs the action of undertaking a commitment: incurring certain obligations, and licensing certain expectations on Lisa's part; (p2), in contrast, does none of those things: it simply describes the situation as one in which I am better off meeting Lisa than not meeting her. This contrast precisely mirrors, according to Carnap*, the contrast between, e.g., claiming *that propositions exist* and claiming *that it is advisable to adopt a language that permits propositional quantification*: the former *expresses* a commitment, whereas the latter *describes* the world as making such a commitment advisable.

This contrast is familiar from discussions of performative linguistic acts. It is the actual undertaking of commitments, not judgments about the pragmatic utility of

³⁶ The helpful contrast between *domain-specific* and *domain-neutral* problems confronting expressivism is deployed throughout Schroeder's *Noncognitivism in Ethics*.

³⁷ Yet another domain-specific challenge—not explored here—concerns ontological determinacy. According to Quine's version of ontological relativity, there is *no* kind of entity such that adoption of a given linguistic framework mandates "acceptance" of that kind of entity: there is "slack" between acceptance of a particular linguistic framework and commitment to the existence of a specific kind of entity. If Quine is right about this, then Carnap*'s theory falls short of explaining ontological practice; but Quine might not be right about this.

doing so, foregrounded in Carnap*'s theory. His conjecture is that there is, within our customary repertoire, an expressive mechanism that serves to render explicit certain discursive commitments we have actually adopted. That mechanism is the discourse of ontology.

The point is that Carnap^{*} is no reductionist: claims about existence are *not* portrayed as meaning-equivalent to claims about the pragmatic advisability of adopting linguistic forms. He preserves the semantic contrast between

(c) There are propositions.

and

(d) It is pragmatically advisable, in light of today's projects, to adopt the language of propositional quantification.

(c) is not equivalent to (d): (d) is truth conditional, whereas (c) is not; (c) serves to explicitly formulate a commitment, whereas (d) claims that the facts are such as to warrant that commitment. Crudely: (d) *describes* the situation that legitimizes the commitment or decision embodied in (c).

Thus there is no collapse of talk of existence into talk of the pragmatic advisability of adopting certain linguistic forms. To this extent Carnap*'s theory is consistent with customary ontological practice.

2.6

There are modal dimensions to the practice of ontology. If abstract entities exist, they exist necessarily; but necessity does not accrue to the commitments and practical decisions supposedly expressed by talk of existence: our commitments might have been different; but abstract entities could not have been different. Therefore existence claims cannot be construed as serving to manifest commitments to the explanatory ineliminability of linguistic forms: to think otherwise is to ignore metaphysically vital differences of modal status. Carnap*'s theory fails to accommodate the modalities visible from within ontological practice.

That is the challenge. But the argument is unsound. The content of a commitment is distinct from the forces that prompt it. A commitment to studying number theory, for example, is a commitment to studying necessary relations, although the commitment itself is not necessary: one might have undertaken different commitments. Nothing in Carnap*'s theory mandates rejection of the idea that some objects and relations exist of necessity.

A related but more troubling challenge lurks in the vicinity: one that involves objectivity and mind-dependence of entities. An expressivist semantics for ontological discourse should not have the consequence that all items claimed to exist are mind-dependent. But if ontological claims are the expressions of attitudes, it is not clear how this consequence can be avoided.

It is helpful to consider an analogous objection frequently raised against expressivist theories of moral discourse. If the role of moral idioms is to manifest sentiments, then—the argument goes—morality itself is dependent upon sentiment. But then—the argument continues—so much the worse for expressivism, because the view from within moral practice countenances no dependence of morality upon sentiment. Immoral acts would be immoral even if everyone approved of them. Moreover: if the relevant moral attitudes are contingent upon various factors, then—the argument goes—moral properties are themselves contingent upon those factors; but this again flies in the face of prevalent intuitions about the objectivity of morality. Thus expressivism fails to accommodate the phenomenology of customary practice, insofar as it—allegedly—portrays morality as mind- and sentiment-dependent.

Simon Blackburn suggests a strategy that enables the expressivist to circumvent such unwelcome results:

The utterance "whatever I or we or anyone else ever thought about it, there would still have been (causes, counterfactual truths, numbers, duties)" can be endorsed even if we accept the projective picture, and work in terms of an explanation of the sayings which gives them a subjective source.³⁸

To see what Blackburn is up to, consider

(e) If everyone—myself included—had positive sentiments toward burning down orphanages, then burning down orphanages would be morally acceptable.

Expressivism does not validate (e): it does not underwrite the truth of conditionals that claim dependence of morality upon sentiment. Whatever the sentiments, burning down orphanages is morally unacceptable: in offering this latter verdict, the expressivist sees himself—when turning self-reflective—as manifesting negative sentiments toward burning down orphanages, and also toward anyone's having positive sentiments toward such activities.

In other words: a carefully implemented expressivism purports to accommodate the possibility of an act's being morally wrong *independent* of moral sentiment. The intuited gap between moral value and moral sentiment is explained as itself a manifestation of moral sentiment.

Blackburn's recommended procedure for avoiding the dependence of morality upon sentiment is tied to his more general semantic strategy of treating conditionals with normative antecedents and consequents as expressing "higher order attitudes": attitudes about the co-tenability of attitudes. Unfortunately, his strategy has attracted considerable criticism (as Schroeder describes it, "[The] 'higher-order attitudes' accounts are plagued with fatal problems"³⁹).

The analogy with expressivist accounts of moral commitment is instructive; fortunately, Carnap* requires none of the "higher order attitude" machinery deployed by

³⁸ Blackburn (1984, 19). ³⁹ Schroeder (2008, 9–10); fn. 3; see also van Roojen (1996, 311–35).

Blackburn, nor does his expressivism carry a commitment to Idealism: his theory does not entail the mind-dependence of existence. Consider

(f) If no one were committed to the explanatory ineliminability of discourse about microparticles, then microparticles would not exist.

If (f) were validated by Carnap*'s expressivist semantics for ontological discourse, the result would be the dependence of microparticles upon explanatory agendas. But Carnap*'s expressivist semantics does not underwrite the truth of (f); to see this, note that standard semantics for counterfactuals dictates the following intuitive procedure for assessing the truth of (f):

Go to the closest worlds in which people have different explanatory commitments than those commonly undertaken in the actual world—including commitments to the explanatory ineliminability of the linguistic framework of microphysics. Look at those worlds. You will see that in each of them, there are microparticles; never mind what the denizens of that world think about which linguistic frameworks are or are not explanatorily ineliminable. Each such world contains protons, neutrons, electrons, and all the other items we take to be constitutive of physical reality.

We might judge denizens of those worlds to be misguided in their linguistic commitments. But those non-mind-dependent entities that exist do not depend for their existence upon anyone's commitments. During reflective moments, I regard my ontological judgments about such situations as expressions of my own metalinguistic commitments. But that does not validate (f). What I would say were I a denizen of one of the worlds to which the antecedent of (f) directs attention is irrelevant. I assess these counterfactual situations "from the outside".

To sum up: Carnap^{*} denies that the semantic dependency of ontological claims upon explanatory commitments infects the content of such claims with contingency. His expressivism does *not* validate

(g) If everyone deemed it inadvisable to adopt the language of number theory, there would be no numbers.

Rather, his account validates

(g') If everyone deemed it inadvisable to adopt the language of number theory, they would deny the existence of numbers.

Note that (g') is consistent with standard ontological practice and with the necessary existence of numbers.

2.7

There are phenomenological dimensions to the practice of ontology. One discovers in light of the evidence that Ks exist; only then does one regard the adoption of certain

linguistic forms as warranted. Theorizing about what exists involves the phenomenology of discovery, not that of decision; an adequate account of ontological practice must accommodate the "fact finding" phenomenology associated with it. Carnap*'s expressivist strategy, which explains ontological discourse as expressions of discursive commitment, seems ill-suited to explain the phenomenology of ontology. Here is a typical contrast between discovery and invention, and an underscoring of its importance, invoked in John Corcoran's statement of "neutral platonism":

... it holds that these objects [groups, sets, natural numbers, strings, etc.] exist and that they are independent of the human mind in the sense that

(1) their properties are fixed and not subject to alteration and

(2) they are not created by any act of will.

In a word: mathematical truth is discovered, not invented; mathematical objects are apprehended, not created.⁴⁰

Carnap* must explain *why* ontological inquiries appear to be in the business of tracking down mind-independent and practice-independent realities, when (according to him) the most plausible account of those inquiries portrays them otherwise. This is a complex challenge; it is useful to place it on a larger map.

Consider Matthew, a set theorist interested in Banach–Tarski decompositions, ultrafilters, and large cardinal axioms. He wants to know what sets exist, of what size, and what properties obtain among them. He insists that when thinking about inaccessible cardinals and other such *exotica*, he is involved in discovery, not invention. He denies that in doing mathematics he is merely grinding through the logical consequences of chosen axioms. He insists that his mathematical experience is that of exploring a realm of determinate set theoretic objects, much as an astronaut might explore the surface of the moon for determinate realities that lie hidden.

Matthew's experience of mathematical reality constitutes phenomenological data that any adequate explanation of mathematical practice must accommodate. His broadly Platonistic picture—grounded, he says, in his own sense of "what proof and discovery are like"—is no irrefutable argument in favor of Platonism, any more than theistic religious experience constitutes an irrefutable argument in favor of theism. But explanation is required of *why* Matthew sees the situation as he does. The point is commonplace: even if Platonism is false, we need to know why it *seems* true to so many working mathematicians. Matthew's mathematical experience is a datum that must be accommodated—in one way or another—by any adequate philosophy of mathematics.⁴¹

Analogous phenomenological requirements operate in other philosophical enterprises. Consider value: there is something it is like to discern good and evil in the

⁴⁰ Corcoran (1973, 24).

⁴¹ "The foundations of mathematics is, at least partly, a scientific study of mathematical practice. So what mathematicians actually do and actually say is of direct interest to the foundations of mathematics." See Harvey Friedman, Foundations of Mathematics weblog at http://www.cs.nyu.edu/pipermail/fom/2006-April/010309.html-. See also my (2001, 154–83).

world. One has a sense of discovering—not creating or projecting—the rightness and wrongness of actions and states of affairs. The apparent objectivity of value is not, in itself, an obstacle to expressivist explanations of evaluative discourse; it is simply one more datum to be explained.

Indeed, the phenomenological dimension of participation in *any* practice must be accommodated by any purported explanation of that practice—expressivist or otherwise. And so it is with ontological discourse: ontological pronouncements do not "feel" like expressions of commitment; they feel, rather, like reports of discoveries. The above examples—mathematics, value, and modality—serve as reminders that the phenomenology of participation in a practice is part of the data to be explained.

On this score Carnap*'s theory is no more problematic than any other non-cognitivist theory; indeed, he is well positioned for a reply. For he notes that a theorist *discovers* (rather than stipulates) the utilities associated with a given discursive framework, and discovers the consequences of any commitments she might undertake. One discovers what is (or is not) pragmatically advisable; one discovers whether a commitment brings other commitments in its wake; to this extent Carnap* is able to accommodate the "fact finding" phenomenology of ontology.⁴²

There is, however, a lurking circularity infecting this strategy. Discovery that a given linguistic framework is pragmatically beneficial requires discovery that the framework facilitates transactions with the world and brings one closer to one's goals. It is impossible to make pragmatic assessments of a tool's utility without reference to aspects of the world which the tool is intended to manage. Those aspects of the world exist: they provide constraints upon efforts to meet one's goals. Thus the notion of existence is deployed in the very process of assessing the pragmatic advisability of adopting a linguistic framework. Precisely this apparent circularity emerged earlier, in connection with the first Carnap's eliminative strategy: elimination of a discursive framework—e.g., the framework of ontology-can be justified only in light of the way the world is, and arguments for eliminating a linguistic framework-e.g. the discourse of demonic possession-turn on considerations about things that exist in the world and relations that obtain among them. Precisely the same circularity apparently arises in connection with Carnap*'s expressivist strategy: the concept of existence is deployed in the very act of seeking to illuminate talk of existence in terms of pragmatically advisable adoptions of linguistic frameworks. There is, apparently, "No Exit" from talk of existence, even when the task at hand is to provide an explanation of the role played by talk of existence.

This problem arises in connection with other non-cognitivist strategies. John McDowell, for example, notes that non-cognitivist explanations of normative discourse are likely to fail through circularity, given that any adequate explanation of such discourse must invoke not only causal relations but relations of appropriateness and warrant: thus an adequate explanation of normative discourse must, according to McDowell, avail itself of normative discourse, thereby leading to circularity.⁴³

⁴² Here I have been helped by conversations with Kevin Scharp. ⁴³ McDowell (1998, 131–50).

The problem is not intractable. Grant that pragmatic assessment of a linguistic framework assumes an existing reality for that framework to "push up against".⁴⁴ Carnap* accepts this: he claims a robust sense of mind-independent reality and vigorously denies any sympathy for idealism. He insists that the structure of an existing reality plays a key role in determining matters of pragmatic advisability. He thus deploys ontological discourse in his very theorizing about ontological discourse: it is, he says, because of what exists, combined with one's goals and agendas, that adoption of one framework rather than another is pragmatically advisable.

But it is not obvious to Carnap^{*} that deployment of the concept of existence when providing pragmatic assessments thereby vitiates his expressivist efforts. When he reflects upon earlier pragmatic decisions concerning adoption of linguistic frameworks, he explains his talk of existent objects and their impact upon pragmatic considerations in expressivist terms. He acknowledges that existent entities constrain his pragmatic deliberations—just as Hume acknowledges that lightening causes thunder, and just as emotivists acknowledge that wanton infliction of pain is morally reprehensible. After all, Carnap^{*}'s expressivism was touted to be a *conservative* strategy, intended in part to earn us the right to continue doing ontology. If he could not avail himself of talk of existent entities when discussing pragmatic utilities, he would have failed by his own lights.

Put this another way: Carnap* claims to be a realist despite his expressivism about ontological discourse. The global challenge is to reconcile such realism with his pragmatist bent. This is explored at greater length in Section 2.9 below.⁴⁵

2.8

There are methodological and semantic dimensions to the practice of ontology. Ontological claims are coherently combinable with other sorts of claims. Descriptive claims frequently imply existential claims: "Joey Cat is on the desk, and desks are physical objects" entails "Physical objects exist;" "7 is a prime number" entails "Numbers exist." It is not clear how such entailments are possible, given that the first claim in each pair is descriptive and the latter expressive. Entailment relations require, at the very least, truth-evaluability of antecedents and consequents; insofar as ontological discourse functions expressively, claims about existence are without truth value and thus cannot enter into logical entailment relations. Even if the theory is complicated—as it must be—to accommodate implication-like relations among expressive claims, the prospect of deriving expressive conclusions from descriptive premises presents a challenge. Here is how Thomas Hofweber formulates the problem:

⁴⁴ Thanks to an anonymous reader for suggesting this phrase and specific objection to Carnap*'s expressivism.

⁴⁵ There is an unfortunate tendency to regard various forms of pragmatism as inconsistent with a robust realism. This is based upon confusions: pragmatism is not idealism, nor does it entail it. See Kraut and Scharp (2015, 331–60).

Existence claims are statements like "Numbers exist" or "There are numbers". However, these statements are implied by ordinary mathematical statements like "There is a prime number between 8 and 12" or "Prime numbers exist between 8 and 123". But how could an apparently purely factual mathematical statement imply an expressive one? It looks like either mathematics itself is expressive, or there is a special notion of implication at work here. The former case generalizes, and ontological expressivism will thus imply global expressivism. The latter case is unacceptable, too. Implication doesn't go that way. A factual statement does not imply an expressive one. This is completely contrary to what expressivism is all about...⁴⁶

Recall that Carnap*'s theory is intended as an idealized and improved version of the theory suggested by Carnap. Carnap alleges an *ambiguity* in 'Fs exist': there is an "internal" and an "external" reading. On the internal reading, 'Fs exist' is entailed by ordinary discourse about Fs; but on the external reading it is *not* thus entailed: it is the latter, external reading that prompts Carnap to explore pragmatics and the adoption of linguistic frameworks, and prompts Carnap* to explore expressivism and commitments to explanatory ineliminability of discursive forms. Carnap*'s irrealism about ontological discourse is intended as a theoretically coherent implementation of Carnap's views about external questions, and Carnap clearly regards 'Fs exist' as ambiguous.

Positing ambiguities is a bold strategy; it requires a principled account of the contextual parameters that determine whether a particular tokening of an expression falls under one semantic interpretive rule or another. Carnap* might have no such account; the alleged ambiguity might prove implausible. But Carnap was optimistic about the contrast between internal and external existence claims, and such optimism is reflected in Carnap*'s non-cognitivist theory.

"Numbers exist" is implied by ordinary mathematical claims, and is illuminated by one's chosen semantics for first-order quantification; but this leaves unclear, according to Carnap, the content of ontological claims made by realists and nominalists. The proper response to Hofweber is to note that the entailment relations to which he calls attention do not involve the ontological discourse treated expressively by Carnap*; whether such discourse can be effectively distinguished from its syntactically indiscernible "internal" counterparts is yet another formidable challenge which Carnap* must confront.

2.9

Finally, a serious methodological qualm—broached earlier—about Carnap*'s theory of ontology: it appears to deploy the very notion of *existence* it seeks to illuminate, thereby rendering it circular. It is difficult to avoid talk of existence, even when theorizing about the role played by talk of existence. Call this the *No Exit* problem.

⁴⁶ Thomas Hofweber, personal communication; but note his contribution to the present volume, wherein he denies that there are "two readings" of 'Fs exist'.

Expressivist explanations-like any explanations-require ingredients for their implementation. A thoroughgoing expressivism about moral discourse, for example, requires a well-defined set of sentiments and/or stances-call it the projective baseelements of which are (according to the theory) expressed in moral indicatives. When Hume speaks of "gilding and staining natural objects with the colors borrowed from internal sentiment," he assumes the existence of sentiments sufficiently rich to do the job, and "colors" which-whatever their origin-are real enough to get smeared onto the world. Emotivism exploits a set of "boo/hooray" attitudes; Kripke's Wittgenstein, in explaining the role played by rule-following attributions, exploits feelings of confidence that an agent will continue a mathematical series in a certain way.⁴⁷ In each such case, a certain phenomenological base is presupposed: the emotivist's moral sentiments, the Wittgensteinian's feelings of confidence, etc. The expressivist, in suggesting that indicatives formulated with a given fragment of discourse serve to manifest stances, express commitments, or evince non-cognitive attitudes, needs a rich story about such stances, commitments, and attitudes, a story which does not backhandedly advert to the discourse under analysis.

But the expressivist also needs a story about the objects and events that serve as prompting stimuli to agents who manifest stances, project attitudes, and/or undertake commitments. Such objects and events must *exist* if they are to fulfill their explanatory role: after all, nonexistent objects cannot prompt speakers to undertake commitments. Thus the circularity: an adequate explanation of pragmatic decision and commitment requires deployment of ontological discourse; an expressivist explanation of 'exists' and cognate expressions requires engagement in discourse about what does and does not exist. Thus talk of existence is deployed in theorizing about talk of existence; we might say that there is "No Exit" from ontological discourse, even when the task at hand is the explanation of ontological discourse.

Whether this predicament vitiates Carnap*'s enterprise is not clear. On the one hand, if the goal is to theorize about certain commitments—those, for example, allegedly manifest in ontological discourse—there is reason to assume that such commitments have already been undertaken and thus permeate the theoretical enterprise: it is no surprise that talk of existence forces itself upon any effort to theorize about talk of existence. On the other hand, it is not clear that a puzzling concept can be illuminated by a theory that deploys that very concept. Carnap* might seek to soften the discomfort by glibly invoking Neurath's ship and reminders about Quine's laudable (and fruitful) efforts "... to ponder our talk of physical phenomena as a physical phenomenon, and our scientific imaginings as activities within the world that we imagine."⁴⁸ But Quine's scientific inquiry into science provides no helpful analogy: for Quine's inquiry stems from no puzzlement about physical phenomena and scientific imaginings, whereas Carnap*'s inquiry stems from dismissive puzzlement about ontological discourse. Acquiescing in a discourse while simultaneously questioning its legitimacy is

⁴⁷ Kripke (1982). ⁴⁸ Quine (1960, 5).

methodologically suspicious: if there is sufficient comfort with such discourse to deploy it in one's theorizing, why the initial fuss?

But other considerations point in the opposing direction. Theories of language are formulated in language; inquiries into the semantics of questions are formulated as questions. Such considerations provide no warrant for treating the concepts of *language* or *question* as primitive, "unanalyzed" notions in all contexts. The fact that certain investigations mobilize the very concepts under investigation is no argument for treating those concepts uncritically.

It is simply unclear how to theorize about aspects of our conceptual machinery when the very concepts to be illuminated are deployed in the theorizing. This predicament is familiar in other philosophical areas: validation of one's norms of reasoning is problematic because those very norms are assumed in one's efforts to validate them; reliability of one's epistemic procedures is difficult to establish in any noncircular way because those very procedures are deployed in the process of establishing their reliability; evaluation of one's theistic perspective is problematic because that very perspective permeates one's criteria of epistemic evaluation. Such situations offer No Exit from the concepts in question. Perhaps the fact—if it is a fact—that there is No Exit from ontological discourse provides a barrier to certain kinds of theories about such discourse; or perhaps it will emerge, under more careful scrutiny, that the ontological concept problematized by Carnap* is not identical to the concept deployed in his background theorizing, thereby dissipating the specter of circularity. But however these general methodological issues are resolved, they provide no basis for the presumption, deplored by Carnap*, that the concept of existence is sufficiently clear to warrant its deployment as a primitive, unproblematic notion.49

2.10

Kit Fine notes that "there is a primitive metaphysical concept of reality, one that cannot be understood in fundamentally different terms."⁵⁰ In similar spirit, logician and computer scientist Arnon Avron recognizes "…basic concepts which cannot really be defined, and can only be explained in terms of themselves (or some equivalent

⁵⁰ Fine (2011).

⁴⁹ An illuminating alternative strategy for pursuing a broadly "naturalistic" metaphysics—perhaps bypassing the No Exit puzzle entirely?—is explored by Jenann Ismael. Her "side-on" strategy—inspired by Huw Price's methodology—outlines a metaphysical method orthogonal to Carnap*'s. But upon close inspection it emerges that the No Exit problem remains:

In some cases, the side-on view will go like this: there are these things in the world and people come by and gather information about those things, and they form beliefs that are intended to reflect the way things are with the world...

This side-on metaphysical strategy thus assumes the very ontological notion (viz., *there are these things in the world*) that Carnap sought to illuminate; therefore the Price/Ismael method of metaphysics appears not to scratch precisely where Carnap itches. See Price (2011) and Ismael (2014).

notions)," noting that "There is no way to explain the quantifiers 'for all' and 'exists' without using at least one of these quantifiers...⁵¹ Such sentiments bewilder Carnap*, thereby prompting his search for better understanding of ongoing arguments about the existence of various kinds of entities. Having despaired of meaning-preserving paraphrases or translational equivalents of 'exists,' 'real,' and cognate expressions, he seeks to clarify what we are doing when engaged in ontological discourse. His suggestion is that ontological claims manifest commitments to the explanatory ineliminability of specific linguistic frameworks. Despite the pitfalls of his theory-issues of circularity, conservativeness, and overall plausibility of expressivist strategies loom large-credit is due: Carnap*'s maverick willingness to confront what is perhaps the most fundamental question in metaphysics-the nature of existence-prompts a deeper look at the content of ontological disputes. If Carnap* is correct, a wary observer invited to participate in such disputes-whether about possible worlds, mental entities, universals, Fregean senses, or other popular targets of ontological controversy-should demand information about the data to be explained and the mode of explanation relevant to success. Should such demands be deemed irrelevant, the appropriate reaction to the ontological dispute is to walk away. Carnap's legacy is to have earned us the right to do so.52

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⁵¹ Arnon Avron, "Concerning Definition of Formulas," posted on FOM at <http://www.cs.nyu.edu/pipermail/fom/2007-October/011993.html>.

⁵² Portions of earlier versions of this paper were presented in my seminar on Objects and Objectivity at Stanford University (Spring, 1996), Central Division Meetings, American Philosophical Association (Chicago, 2002), and an invited symposium on Carnap and Ontology (American Philosophical Association, Minneapolis, 2011). Thanks to Anthony Everett and Thomas Hofweber for criticisms and suggestions, and to Stewart Shapiro for tough but sympathetic exploration of the theory and its possible instabilities. Justin D'Arms provided helpful insights into relevant aspects of moral realism and "direction of explanation" problems; Christopher McMahon and Richard Creath helped me formulate some key points. Thanks also to Lisa Shabel, Julian Cole, Kevin Scharp, Matthew Foreman, and Jim Landesman for valuable comments on later versions. Special thanks to an anonymous reader for suggestions that led to improvements, and to Neil Tennant for exhilarating dismissals of Carnap*'s theory as incoherent.

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Frameworks and Deflation in "Empiricism, Semantics, and Ontology" and Recent Metametaphysics

Alan Sidelle

Rudolf Carnap's "Empiricism, Semantics, and Ontology" (Carnap [1950]; henceforth: ESO) has received a good deal of sympathetic interest over the years from philosophers who are not particularly sympathetic to verificationism, or generally suspicious of metaphysics. Recent work has cited Carnap in connection with doubts about the genuine—'cognitive'—content of debates in the metaphysics of material objects.¹ This is particularly interesting because (at least some of) the debates in question don't-at least, not straightforwardly—look to address the *kind* of question Carnap critically discusses in ESO, and the closest Carnap comes to discussing such issues is in contrasting Realists and Subjective Idealists-but none of the current discussants are concerned with this issue: none are idealists or phenomenalists. My aim in this chapter is modest—I'd like to look somewhat closely at the sort of deflationary analysis Carnap gives of ontological disputes and to see how they are related to the arguments and motives of contemporary deflationists in the metaphysics of material objects (henceforward: 'contemporary deflationists'). I am particularly interested in the fact that most contemporary delationists are at least neutral about Carnap's deflationary attitude towards questions concerning abstract objects, and almost all would reject his stance on the Realist/Idealist debate. The interpretive question is: Can they really have a Carnapian account, yet disagree with him on all these points? The philosophical question is: Can they *consistently* give a Carnapian-style deflation of disputes about material objects, without accepting his other conclusions? And a question which somewhat falls between is: Does Carnap himself, given the nature of his argument,

¹ For example, see Sidelle (2002); Hirsch (2002a, 2002b, 2005, 2009, and elsewhere), Thomasson (2007, 2009); Chalmers (2009).

need to accept all of his conclusions? My conclusions, I expect, will be unexciting, but it will hopefully be of some use to see certain ideas sorted out.

3.1 First Contrasts

What is well known from Carnap is this basic idea. Meaningful discussion takes place within linguistic frameworks. The sorts of ontological questions philosophers discuss—Are there numbers? Do properties really exist?—have ready, but metaphysically unexciting answers if the questions are interpreted within-according to the semantic rules governing-the relevant framework ("Of course there are numbers, since there is a number between five and seven"). But philosophers don't intend this uninteresting question (which he calls the 'internal' reading of the question); instead, they are trying to ask something further—on Carnap's view, they are asking about "the reality of the system as a whole" (Carnap, 206). Carnap calls this an 'external' question, and claims that there is no sense to be made of it, except perhaps as a practical question about what sort of linguistic framework we should adopt: Not 'Are there numbers?' but 'Is it useful, or fruitful, to use a framework in which numerical terms can be replaced by variables and quantified over?' So-there are frameworks, meaningful but philosophically uninteresting claims internal to them, and meaningless (seemingly factual) questions 'external' to them. At best, the philosophers' questions are really questions about which framework we ought to use.

Here is one familiar way Carnap's terminology and general approach might be used to express a skeptical view about the metaphysics of material objects:

Friends of four-dimensionalism say that when my dog gets wet, there is a dry temporal dog part at one time, and a wet temporal dog part at another time. The three-dimensionalist says there are no temporal parts, and my whole dog is dry at one time, and wet at another. These are two ways of expressing the same states of the world within different frameworks, and so, basically, two different, non-conflicting descriptions of the same facts. The question 'Which framework is correct—the three or four dimensional framework?' has no factual answer: there are only pragmatic differences.²

The same might be said about the question of whether there is anything composed of my dog and your fish—the Universalist says 'yes', others say 'no', and this is because of the different 'frameworks' in which material object talk is couched.³ And something similar might be said about the questions of whether there can be coinciding objects, or whether the persistence of an object—the identity of a at t1 and b at t2—can logically depend on the existence of another object at one of these times (whether, that is, the 'only a and b' principle is true).⁴

 2 Strictly, there can be, as Hirsch notes, another factual answer—the answer to the question 'Which framework do we *in fact* use?'

³ E.g. Sidelle (2002) and Hirsch (2009).

⁴ I have formulated these in terms of general claims, but they will also have singular counterparts—e.g. 'Are statue and lump, at t2, two non-identical objects occupying the same location and made of the same parts?'

One may or may not find these claims plausible, but the basic idea seems fairly straightforward, and the use of 'framework' here is quite intuitive. It is mostly a vocabulary, including rules of application or use, but one might prefer 'framework' because it suggests how these rules and terms can more systematically color the way one views and thinks about phenomena in this area, and there is interaction between various descriptions. It is not, for instance, simply that 'object' may have different criteria of application, but because it does, 'dog' and 'same dog' and 'Chester' vary accordingly. And familiarly, a vocabulary 'carves' the world in a way. Singular terms apply to portions of the world for which there might be no terms in another vocabulary, or at least, none that are not extremely complex (giving rise to the question of whether the frameworks recognize the same objects), and the same is true of predicates, as is famously shown by 'grue'. Also, in the intuitive, familiar sense, a 'framework' may include what look like principles, such as 'not every collection of objects constitutes an object' or 'identity must be determined intrinsically.'⁵

A read through ESO suggests a number of differences between the views just expressed, and those of Carnap. Carnap's discussion is all about existence questions: Are there numbers? Are there propositions? Are there objects? While some of the above questions are—or are closely related to—existence questions: "Is there an object composed of my dog and your fish?"—others are not, unless severely twisted: "Does there exist a possibility for two material objects to be in the same place at the same time?" "Does there exist an identity relation between A and C?" Further, Carnap's discussion is primarily about *abstract objects*—numbers, properties, propositions. He does indeed discuss material objects, but only as one example he hopes will be illuminating. Relatedly, it seems like frameworks are more general than that which distinguishes (most of?) the disputants described above. After all, one framework is that of *material things*. Since all the parties we have discussed above accept this framework (even standard nihilists—they just don't accept *non-simple* things), it looks like their disagreement is not one 'across frameworks' as Carnap is conceiving them.

One more difference, which shall centrally concern us, is this. Most of the 'merely different frameworks' deflationists restrict their claims to the ontology and metaphysics of material objects (e.g. Sidelle [2002]; Hirsch [2005, 2009]; Chalmers [2009]). But Carnap's relegation of non-internal existence questions and assertions to 'pragmatic or empty' seems to be sweeping. He goes through various cases—Are there material

and 'Is post-fission C (with the left half of A's brain) identical to pre-fission A?' (in a situation where the right half of A's brain is just destroyed after the operation).

The idea that there may be coincidence, but that this is simply a product of the internal workings of our linguistic framework, seems implicit in Hirsch's work, and is suggested in my (1992). Karen Bennett explores—though ultimately rejects—the idea in her (2004). It is more explicitly defended by Amie Thomasson (2007) and Iris Einhauser (2011). I briefly note the possibility of similarly treating the 'only a and b condition' in (1999) and (2002).

⁵ Perhaps these (or some of them) can be cashed out in terms of vocabulary—if the term 'object' has, e.g. some sort of coherence constraint in its criteria of application, then the denial of the Universalist principle falls out. But it may be that the principle is more fundamental, and is the basis for saying there *is* such a constraint on 'object', or the values of the objectual quantifier.

objects, numbers, propositions, properties, space-time points? —and rejects them all (understood externally). And it at least seems that he does not really offer different arguments in each case. So the current Carnap-inspired deflationists would seem either to have different reasons, or else think that Carnap's reasons apply only more selectively.

To see how important these contrasts are, and what their implications might be, let us look a bit more closely at these seemingly different uses of 'framework'.

3.2 Carnapian and Ordinary Frameworks

Part of the difficulty of applying Carnap's discussion of frameworks in ESO to the contemporary appeal to frameworks comes from the very specific way in which Carnap introduces the notion of a framework. Frameworks are connected with "the acceptance of a certain sort of entity"—"if someone wishes to speak in his language about a new kind of entities, he has to introduce a system of new ways of speaking... we shall call this... the construction of a linguistic framework for the new entities in question" (206). Later, in the section "What does Acceptance of a Kind of Entities Mean?" he says "There may be new names for particular entities of the kind in question; but some such names may already occur in the language *before the introduction of the framework*" (213, italics mine), and he gives, as examples 'blue' and 'house' "before the framework of properties is introduced". So "the occurrence of constants of the type in question regarded as names of entities of the new kind after the new framework is introduced is not a sure sign of the acceptance of the new kind of entities" (213). What *is* distinctive of the framework, and 'the acceptance of the entities', is the introduction of a general term—like 'thing' or 'number'—and variables, for which the new entities are values.

I belabor the quotes, because they indicate that Carnap's notion of a framework, and speaking within a framework, is rather more specific than the term might suggest, and which contemporary deflationists seem to have in mind. For Carnap, one is only using the framework of material objects when one introduces 'object' and the relevant quantifiers/variables. Let us introduce the notion of a 'framework core'. This might be, for instance, all of English that includes what are later considered 'property terms' ('blue', 'walks') when we have the framework of properties. But before the essential framework elements are introduced, we still have 'The house is blue', 6 which Carnap seems to allow as meaningful.⁷ Indeed, it is this meaningfulness that allows the framework-specific claims—the existence claims—to be meaningful. The important thing about frameworks, for Carnap, is not their provision of meaning *in general*, but their provision of meaning for—and generally, the unproblematic truth of—general existential

⁶ Perhaps this occurs in the thing framework; if one wants to be technical, we can speak of the 'property framework core'.

 $^{^7}$ I am not sure whether this conflicts with Hofweber (this volume), who seems to suggest that just having what I call 'core' mathematics allows one to trivially conclude that there are numbers (pp. 5–6).

claims. And so, with existential claims as the focus, Carnap is not concerned to contrast pairs of frameworks (as contemporary deflationists do), which might give us alternate readings for *any* sort of claim, but to highlight the features of a *single* 'way of talking' to understand these existence claims.

In contrast, many disagreements contemporary deflationists are concerned with may arise without a framework—in Carnap's sense—at all. Of course, they can only be formulated generally if one uses the special framework apparatus. But the question of whether Fido still exists after neutering, or, if he does, whether he is extended through time the way he is through space, doesn't obviously depend upon, or only arise after one introduces, the special framework apparatus. And for contemporary deflationists, these disputes can already be verbal, due to differences in 'same' or 'Fido' or 'dog'. When the relevant general terms, like 'object' are introduced, there may be further verbal disputes, but they will be of the same sort. Such new disputes will undoubtedly be more systematic and general, but both new and old, what we have are terms which have a certain core commonality as used by both parties (e.g. 'dog', in each idiolect, will apply, at a time, to the same filled regions of space), but differ when we go beyond that, and so, overall, differ in meaning (the 'core commonality' is what allows the dispute to seem genuine, in contrast with the inability of the two meanings of 'bank' to generate longerthan-a-moment seemingly real disputes).8 A term like 'object' just gives us more of the same, though perhaps with a more systematic influence. So, in the Carnapian sense of 'framework', contemporary deflationists (a) are concerned with disagreements that are not differences between frameworks, or between those who do, and don't accept a given framework, and (b) don't see the 'crucial moment' in the generation of nongenuine disputes to occur when one adopts a given framework. For these reasons, existence questions are not largely singled out (except as they give rise to distinctive difficulties on whether they can be deflated)9-any emptiness, or relativity, in 'Does there exist an object composed of my ear and your toe?' is not fundamentally different from that of 'Would my dog perish upon being neutered? or 'Are the statue and clay distinct objects in one place at the same time?' And when contemporary deflationists urge differences of framework between Universalists and friends of common sense, or between three and four dimensionalists, these parties don't obviously differ in frameworks in Carnap's sense, even when they have such frameworks. So the two notions of 'framework' seem to cut across each other.

Further, most contemporary deflationists are not particularly concerned, as I say, with existence claims, nor do they think that the simple ability to form 'There are objects,' or infer 'There are objects' from 'There are tables'—the products of the distinctive features of Carnapian frameworks—bears on or settles any of the questions they are concerned with. Nihilists can form 'There are complex objects' as well as their opponents, and they can accept the validity of the above inference (but deny the

⁸ For more on this sort of analysis, see Sidelle (2007).

⁹ Sider (2009), Van Inwagen (2009), Hirsch (2009).
premise), so they need not differ from their opponents in the framework features to which Carnap draws our attention. Rather, contemporary deflationists focus largely on purported differences in the rules in a framework that can arise as much in the core as in the quantificational apparatus. Contemporary deflationists think competing metaphysicians differ in 'framework' in that they think they are using the same terms with different meanings or according to different rules. Even when these differences *are* due to different non-derived meanings of 'object',¹⁰ they are not differences that pertain to what Carnap seems to think is distinctive of frameworks. For contemporary deflationists, differences in rules people use in judging that some dog still exists are just as much 'framework differences' as differences that arise in connection with the more general terms. Furthermore, even non-derived differences in the use of 'object', which contemporary deflationists think can give rise to verbal disputes, are quite different from Carnap's difference between those who do, and those who don't, quantify and use the term 'object'.

3.3 Rapprochement?

To reduce some of this distance, it may help to remember Carnap's positive project showing that it is 'empiricistically acceptable' to hold that there are objects, or properties, or numbers.¹¹ This, of course, is why he is interested in existence statements in particular. Carnap's position here is that when you add the apparatus to the framework core that allows the general existence questions to be formulated, various general existence claims will come out true which require nothing more—either by way of confirmation or of truth—than more specific claims in the framework core. So, 'There are numbers' requires nothing more than—since it is entailed by—'There are seven trees in my yard' (entailed, that is, when we add the general 'number' and 'seven' as an instance, and allow variables for these numerical terms). So if the framework core is acceptable, so are the general existence claims. There is only a problem if we think—mistakenly—the existence claims assert, and so are committed to, something *further*.

We need to note that Carnap is plainly supposing that the framework core *is* empiricistically acceptable, and in doing so, is taking for granted that there are already rules in place governing the words and statements in that fragment—and so, that there is, in the more familiar and contemporary deflationist sense, a 'linguistic framework' in which these statements take place. So, even though Carnap does not focus upon these 'framework core' rules, in his view, there *are* such rules, and the supposition of such

¹⁰ If there are differences in the relevant first-order terms—if, e.g. one language includes 'turkey-trout' and the like—then when all these terms are allowed as substituends for 'object', there will be derived differences in the meaning of 'object'. Since these are generated from the framework core, *these* sorts of differences obviously are not interestingly due to the distinctive framework elements in Carnap's sense. By 'non-derived' differences, I mean differences that *start* with the more general terms—only these even have a *chance* of being due to that which makes one an acceptor of the thing framework.

¹¹ This is emphasized by Alspector-Kelly (2002).

rules is an essential part of his overall understanding of a linguistic framework. It is just that he is not here concerned with these rules and this feature of a framework, insofar as he is addressing a specific class of claims. It remains perfectly sensible to suppose that a pair of similar looking 'framework cores'—or derivatively, full Carnapian frameworks—might be related to each other in the way contemporary deflationists suggest different frameworks for talking about material objects are related, and in such a case, Carnap would agree, I take it, that the disputes in question were verbal.¹²

But the fact that Carnap can adopt this notion of a framework-or include a rule-sameness condition in order for two frameworks to count as the same-may still not seem particularly interesting. Particularly not if his analysis of the empty disputes he does address does not have the form of the contemporary deflationist analysis. Carnap's analysis, again, has two sides—existence questions do have a meaningful, if uninteresting reading, and they also have an empty reading. The empty reading is the external one, which can only be raised with a framework in place, and which asks, according to Carnap, about the status of the framework itself.¹³ How does this fit with the contemporary deflationists analysis of, say, the question whether mereological sums exist? The contemporary deflationist says that there is the Universalist framework, with its rules for 'object', 'compose', and the quantifiers, and there are other frameworks—including those of commonsense and the nihilist—in which these terms and quantifiers have different meanings. Thus, the claims do not contradict each other. On its face, this is not especially like Carnap's account. However, we can bring them closer together. While the contemporary deflationist focus here is on the difference in meaning—and so, absence of contradiction—in the pairs of claims ('There are/are not objects composed of random parts of turkeys and trouts'), it is nonetheless part of the story that each sentence is true within its own language, and in a manner similar to that in which Carnap sees existence claims as (more or less¹⁴) trivially true in the framework. Of course, details may differ-for Carnap, the 'triviality' comes from the relationship between 'object' and the relevant substituends, while for the contemporary deflationist, it comes from the rules governing 'object' themselves. But even this may not amount to much. After all, when 'object' and the rest are introduced to make for a Carnapian framework, more work needs to be done than simply to say 'wherever the following words occur- 'dog', 'house'...-'object', or an objectual variable, can be

¹⁴ 'More or less' because in non-logical frameworks, the truth of these claims will still depend on contingent features of the contents of space-time, albeit obvious and uncontroversial (e.g. there is dog-shaped matter).

¹² On the other hand, one may dispute with Carnap whether the framework core really *is* 'empiricistically acceptable'. Platonists might think the 'simple' sentences, like 'Grass is green' cannot be true if there are no properties (see Section 3.4). So the 'reduction' of the commitments of general existence claims to specific framework core claims—even if granted—only helps the empiricist if the core claims are so acceptable, and there has been no argument that this is so. (However, Carnap is addressing his remarks largely to other empiricists, and so assumes they will take this for granted.)

¹³ As Hofweber rightly points out (p. 17, this volume), strictly, for Carnap, there is not a (second) cognitively significant question asked on the second way of taking the question. I take my description here to be compatible with his.

substituted'. The rule needs to be more general and open-ended. And this is especially salient when Universalism is at issue, as it can be expected that there will be no constants for arbitrary sums until *after* one has 'adopted' that framework. So, even though he focuses on what seem to be the formal features of frameworks, we need *further rules*, generally stateable, governing the 'new' general terms. So, while Carnap is concerned with the difference between those who do and do not quantify, we again can find ambiguity-generating differences between terms here, not in the framework core, but in the new apparatus.

What, however, of Carnap's emphasis on the emptiness of external questions, and externality as the source of their emptiness? Here, we need to be careful. The emphasis of the contemporary deflationist in deflation, as we said, is looking at pairs of seemingly contradictory statements, and seeing them as actually involving different meanings, and so, for there to be no question on which the parties are disagreeing. The emphasis for Carnap comes from looking at two readings of certain claims, one of which seems true but non-ontological, and the other of which is ontological all right, but hard to make sense of. So it is the latter that is 'deflated', as is the question it is an attempt to answer. So for the contemporary deflationist, we have a contrast between two acceptable meanings, and for Carnap, a contrast between an acceptable meaning and a lack thereof. But we should not be misled here by the fact that in the contemporary deflationist case, we have two frameworks, and so are looking at differences between them, whereas Carnap is looking at the issue as it arises just in a single framework. So let's look at it that way: for Carnap, for each framework, there will be an internal and an external reading of the relevant questions (let's stick, for simplicity, with existence questions). The external reading of each claim will be meaningless; the internal of each will be straightforward. For contemporary deflationists, in focusing on the 'merely apparent' disagreement, we are looking at the internal readings. But this cannot be enough for the contemporary deflationist; it is not enough that the claims don't contradict each other-it needs to be the case that they cannot be reformulated so as to constitute a substantive dispute.¹⁵ And this is precisely what contemporary deflationists do think. So, for instance, the mere fact that when Universalists say 'There is something composed of my arm and your leg' and commonsense theories say 'There is not', the latter claim does not contradict the former, leaves entirely open that the meaning one of them assigns to 'thing' is in some way defective. Common sense might formulate such a claim by saying 'Sure, your sentence "There is something" may be true, but *really*, there isn't—in the way we might say "Really, there is no such property as being 'grue'". And if this is a meaningful, or possibly true claim (which is not just an 'emphatic' restatement of the internal claim), then the failure of the two actually spo-

¹⁵ Merricks (2000) makes vivid the need for such a further claim. His Realist's reply to the deflationist who simply says (in effect) that each side means something different by 'object' is roughly—'I don't how people conventionally talk—I am interested in metaphysics'. On the other hand, as Hirsch has emphasized, for the Realist, finding *an* issue on which the parties substantively disagree is not enough—it must plausibly be what is at issue.

ken sentences to contradict each other would be much less metaphilosophically interesting. Consequently, it must be—and is—part of the contemporary deflationist view that there is *no further question* that can sensibly be at issue. Which is to say, they see the statements as having two readings, one of which is uninterestingly true¹⁶ within the language of assertion, and the other of which—the 'really' version—they see as empty. Perhaps they aren't best described as thinking that the 'further' question asks about 'the reality of the realm of entities as a whole'—but the way we suggested Carnap meant this is as applicable to them as to him. (And here, then, we can drop the pretense that such internal and external readings are only available for existence statements, and so, that in the heart of Carnap's account, the 'framework defining elements' are especially important in principle—they are so only when the claims in question *involve* those elements.)

Thus, both analyses approach each other. The contemporary deflationist does think there is an 'external' question which 'lacks cognitive content' (or at any rate, cannot have a genuine answer)—though they often focus more on the internal readings, where the seeming contradiction dissolves—and Carnap does think that there are meaning differences that arise between frameworks, both in the framework core, and in the additional apparatus that makes it into a genuine framework—but because he is interested in particular existence questions—namely, those involving abstract entities—he is not interested in such meaning differences.

3.4 Too Far?

But have we not gone too far now? Let's put two claims together: (1) our just made claim, that contemporary deflationists can be seen as giving a Carnapian analysis of the current disputes in the metaphysics of material objects, and (2) our claim, suggested earlier, that Carnap offers a uniform analysis of all the disputes he considers, and gives no distinctive arguments against the legitimacy of any of the disputes or competing claims. These together would seem to entail that contemporary deflationists must side with Carnap in thinking that if the current metaphysical questions and claims are empty, so are all those Carnap discusses. But as we have noted, many contemporary deflationists don't agree with Carnap about the emptiness of various issues concerning the existence of abstracta, and almost none agree with him about the debate between realists and phenomenalists. Must I, then, give up (1) or (2)? Or must I think contemporary deflationists are inconsistent?

Here, I must confess to being somewhat deliberately ambiguous. Hopefully not too misleadingly so—I would like to think that the reader of Carnap who is conversant with contemporary deflationist views may think there is just the sort of tension I have worked to bring out, and perhaps would use it as a motivation to see the analyses as different. However, ambiguity there is, and it is in what I am calling an 'analysis' of a

¹⁶ Uninteresting, that is, from the 'serious' ontological point of view.

dispute. There are really two elements that need to be distinguished. The first—what I *have* been meaning by 'analysis'—is seeing the structure of the claims involved as arising from a linguistic system with rules, and such that certain questions can be uninterestingly answered given the rules plus whatever empirical or logical facts there are in the area the framework concerns, but also have a more 'ontologically serious' intended meaning. This latter question is then said to be meaningless, or a pseudo question, or empty. *This* is what I have argued is common. However, one can be excused for thinking that *also* included in the notion of 'analysis' is the *grounds* for thinking that the 'ontological' question is empty—but this, I do not intend (at least, not quite, as the sequel will explain).

We will return to the question of these grounds presently. First, however, we need to turn to Carnap's application of his approach to the Realist/Idealist dispute. This may raise questions about the general applicability of the approach, and also allow us to further delineate the question of whether contemporary deflationists can pick and choose where to accept a Carnapian deflation.

3.5 Realist, Idealists, and a Potential Problem for the Carnapian Analysis

The part of Carnap's discussion that comes closest in content to the contemporary deflationists is his consideration of the Realism/Phenomenalism debate, as all the others concern abstracta (possibly excepting space-time points). It is of particular significance for us to look at not just because of the proximity of content, but because most contemporary deflationists would not agree with Carnap's conclusion, that this dispute is empty. Thus, it particularly raises the issue of whether, or to what extent, they can be seen as endorsing their position on Carnapian grounds.

It is, however, a curious case. Carnap *presents* the disagreement as that between Realists and Subjective idealists, and as 'going on for centuries' (207). That would suggest we have Berkeley, at least, on one side, and Hobbes and most contemporary anglo-American philosophers on the other. But the question on which *they* disagree is not obviously whether objects exist, or even whether they 'really' exist, but whether they are made of mind-independent matter. This is a place where perhaps Carnap has made certain assumptions about ordinary or historical use which are questionable, and which may affect how he ought to formulate his view.

As Carnap presents it, there is the internal question of whether objects¹⁷ exist, which "no one would bother debating". Now, on my suggestion, the 'real' issue between Realists and Idealists is whether or not there is mind-independent matter.¹⁸ But there is linguistic variation among both Realists and Idealists. Berkeley, for example, seems to agree with Carnap in denying that ordinary object claims—claims in the framework of

¹⁷ Objects, presumably, like cows and trees—not numbers or propositions.

¹⁸ Perhaps also whether it is the cause of our 'objectish' experiences.

things—have 'metaphysical' requirements, viz. the existence of mind-independent matter.¹⁹ For that very reason, though, he does not represent himself by saying 'There are really no objects' or 'The system of objects doesn't really exist'. On the other hand, many (most) Realists disagree with Berkeley's linguistic assessments. They think that if Berkeley *were* right about the ideal constitution of the world, then there would be *no* tables and trees nor objects generally. *They*, then, could happily agree with Carnap that the issue between Idealists and Realists can be represented as 'Whether or not there are (really) any things'—but given their semantics, the 'ordinary' claims are not unproblematic and free of ontological commitments. And of course, we also have Idealists and Realists each of the different semantic stripe—Idealists who think matter *is* required,²⁰ and so say 'There are no objects', and Realists who think the ordinary claims could be true even if there were no matter.²¹

Now, of course, we can expect Carnap to deny that whether there is mind-independent matter is a genuine metaphysical question with cognitive content (it would be absurd to think he could have thought it was a real issue, but that the issue between Realists and Idealists was not—although his failure to mention it directly is still disturbing). But for the moment, let us focus on how he *does* formulate the issue, which takes no direct account of that.

The obvious difficulty is that it is hard to find combinations of views here which simultaneously make the ordinary 'internal' questions metaphysically unproblematic *and* which make the ontological question properly formulable as 'Are there really objects'? Carnap seems to suppose that most users of the thing framework—Realist and Idealist alike—have a metaphysics-free understanding of their claims, but that it is *also* straightforward to think of the Idealist as denying that there 'really are' objects. But in fact, it seems that if they have that understanding, their question is 'Are they composed of mind-independent matter?' And *this* does not seem like a question 'about the framework' or 'the reality of the system', unless 'really' is just being used to mean 'composed of matter'.

Further, these semantic complications can also arise in other realms, though there are perhaps fewer representatives of the 'odd' semantics. One can imagine nominalists (or even Platonists) who think that since (or if) there are not 'really' numbers, or properties, then claims made within the framework of numbers, or properties—at least, the existence claims—are false.²² Carnap would no doubt find them silly, but we can

¹⁹ Of course, there *is*, for Berkeley, the metaphysical requirement of God to provide steady perception or its possibility. But this seems a metaphysical addition, rather than part of the semantic framework. At any rate, it is not essential to idealism.

 20 And the options are expanded if we consider an 'ultra-Berkeleyan' position on 'matter', which doesn't require *it* to be mind-independent.

²¹ This last, for instance, is argued by Chalmers (2005) in his discussion of whether, if it turned out that we lived in *The Matrix*, our ordinary object claims would be false.

²² This seems related to Hofweber's distinction between whether a discourse should be understood 'internally' (30–31). However, I expect Carnap would not be much moved by the external questions—the 'domain conditions' readings of existence claims—Hofweber thinks are (at least often) factual: 'Is there a language external object that is (an) F?' sounds a lot like 'Are there really F's?'

imagine them. Then, we *could* see the issue between the Nominalist and Platonist as over the truth of the 'internal' claims. Additionally, to come to the present, there may be, say, Universalists (or commonsense ontologists) who *also* load their terms, so they *would* deny (assert) that there are random mereological sums, if this were just linguistically determined, and not a 'metaphysical' matter.²³ In short, wherever we have these disputes, there may be people on either side for whom the supposedly internal questions and claims are shot through with the metaphysical assumptions that divide them, and of them, it would not be true that there was a metaphysically unproblematic reading of the existence claim, and then a troublesome one of Carnap's 'external' sort.

Now, I do think there is a problem with Carnap's account of the Realism/Idealism dispute. However, it doesn't seem right that the tenability of his whole apparatus should rest upon whether all or most philosophers historically engaged in these disputes intended to use their (mostly) ordinary terms in metaphysically loaded ways. Even if some people have done so, we can still give Carnap, in each domain, a metaphysically unloaded reading of the terms and sentences,24 and we can have general terms and variables of the sort Carnap tells us determine a framework, thus giving us metaphysically unloaded true existence claims, which cannot be the subject matter of the metaphysical disputes. Whether or not this is the standard language, it can determine Carnapian framework-internal versions of the disputed claims.²⁵ And Carnap can say that philosophers' ontological disputes are versions of those claims, which are taken to 'go beyond' their internal brothers. So, the mere fact that some people may 'metaphysically load' their seemingly internal claims does not itself pose a serious problem for Carnap's analysis, so long as there is a metaphysically innocent way of formulating frameworks in which the relevant sentences come out true. That can be the framework Carnap intends.26

However, we are left with the fact that even if we imagine Realists and Idealists who share an innocent framework, the question between them is still 'Is there mind-independent matter?' and not 'Are there really objects?'—not an external version of the straightforward internal question. Of course, we allow that Carnap thinks *this* question is empty. But here, the problematic feature cannot be that it is an 'overwrought'

²⁶ Of course, if almost everyone clearly spoke the loaded language, it might be of little diagnostic significance that there was an innocent framework in which the contested sentences come out unproblematically true. But it is quite plausible that even those who *do* speak loaded languages at least *sometimes* speak as if they didn't—that when not philosophically preoccupied, the metaphysics is not so important. This reflects the fact that the innocent language is at least *very close* to the loaded language, which can suffice to give psychological force to Carnap's diagnosis.

²³ Merricks, for one, suggested sympathy with such a position in contrast to the more neutral reading I suggested of philosophers' first-order claims about objects, in comments on what later became my (2002).

 $^{^{24}}$ Or if we can't, maybe there *is* a problem with his account in that domain. But in all our cases, there seems to be a good prima facie case for thinking that there are unproblematic readings—'I have a blue house,'I clapped my hands three times'—which will track standard use quite well.

²⁵ Notice that the 'unloaded' framework is different from the framework core. Most obviously, unloaded frameworks contain the general and quantificational apparatus distinctive of Carnapian frameworks.

version of some sentence that has a metaphysically unloaded internal reading. Carnap may have an objection, but it doesn't come from his framework-theoretic analysis.

This problem may not carry over to the other cases Carnap discusses. In many, or perhaps all of the others, it is not so clear that the 'metaphysical requirement' can be clearly formulated in a way so distinct from the target existence question, as for Realism/Idealism. Can the Platonist and nominalist articulate the issue between them other than by 'There really are properties', or something pretty transparently equivalent, yet no more informative? If not, it will remain plausible that the issue seemingly between the sides *is* 'Are there F's?' and so, there *is* a question with an unproblematic internal reading (in our innocent framework), and a metaphysical reading which *can* be thought of as 'asking about the system of entities as a whole'. Consequently, it may be that despite seeming potentially general, the difficulty for Carnap's analysis of the Realist/Idealist dispute is in fact isolated.

Let's sum things up. We took issue with Carnap's framework-based analysis of the Realist/Idealist dispute. We noted that the issue can be seen as over whether objects exist only if one makes certain historically doubtful assumptions about how idealists and realists use the word 'object' (and other object nouns), and that even then, the ontological dispute could not be seen as involving a metaphysically problematic reading of a question which has an unproblematic, internal reading. We also saw that the doubtful assumption may sometimes fail in the other disputes Carnap discusses involving abstract objects, or that between current metaphysicians, and so worried whether this might show his analysis fails in general. In response, we saw that Carnap can stipulate that the frameworks he has in mind are metaphysically innocent. But while this avoids worries specific to how, say, Realists load their terms for objects, it still did not give us a plausible reading of the (pseudo-)issue in dispute between Realists and Idealists as a problematic version of an unproblematic framework-internal question. On the other hand, the fact that his analysis of Realism/Idealism fails, because there is a 'metaphysical' claim on which the sides disagree which is not the 'external' version of an internally unproblematic claim, does not necessarily carry over to the other cases. For there, there is not obviously a way to understand the metaphysical claim other than as one which, for Carnap, is equivalent to 'asking about the system of entities as a whole'. In short, once we sort out two issues that arise when trying to apply Carnap's analysis to the Realism/Idealism dispute—(1) Might the framework be metaphysically loaded? and (2) 'Is there a way to formulate the 'extra' question other than by adding 'really' to the internal question?'-we see that the former may be a general problem, but a superficial one, while the latter is serious, but not straightforwardly general.

So, maybe Carnap was just wrong to apply his analysis to this particular dispute but in general, the question will always be 'Do we have some other way to understand this disagreement (question/claims)?' For those about which we *do*, Carnap will be mistaken; for those about which we don't, he may be right. And so, one may 'pick and choose' about the tenability of Carnap's general sort of analysis as applied to different questions and domains. Contemporary deflationists typically think we *can* understand the question about mind-independent matter, but not about whether O has *really* survived to t2, or whether the *whole* object is *really* present at distinct times, bearing different properties, or whether there are *really* two coinciding objects. And they may vary, in quite unpredictable ways, about whether we can understand what it would be for numbers or properties to genuinely exist, aside from the framework-internal use of Carnap's existential assertion-making apparatus.

Now, it is crucial to see that this is all quite independent of my (or contemporary deflationists') thinking that there is a genuine issue between Realists and Idealists. I believe that there is, and that it is the issue of whether there is mind-independent matter. But even if Carnap is right that this ('Is there mind-independent matter?') is a pseudo-issue, it will still not be properly diagnosed by his internal/external framework analysis. So there are two questions: First, can the supposed metaphysical issue between the views be formulated in a way other than 'Is P really true?' or some equivalent? Second, is this question—either the new one or simply 'Is P really true?'—empty? Our discussion here has not touched on the second question-either with respect to whether Carnap may have reasons for thinking whether there is mind-independent matter is an empty question or his reasons for thinking the externally meant existence questions are. However, if his reasons are specifically tied to his seeing ontological questions as external readings of questions with metaphysically innocuous internal answers, then we should expect that they won't provide reasons to doubt the genuineness of the Realist/Idealist debate (since there is a different way of formulating the 'real' issue)-but we should also not expect that the genuineness of *this* debate gives us reason to doubt his reasons for finding the others to be empty. And so, in a way, Carnap's inclusion of the Realist/Idealist debate is rather a red herring as regards the overall soundness of his approach and the question of whether contemporary deflationists can find their complaints presaged in Carnap. Nonetheless, it has hopefully still been useful for sorting out different issues involved in Carnap's analysis, and allowing us to see two different questions that need to be addressed in considering whether a Carnapian-deflationary analysis is plausible with respect to some question. I have suggested that contemporary deflationists can think the first question (Can the issue be formulated other than 'Is P really true?') gets the answer 'Yes' for the Realist/Idealist debate (so the Carnapian analysis does not apply), 'No' for debates between current metaphysicians of material objects, and also that the extra question in the case of the former debate ('Is there mind-independent matter?') is meaningful, and the latter (say, 'Is there really something composed of turkey x and trout y?') is not. So contemporary deflationists are under no pressure to accept Carnap's rejection of the Realism/Idealism dispute. On the other hand, I have put the issues in the metaphysics of material objects on the same side of the fence as those of abstract objects, and so it remains possible that one cannot consistently accept a Carnapian rejection of these current debates, but also think some of those concerning abstract objects are genuine. I have already indicated one way to avoid this-if one thinks that in these other disputes, the issue can be formulated relevantly differently from 'Are there really F's?' But put that aside. There remains the further question of what Carnap's reasons are for thinking that *when* (what we have called above) his 'analysis' *is* correct, the external question *is* empty, whether these must hold across the board, and whether these reasons are shared by contemporary deflationists. This then, returns us to the questions with which we ended the previous section.

3.6 Carnap's Skepticism

We've seen that Carnap thinks that ontological questions, when asked 'the philosophers' way,' are external questions and that they are empty. We have raised some doubts about whether all these questions *are* 'external questions about the system', but let's focus on those that *are* reasonably so understood, that is, those where the questions are naturally formulated as 'Are there *really* F's?' I have urged that this 'first stage of analysis' leaves open the question of *why* he thinks these questions are empty. It is finally time to turn to this issue. Our focus here will first be to extract the reasons Carnap gives, without critical concerns or attention to whether contemporary deflationists would or should find them compelling.

His first dismissal of these questions comes in his discussion of 'the world of things'. We have already wondered whether he has properly understood this dispute, but our concern now is what comes *after* what I above called 'the analysis'—not the basic setup, but the subsequent argument that the relevant question is empty. He first notes 'internal' questions like 'Did King Arthur actually live?' and says "The concept of reality occurring in these internal questions is an empirical, scientific, non-metaphysical concept. To recognize something as a real thing... means to succeed in incorporating it into the system of things at a particular space-time position so that it fits together with the other things recognized as real, according to the rules of the framework" (207). This notion of 'real', combined with understanding external questions as 'asking about the reality of the system,' renders the question as 'Is the system of material things an element in the scientific sense means to be an element of the system; hence this concept cannot be meaningfully applied to the system itself" (207).

He goes on to say (and we will have to see whether this is the same or a different argument),

To accept the thing world means nothing more than to accept a certain form of language, in other words, to accept rules for forming statements and for testing, accepting or rejecting them. The acceptance of the thing language leads, on the basis of observations made, also to the acceptance, belief and assertion of certain statements. But the thesis of the reality of the thing world cannot be among these statements, because it cannot be formulated in the thing language or, it seems, in any other theoretical language. (208)

In the first quote, Carnap says that to be real is to be an element of some system, but of the system itself, it cannot meaningfully be asked if it is an element of the system. This

seems like a sort of logical, or category mistake, to ask if the system as a whole is real. Notice also that while 'real' in this case involves spatio-temporal location and relation to other objects, this is plainly meant just as a special case. Reality, within other systems, will require fitting in, in different ways, among a different set of entities, but the general idea is the same. Thus, if this argument renders the Realism/Idealism dispute empty (as Carnap says it does-207), it does so for all ontological disputes, regardless of domain. In the second quote, Carnap seems to offer a deflationary overall account which would apply to any objects of quantification (at least, of the appropriately general level), that there is nothing more to accepting the objects than adopting a certain way of speaking, which includes certain rules for testing claims involving these terms, or terms which are their instances. This might *itself* be a deflationary account—but Carnap goes on to consider 'the thesis of the reality of the thing world', and rather than give the deflationary account ('The answer is yes, trivially'), he says it 'cannot be formulated'. Presumably, he means that it cannot be formulated taken externally or ontologically-'it cannot be formulated in the thing language'-which, in the context, looks like it means that there are no rules for 'testing, accepting or rejecting' it.

Though Carnap doesn't distinguish his claims, this looks like a different charge. After all, mightn't there be rules for testing it that did not "place it in the system of material things"? One thing Carnap could have in mind is that if one could test it, then it would be an *internal* question, not a philosophical one.²⁷ (We'll come back to this.) But why would it thereby have to be internal to the material thing framework? And notice his claim that "it cannot be formulated in the thing language or ... any other theoretical language". This goes beyond the argument of the first quote, which seems to depend on taking the ontological claim to assert of 'the thing world' that it is an element of the system including items within the thing world. If we allow that the claim about the reality of the thing world may take place in another theoretical language, the relevant claim need not amount to the purportedly incoherent claim that the system itself is appropriately related to other elements of the system. The second quote rules out this possibility, left open by the first. On the other hand, it looks, on its face, like an assertion rather than an argument. Why can it not be formulated? Indeed, is not the 'serious ontologist' to be expected to respond to the deflationary proposal in the second quote along these lines: 'Okay—I'll give you the 'weak' notion of existence you get just by speaking the 'thing' language, and so, I accept that when asking whether there are *really* material objects, this is not a question answered by applying the rules of that framework. So, if existence statements must be made 'in a framework', these occur in another framework. What entitles you to say these claims cannot be formulated in 'any other theoretical language'?28

²⁷ This may be some of what Thomasson (Chapter 6, this volume) has in mind in insisting that there is no meaning that could be given to the questions which will not be either 'easy ontology' or meaningless (p. 138). For dissent, see n. 28 and the text below, as well as the discussion of realism vs. idealism.

²⁸ This general reply to the 'linguistic interpretation' form of deflationism is fairly common; it is presented neatly by Merricks (2000), though not specifically in connection with the 'internal/external'

Two answers suggest themselves here. First, perhaps tying back into the first quote, is a formal claim. Carnap might argue that if it were to be formulated in another language, then it wouldn't be the question aimed at. After all, 'Are there really tables?' employs the term 'table', which has a certain meaning determined by the thing framework. In an *internal* question, 'really' might contrast with 'are you just hallucinating?' But if the external question is formulated in another theoretical framework, 'table', and terms for other objects, as well as 'object' itself, will mean something different, and so, even if in this other framework, the 'reality' of objects is asserted-indeed, even according to rules for testing this-it will not assert the reality of the elements of the thing framework.²⁹ Since this argument depends on a general claim about meaning being determined by frameworks, and about internal and ontological questions needing to be asked in different frameworks, the claim here would again be formal and general, applying to all ontological questions regardless of domain. (While this is a possible understanding of Carnap's claim, it seems doubtful as a reading. Carnap doesn't say that if you were to formulate it in another framework, it wouldn't be the question you wanted. He says it *can't be formulated*.)

A second reply is not based on purely formal considerations. Rather, Carnap is simply looking at the question of the reality of the system of things. If you think of it straightforwardly, questions of reality, in this context, are questions of belonging to the system, of the relevant rules for the truth of certain statements being satisfied. That, surely, is not what is meant. So, what *can* it be? Here, the preface about 'accepting a system of entities' simply being a matter of adopting a certain way of talking comes into play. The Realist is demanding something more, and something-by Carnap's lights-which cannot be tested (if it could, the "controversy [would not] go on for centuries without ever being solved" [207]). So, on this more straightforward reading, the reason the question cannot be formulated in any theoretical language is because as it is intended, potential answers have no rules for being tested, and so, do not belong to any legitimate framework. Here, it is not trivial in the same way that 'ontological' questions in all domains will be empty, for perhaps some of them *can* be tested. But Carnap plainly thinks we *do* get the same negative results. In discussing 'Are there numbers?' after noting that this is obviously not meant in the trivial internal way, and suggesting that what the ontologist might offer is "the question of whether or not numbers have a certain metaphysical characteristic called reality...or subsistence or status of independent entities," he says "Unfortunately, these philosophers have so far not given a formulation of their question in terms of the common scientific language. Therefore our judgment must be that they have not succeeded in giving to the external question and to the possible answers any cognitive content" (209). So even though on this read-

distinction. If I read him correctly, this may also be the problem Eklund (Chapter 8, this volume) is raising in connection with what he calls the 'language pluralist' reading of frameworks (pp. 167–9).

²⁹ Or, given his claim about what it is for an object to exist, it may be the word 'exists' that has the important meaning change.

ing it is (formally) an 'open question' whether external questions in other domains will be empty, we see—here and throughout—that Carnap thinks the answer is clear.

So, we have three potential Carnapian arguments for the emptiness of ontological claims/questions:

- 1. Ontological questions ask whether the system as a whole is an element of the system, which is meaningless.
- 2. Ontological assertions would have to be made in a different framework from that which one is trying to target, and so would not constitute claims about the relevant domain.
- 3. Ontological assertions cannot be tested, and so are meaningless.

Rather close to the last argument are some of Carnap's final remarks. In discussing Platonism vs. nominalism in mathematics, he says,

...one philosopher says: "I believe that there are numbers as real entities..." His nominalistic opponent replies: "You are wrong; there are no numbers."...I cannot think of any possible evidence that would be regarded as relevant by both philosophers, and therefore, if actually found, would decide the controversy or at least make one of the opposite theses more probable than the other... Therefore I feel compelled to regard the external question as a pseudo-question, until both parties to the controversy offer a common interpretation of the question as a cognitive question; this would involve an indication of possible evidence regarded as relevant by both sides." (219)

This is clearly related to (3), though it differs in two subtle ways, both interesting for our purposes. First, it focuses not on the content of a given claim, but on a dispute. It requires, for a genuine dispute, *differentiating* evidence that *both sides* would count. (3) only requires evidence for an assertion. It would seem possible for S to hold that there was evidence for his assertion, while S' would deny this. However, in this case, it is natural to offer this Carnapian reading: possible evidence makes it meaningful within a given framework; if S' does not recognize that evidence, S' is working in a different framework. Thus, the assertions are meaningful taken internally (as per (3)), but there is not a meaningful external disagreement (unless, perhaps, it is a disagreement about which is the meaning of the sentence [taken physically] in some language spoken by both S and S'-an option not discussed by Carnap, but taken more seriously by contemporary deflationists, especially Hirsch [2002a,b, 2005, 2009]). This is interesting for us, since it looks rather like the contemporary deflationist account; it fits our earlier finding that though Carnap focuses on existence assertions rather than disputes, he can give an account of disputes rather like the contemporary deflationists, and the contemporary deflationist must reject that there is a *further* dispute. The second difference from (3) above is that while it explicitly asks for a test of the claim as a criterion of meaningfulness, the later quote first asks for a common interpretation, which is then said to require the existence of agreed upon tests. Obviously, Carnap thinks the former entails the latter-but we might disagree with this, while still wanting the former (an agreed upon interpretation). Of course, the common interpretation must be sensible. But we might, then, distinguish two claims:

(3a) Ontological assertions cannot be tested

and

(3b) Ontological assertions cannot be understood—we have no sense of what it would *be* for them to be true, beyond the metaphysically unproblematic conditions specified *within* a framework.³⁰

Carnap clearly believes both (3a) and (3b), and it does rather seem that he believes (3b) *because* he believes (3a). Nonetheless, it may not go *too* far beyond the bounds of interpretive charity, since he seems to distinguish the two in the quote just given, to suggest (3b)—which *itself* would render ontological assertions empty—as another of his reasons, which perhaps he would hold onto even if he jettisoned the requirement of testability. At any rate, even if it is a stretch to attribute this to Carnap, it is, especially with this quote, something at least *suggested* among Carnap's reasons, and is a potentially less verificationist-looking version of (3). The discerning reader will see why I am interested in this reading.

So far as I can see, this exhausts Carnap's reasons for thinking the ontological questions, understood externally, are empty. There is some later discussion related to (1)— Carnap explains how various of the 'metaphysical' sounding questions—"Are propositions mind-dependent?"—have internally determined answers (210–11). But this is all of a piece with (1) in saying that we have sensible questions and answers which are *not* the intended ones. So I don't think there is a distinct argument here.

If this is all correct, what should we make of these arguments (a) in themselves, (b) as attributable to contemporary deflationists, and (c) as available for selective use, so that one can deflate disputes in the metaphysics of material objects, but maybe not those about numbers or properties?

It should be apparent from my assimilation of (1) to Carnap's comments about questions about propositions, that (1), as an argument, really takes the form of an openended challenge: Find me a sensible meaning for the question *other than* the internal one. After all, the claim that the question asks whether the system as a whole is an element of the system is premised on the claim that this is what *internal* uses of 'real' mean. So it only shows nonsense on *that* reading—but by hypothesis, that is *not* what is being asked. Consequently, there is not, as it may have seemed at first blush, a quasi-formal reason for rejecting external questions, but only for rejecting them *taken in a certain way*, and it is then left for the metaphysician to come up with some *other* sensi-

³⁰ (3b) may look like, but should be distinguished from, a flat assertion that the ontological claims are meaningless. It asserts a *specific inability* to attribute *truth* conditions to the claim, to understand *what it requires of the world*, or, in the case of a dispute, what would be required for the one claim to be true *as opposed to the other*. Challenging the *question* is denying that we can understand what *difference* in the world the supposed answer would make. Contrast Biggs and Wilson (Chapter 4, this volume), who seem to think the only reasons Carnap (or a Carnapian?) might find the questions/claims problematic are epistemological (98–100). I expect that even if Carnap were furnished with their inferences to the best explanation, he would continue to fail to understand the relevant claims as proposed explanda—but it also seems Biggs and Wilson are focused on metaphysical claims more generally, than the particular targets of ESO.

ble reading. I am not sure whether to say, then, that (1) is *not* really an argument—after all, a challenge grounded in a reasonable suspicion and a diagnosis of what may have confused or mislead one's opponent can reasonably, I think, be called an argument. But there is no *further* argument, and certainly no *formal* one, that any attempt to make sense of the external question must generate nonsense. (And so, *as* non-formal, there is also nothing here that would logically require one to think deflation works across the board. One could think the challenge to find a meaningful interpretation can be met in some cases, but not others.)

(2), while it does look more formal and so general, is simply not plausible if taken as a general claim about meaning, and if it is a special claim about 'real' or 'exists', why can these not be satisfied by the entities in the target framework? Notice that even if the meaning changed, the referents of the terms could still be the same, and so, the claims could be about the relevant targets. I reiterate here that I do not really think Carnap offers this argument—it just might occur to one in the context.

That brings us to (3), which the reader will have noted has a rather verificationisty-looking air about it. I need not rehearse all the problems that have plagued that theory of meaning, even if we allow 'tests' to not require anything as stringent as that called for by classical verificationists. But even without this, it is too epistemological.³¹ We noted that almost all contemporary deflationists find the Realist/Idealist dispute genuine, but they have no commitment to there being some test which could settle it. On the other hand, (3b) seems more plausibly something contemporary deflationists would accept. The absence of a test may be evidence, or reason to suspect there is no sensible issue here—and indeed, I suspect this has moved many contemporary deflationists. But the claim is (3b), which (3a) only suggests-it does not entail it. Of course, so understood, we are really back at the challenge of (1). (3b) is not an independent argument, so much as a report that the challenge of (1) has not been—and in the opinion of the challenger, cannot be-met. But combined with (1) is it more interesting, and this gives more of a role, in Carnap's negative argument, to his positive argument: the fact that we can give some meaning to the claim takes some of the air out of the feeling that 'there must be something to it' understood more metaphysically.³²

If this is right, it means that Carnap really doesn't have a 'full-fledged' argument, aside from the verificationist-looking one. He rather has a challenge, though it is a challenge backed up with a supporting diagnosis and reasons for suspicion, and which is based on what I have called his analysis. This can be *supplemented* by further arguments, but (a) Carnap does not provide them, and (b) there is no special reason—at least, in Carnap—for thinking that if one has such supporting arguments, they need to

³¹ Elliott Sober has suggested to me that Carnap ought to be read in a primarily epistemological way. Whether or not this is so, it is clear that contemporary deflationists looking back to him are making stronger claims.

 $^{^{32}}$ This, I think, helps explain why Carnap even bothers to talk about the 'trivial' internal readings of the problem claims, despite Hofweber's correct point that almost surely, no one has ever actually meant to ask about this by 'Are there numbers', etc. (p. 25).

apply to all the disputes we have been considering. It would not be surprising if deflationary arguments against numbers carried over to other abstract entities—at least, all these have being abstract in common, so further arguments might depend on this feature in general, rather than something specific to numbers, say. But there would be no general reason to expect these to carry over to the metaphysics of material objects, or vice versa.

I believe what we *do* find in contemporary deflationists is *precisely* the *specific* sort of doubt about the sensibility of a further interpretation for the 'ontologically serious' readings of the questions and claims, as presented in (3b)—although some of them *do* have further, supporting arguments.³³ But these supporting arguments do not carry over, in any obvious way, to the issues about abstract objects. Thus, in one sense of 'Carnap's reasons', these contemporary deflationists can be seen as sharing Carnap's reasons for their deflationism. But in a more specific way, verificationism aside, Carnap's reasons are really only Carnap's suspicions. Thus, my earlier equivocal assessment of whether contemporary deflationists share not only his analysis, but his reasons.

3.7 Conclusion

There may be something a little peculiar in saying that contemporary deflationists accept a Carnapian line of argument, while also saying that they are free to disagree with Carnap about the entire range of disputes about abstract objects. But that is perhaps in part because I have not really found-verificationism aside-a real argument in Carnap. Instead, we have found a certain sort of analysis which gives rise to a challenge to find another meaning for the relevant questions and claims, a challenge Carnap thought could not be met. Contemporary deflationists agree with Carnap on this in their own domain, but typically think he was just mistaken in the case of Realism and Idealism. But while I have argued that they are not committed to agree with him about the abstract object cases, it may be that if they think seriously about why they think no further sense can be made of the metaphysics of material objects claims, they will find similarly about abstract objects. On the other hand, Hirsch has given a specific condition for the absence of a real issue in the metaphysics of material objects case, which he thinks is not satisfied in the property case (2009). This leaves me with a rather weak conclusion, but I have been less concerned with furthering the debate, than simply looking at some seeming difficulties in putting together contemporary reasoning with Carnap's analysis, and seeing whether the first glance similarity, which may seem more problematic at second glance, might return at third.³⁴

³³ See the papers in n. 1. While Chalmers and Sidelle's arguments have some overlap, Hirsch's and Thomasson's are quite different.

³⁴ Many thanks to Martha Gibson, Elliott Sober, and Dennis Stampe for their encouragement, friendship, and helpful comments on an earlier draft.

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Carnap, the Necessary A Posteriori, and Metaphysical Anti-realism

Stephen Biggs and Jessica Wilson

4.1 Introduction

In Meaning and Necessity (1947/1950), Carnap advances an intensional semantic framework on which, as per typical empiricist assumption, modal claims are true in virtue of semantical rules alone, without reference to extralinguistic facts, and so are a priori. In 'Empiricism, Semantics, and Ontology' (1950), Carnap advances an epistemic-ontological framework on which, as per typical empiricist assumption, metaphysical claims are either trivial or meaningless, since lacking any means of substantive confirmation. Carnap carried out these projects two decades before Kripke influentially argued, in Naming and Necessity (1972/1980), that some modal claims are true, at least in part, in virtue of extralinguistic facts, and so are a posteriori. How should a neo-Carnapian respond to Kripke's results? Some (notably, Chalmers and Jackson, in their joint 2001 and elsewhere) have suggested that an extension of intensional semantics along lines of "epistemic two-dimensionalism" can accommodate Kripke's results while largely preserving commitment to the semantics-based a priority of modal claims. Here we consider how best to implement this suggestion, and how the resulting semantics fits with Carnap's second project. We find that the most promising (and most Carnapian!) post-Kripke version of Carnap's semantics-abductive two-dimensionalism-presupposes an epistemology which undermines Carnap's metaphysical anti-realism.

4.2 The Project of Meaning and Necessity

Carnap aims, in *Meaning and Necessity*, to achieve two goals that are in the first instance empiricist but which may be seen as generally valuable: first, to provide an account of meaning that avoids certain metaphysical and semantic difficulties associated with Fregean "sense"; second, to use the associated semantic framework as a basis for interpreting and providing a logic for modal claims, in line with empiricist scruples.

Carnap aims to satisfy the first goal by constructing a semantic framework on which "to know the meaning of [a sentence] is to know in which of the possible cases it would be true and which not" (10); more generally, the suggestion is that the meaning of a given expression is given by its extension in each possible case or "state description", where a state description is a maximal collection of sentences representing a ("Leibnizian") possible world. Since expressions have extensions in *possible* cases, meaning involves more than actual extension, and accounting for meaning invokes *modality*. Carnap calls the non-extensional aspect of meaning 'intension'.

Since we do not have experience of non-actual possibilities, how are we to identify the extensions of expressions in such cases, in order to identify their intensions? As we'll discuss in Section 4.3.1, Carnap's preferred strategy for associating intensions with expressions involves a pragmatically interpreted application of broadly abductive principles.¹ Independent of this strategy, there is a clear sense in which Carnapian intensions are an improvement over Fregean senses, from an empiricist point of view, in that access to an intension is ultimately a matter of access to (a range of) *extensions*, rather than a matter of rational or other grasp of a mind-independent abstractum.² Supposing that there is no in-principle problem for empiricists' identifying the extension of a given expression given how the world actually is, one might naturally think that there is no in-principle problem for empiricists' identifying the extension of a given expression given how the world might possibly be. The type of information is the same, after all: no new metaphysical category, requiring a potentially new form of epistemological access, is required.

Satisfaction of Carnap's second goal—of providing an account of modal claims on which their truth is a matter of meaning rather than irreducibly modal mind-independent reality—emerges from satisfaction of the first. Intensions in hand, Carnap introduces *L-truth* as a specification of "what Leibniz called necessary truth and Kant analytic truth" (1947/1950, 8). The connection emerges as follows. A sentence is L-true just in case it is true in all state descriptions; furthermore, given that the intensions encoding what is true in state descriptions do so purely as a matter of meaning, it follows that a sentence is L-true just in case it follows from "semantical rules... alone without any reference to (extra-linguistic) facts" (1947/1950, 10). Continuing on: a sentence is L-false just in case it is false in every state description. One sentence L-implies another just in case the latter is true in every state description in which the former is true. Two sentences are L-equivalent just in case the sentence expressing their equivalence is L-true. And a sentence is L-determinate just in case it is either L-true or L-false, where

¹ Reflecting the pragmatic supposition, when engaging in exegesis of Carnap's view we speak of speakers' "identifying" rather than of their "knowing" which intension is associated with a given expression.

² Hence notwithstanding that Carnap says that "Frege's concept of sense is very similar to that of intension" (129), he also cites the usual empiricist concerns with reification of abstracta, and highlights that the concepts he appeals to "do not involve a hypostatization" of the sort that Frege associated with sense, since "our statements belong to, or can be translated into, the general language of science" (22)—that is, can be cashed in terms of experienced extensions.

the contrast here is with "L-indeterminate" claims that are "factual", "synthetic", or "contingent".³ Carnap maintains that every modal sentence is L-determinate; hence on his view the truth of every modal sentence follows from semantic rules alone, independent of extralinguistic facts, as empiricists typically suppose.

4.3 The Necessary a Posteriori and Epistemic Two-Dimensionalism (E2D)

Kripke's (1972/1980) insights threaten to undermine Carnap's account of meaning and modality. Kripke rejects both descriptivist theories of meaning (of the sort tacitly presupposed in Carnap's intensional semantics) and the conflation of necessity with a priority. He argues, more specifically, that some names and natural kind predicates do not correspond to cognitively accessible reference-fixing descriptions, but are rather to some extent directly referential, such that certain modal claims involving such expressions can be known only a posteriori. If Kripke is right, as we suppose in what follows, then it seems Carnap must be wrong.

Despite this threat, one might think that there is no deep difficulty for post-Kripke Carnap here, for as Jackson (1998), Chalmers and Jackson (2001), and Chalmers (2006) (among others) have argued, Kripke's insights can be preserved within a broadly descriptivist, intensional semantic framework, consonant in large part with the supposition that what is necessary is a matter of meaning, by means of *epistemic two-dimensionalism* (E2D).

The basic E2D strategy for neo-Carnapian accommodation of a posteriori necessities is as follows. To start, the suggestion is that even though we cannot know all modal claims a priori, we (or idealized versions of us) can have fairly comprehensive, semantically-based, a priori knowledge of the intensions underlying all necessary truths, including necessary a posteriori truths.⁴ In particular, for any necessary a posteriori truth *T*, knowing the semantic rules governing a sentence that expresses *T*, which includes knowing the rules for each sub-sentential expression comprising that sentence, puts one in position to know two conditionals that together serve as the ultimate foundation of *T*'s truth.

So, for example, using only our knowledge of semantic rules, we can discover that (i) if we are in a world that would make true a state description according to which the watery stuff is H_2O , then the actual extension of 'water' is H_2O , and (ii) if the actual extension of 'water' is H_2O , then H_2O is the extension of 'water' in all possible worlds. Likewise, *mutatis mutandis*, for worlds that would make true state

 $^{^3}$ "In general, factual knowledge is needed for establishing the truth-value of a given sentence. However, if the sentence is L-determinate [...], the semantical rules suffice for establishing its truth value or, in other words, its extension" (69).

⁴ Note that, as per the "epistemic" in "epistemic two-dimensionalism", the strategy departs from Carnap's supposition that the association of intensions with expressions is a pragmatic matter. We follow up on this difference below.

descriptions according to which the watery stuff is other than H_2O . According to E2D, then, all knowledge of modality is ultimately grounded in meaning, with semantically based a priori knowledge of conditionals providing the bridge from empirical contingencies (e.g., that the actual watery stuff is H_2O) to a posteriori necessities (e.g., that water is necessarily H_2O). On this picture, the only role for empirical investigation in modal knowledge lies in determining which world is (or which relevant non-modal facts are) actual; this fact (these facts) in hand, we can then discharge the antecedent of the relevant a priori conditionals, and gain access to the unconditional necessary truths.

The semantics at issue in E2D is two-dimensional in that many expressions, including those that figure in a posteriori necessities, have two interrelated intensions, associated with the two types of conditionals above. The primary intension of an expression *E* is a function that takes as input any state-description *s* (now representing a centered possible world, or scenario⁵), and delivers as output the extension E would have if s were actually true—hence, (i). The secondary intension for an expression E is a function that takes as input both the state-description s that is actually true (again, representing a centered world, or scenario), and any world w, and delivers as output the extension of *E* at *w*. We find it useful to introduce another intension: the generalized secondary intension for an expression E takes as input any (centered) state description s and any world w, and delivers as output the extension E would have at w if s were actual-hence, (ii). The E2D strategy presupposes that both primary intensions and generalized secondary intensions can be known a priori, on the basis of semantic competence alone. Hence, on this view, our semantically based knowledge of the primary and generalized secondary intensions for natural kind expressions provides an ultimate foundation for our knowledge of ordinary secondary intensions and corresponding a posteriori necessities, even though only experience can discharge the antecedent of conditionals such as (i).

This much a posteriority is arguably compatible with the empiricist tenet that modal claims are true in virtue of meaning—at least, we suppose here that this is correct. One could think of this supposition as regulating what we mean by 'grounds' when we say that semantically based knowledge *grounds* all modal knowledge. More generally, this much a posteriority is arguably compatible with our having, as is desirable independently of empiricism, significant access to the space of possibility, prior to the end of empirical inquiry.

4.3.1 Carnap's intensional semantics and E2D

Does E2D in fact provide a suitably neo-Carnapian accommodation of a posteriori necessities? In order to answer this question, we need first to acknowledge and assess two potential "mismatches" between Carnap's semantics and E2D.

⁵ A centered world, or scenario, is effectively a world along with an indexical perspective, allowing for meaning to reflect, e.g., the facts "around here".

The first pertains to Carnap's supposition that the association of intensions with expressions is a pragmatic rather than epistemic matter, in contrast with the epistemic interpretation associated with any version of E2D, which aims not just to conform to empiricism, but also to make generally desirable sense of our epistemic access to a suitably wide range of modal claims. Chalmers and others assume that taking the assignment of intensions to expressions to be an epistemic matter doesn't prevent the resulting semantics from being properly "Carnapian"; and in the text to follow we also take this for granted, in order to more directly consider the bearing of the E2D strategy on Carnap's metaphysical anti-realism. In Appendix A to this chapter, however, we consider Carnap's reasons for taking intensions to be pragmatically determined, and argue that they are uncompelling, and are moreover undermined by Kripke's results.

The second and more important potential mismatch, which will mainly concern us in what follows, is between Carnap's account of "explication" as the preferred methodology for identifying intensions, and the conceiving-based approach presupposed by Chalmers and Jackson (2001) in their more-or-less standard interpretation of E2D. In Section 4.4 we present these differing approaches to one's knowledge of intensions, highlighting the abductive nature of explication and Carnap's reasons for thinking that the distinctive features of abduction are needed to overcome the widespread "vagueness" of natural kind expressions/concepts; we then argue that an abductive approach is indeed required for this purpose. Correspondingly, we maintain that the most promising—and most Carnapian—implementation of the E2D strategy relies on *abduction* rather than *conceiving* as the preferred epistemology of intensions.

Perhaps the main concern with interpreting E2D in this fashion cites the supposition that the results of abduction are not a priori; in Section 4.5 we address this objection, arguing that the results of idealized abduction are reasonably seen as being a priori, and in particular, as being as a priori as the results of idealized conceiving. The results of Sections 4.4 and 4.5 then provide setup for the discussion, in Section 4.6, of how a suitably neo-Carnapian accommodation of the necessary a posteriori bears upon Carnap's metaphysical anti-realism.

4.4 Conceiving vs. Abduction as the Epistemology of Intensions

Chalmers and Jackson interpret E2D as involving a conceiving-based epistemology of intensions, according to which the association of intensions with expressions can and should proceed by means of conceiving.

What is conceiving? Chalmers and Jackson take conceivability and a priority to go hand in hand, such that a sentence token is conceivable if and only if it is not ruled out a priori. Chalmers elaborates: "a sentence token is a priori when it expresses an a priori thought", where an a priori thought is one that "can be conclusively non-experientially justified on idealized rational reflection" (2006, 98); a thought is justified conclusively

if its actual justification ensures the truth of any sentence expressing it; and a thought is justified non-experientially if it is justified on the basis of idealized rational reflection alone. The reflection at issue is (suitably) idealized if any belief that it produces corresponds to a sentence that can be known by a hypothetical thinker who can entertain any scenario, possesses exactly the concepts and language that we possess, can know whatever can be known through rational reflection on the same, and can know nothing else. (Henceforth, such idealization is presumed.) So, a sentence token is conceivable if and only if the thought expressing its denial is not (conclusively) justified on the basis of rational reflection alone, and is inconceivable otherwise.

What is "rational reflection"? The rough answer in Chalmers and Jackson (2001) is that rational reflection is a process in which implicit conceptual analysis manifests as explicit judgments about the extensions of one's expressions at scenarios or scenarioworld pairs.⁶ How does this process work? Most important for our purposes is that, in contrast to the method that Carnap prefers, Chalmers and Jackson are explicit that rational reflection excludes appeals to theoretical virtues (2001, 342).⁷ They are less clear about the positive details, though the intended contrast with theoretical virtues, along with the supposition that the results of conceiving are "conclusive", suggests that the process involves some infallible analogue to perception or intuition, enabling one to deduce, see, or intuit the contents of and relations among concepts.

4.4.1 Indeterminacy and conceiving

Why does Carnap reject a conceiving-based method of identifying intensions? Roughly, Carnap thinks both that many natural kind expressions are indeterminate,⁸ and that conceiving cannot resolve this indeterminacy; these commitments in turn imply that conceiving cannot ground our access to a wide range of intensions and corresponding modal truths. Since we agree with Carnap, we will develop this position on his behalf. Specifically, we will argue that many natural kind expressions/concepts are indeterminate, and that attempts to overcome this indeterminacy by a conceiving-based epistemology of intensions fail; we will then explain why such failures render conceiving unsuited for purposes of implementing the E2D strategy, and more generally, unsuited for any intensional semantics aiming to ensure access to an appropriately wide range of modal truths.⁹

⁶ We often cite Chalmers and Jackson's joint paper (2001), which explores conceptual analysis and reductive explanation, not two-dimensional semantics, because it clarifies issues related to E2D.

⁷ See Biggs and Wilson (forthcoming) for discussion of and objections to Chalmers' and Jackson's reasons for thinking this.

⁸ Carnap rather uses the term "vague", but we will follow common practice of using "indeterminacy" to refer to the general phenomenon, restricting "vagueness" to cases of indeterminacy involving sorites-susceptible expressions/concepts. The use of 'indeterminacy' here has nothing to do, of course, with Carnap's talk of 'L-indeterminate' (broadly contingent) statements.

⁹ Following Carnap, we move freely from discussing expressions, which we take to have their standard interpretations, to discussing the concepts that they express; hence our use of 'expressions/concepts'.

We start with Mark Wilson's (1982, 2006) claim that many natural kind predicates are indeterminate.¹⁰ The general idea behind Wilson's claim is that such indeterminacy is indicated by a seeming arbitrariness of application of natural kind predicates to new cases. To take his illustrative example, members of an isolated tribe might or might not include airplanes in the extension of 'bird', depending on whether they happen to first encounter an airplane overhead or on the ground. If whether 'bird' applies to the airplane depends on historical accident, then, Wilson plausibly claims, the full range of extensions of the expression is not antecedently determined.

The historical record supplies other cases where application of an expression reflects factors whose influence is not plausibly seen as antecedently encoded in the expression/ concept. 'Acid' initially was taken to refer to only oxygenated substances, but was later applied to HCl, for theoretical reasons now largely discarded; dispute remains over whether Newtonian uses of 'mass' apply in relativistic contexts; the decision to classify whales as mammals was a controversial affair; and there was a recent resolution declassifying Pluto as a planet. Ordering phenomena in Sorites series also suggest that arbitrary or extrinsic factors can influence predicate application; the breaking point in applications of 'blue', for example, may depend non-systematically both on where in the spectrum one starts and on psychological factors (cf., Raffman 1994). Summing up: sometimes the factors influencing predicate application will involve historical accident, as in Wilson's toy case; sometimes they will involve non-demonstrative reasoning, as for 'acid', 'mass', 'mammals', and 'planet'; sometimes they will involve variable psychological features. In all these sorts of situation, it appears that decisions to apply (or not) the predicate at issue depend on factors whose influence is not antecedently encoded in that predicate.11

To see the challenge that such widespread indeterminacy poses to E2D, suppose momentarily that *every* natural kind expression is partly, insuperably indeterminate. In that case, for any natural kind expression E, there is a state description at which we cannot identify the extension of E. As such, we can identify neither the primary intension nor the generalized secondary intension of E—since these take us to the extension of E at *each* state description, and state-description/world pair. But according to E2D, knowledge of these intensions grounds knowledge of modal truths, including truths involving natural kinds. Hence if every natural kind expression is partly, insuperably indeterminate, E2D cannot explain our access to modality.

The point can be made another way. The "core thesis" of E2D (Chalmers 2006a, §3.1) is that a sentence is a priori just in case its primary intension is true at every scenario;

¹⁰ Here we draw upon our discussion in (Biggs and Wilson, in progress *a*).

¹¹ Distinguishing expressions and concepts for the moment: one might see such cases as suggesting that, while natural kind predicates determinately express a certain concept, many such concepts are indeterminate, in that they may not, in and of themselves, determine their application (or that of associated predicates) to the full range of scenarios; alternatively, one might see such cases as suggesting that it is indeterminate which of multiple completely determinate concepts a given natural kind predicate expresses. Either way, the difficulty to be next discussed will apply.

this thesis in turn implies that a sentence is not a priori if its primary intension is insuperably indeterminate at even one scenario. It follows that if all natural kind expressions are partly, insuperably indeterminate, then no sentences are a priori, and thus, contrary to E2D, our knowledge of modal claims involving natural kinds cannot be grounded in semantically based, a priori knowledge of intensions.

To be sure, the claim that *all* natural kind terms are indeterminate is likely too strong. Even supposing some such terms are determinate, however, the moral of the previous discussion is that on E2D, the more insuperable indeterminacy there is, the fewer modal truths we are in position to know. As such, E2D's primary goal—of making sense of our having (in principle) knowledge of a *wide range* of modal truths, including those involving natural kinds, is incompatible with widespread, insuperable indeterminacy of natural kind expressions. Any significant degree of indeterminacy, then, poses a serious challenge to E2D, and to any intensional semantics with similar aims.

Chalmers claims, nonetheless, that such indeterminacy presents "no problem" for E2D:

There may of course be borderline cases in which it is indeterminate whether a concept would refer to a certain object if a given world turned out to be actual. This is no problem: we can allow indeterminacies in a primary intension, as we sometimes allow indeterminacies in reference in our own world. (1996, 364)

Chalmers is right that E2D can tolerate some indeterminacy, such that the primary intension of some expressions cannot be known a priori. But as above, E2D cannot *both* allow that indeterminacy is widespread, *and* explain our access to a wide range of modal truths.

Anticipating this difficulty, Chalmers suggests that conceivers can eliminate indeterminacy from primary intensions by foreseeing relevant accidents. For example, in re Wilson's toy case, Chalmers says that conceivers "might try to classify these two different scenarios [airplane first seen in the sky or on the ground, respectively] as different ways for the actual world to turn out, and therefore retain a fixed, detailed primary intension" (1996, 364). On this broadly supervaluationist strategy, the fully determinate primary intension of 'bird' includes planes in its extension if the tribe members first see a plane overhead but not if they first see it grounded. Either way, according to Chalmers, the indeterminacy is resolved.

Chalmers' suggestion has potential re Wilson's concerns only if a conceiver can foresee how intensions are sensitive to accidents. But as we see it, a deeper lesson of Wilson's case is that the influence of accidents cannot be foreseen. Determinism and such aside, there might be divergence of application even relative to the same historical facts; after all, there are any number of respects of dissimilarity between airplanes and birds, even when the former are in flight, and a minor difference in attention to these features (or even mood) might result in a different decision about whether 'bird' applies. We can register, post hoc, extensions resulting from whatever decision was in fact made; but why think that idealized conceivers would be in position to antecedently identify the corresponding extensions and intensions? Moreover, Chalmers' suggestion only addresses cases where historical accident influences decisions about extension. As above, other factors may similarly undermine the supposition that intensions are antecedently encoded in concepts, as when, for example, theoretical virtues enter into decisions about how to classify HCl, Newtonian mass, whales, and Pluto.¹²

In presupposing a conceiving-based epistemology, then, Chalmers and Jackson's version of E2D fails to be appropriately Carnapian, not just in ignoring Carnap's preferred method for identifying intensions, but also in failing to address the legitimate concerns about conceptual indeterminacy leading Carnap to that method—concerns that have only gained in support since Carnap's time. E2D understood as involving a conceiving-based epistemology cannot accommodate the necessary a posteriori, and thus fails to achieve its primary aim.¹³

4.4.2 Carnap's abductive route to intensions

Does an intensional semantics that presupposes Carnap's preferred method fare better? We begin to answer this question by sketching his method, as found in his account of explication. Roughly, explication is "making more exact" (which Carnap understands as "replacing") a "vague or not quite exact concept" with a "newly constructed, more exact concept" (1947/1956, 7–8). Although explication is central to Carnap's semantics, *Meaning and Necessity* offers few details about the method, about how one makes a concept more exact or chooses an appropriate replacement. Instead, explication is there introduced through illustrative examples, as when Carnap offers L-truth as the result of explicating "logical or necessary or analytic truth" (1947/1950, 7).

In *Logical Foundations of Probability* (1950), Carnap provides the needed details, opening with a chapter on explication. He first reiterates what explication is:

The task of *explication* consists in transforming a given more or less inexact concept into an exact one or, rather, in replacing the first by the second. We call the given concept (or the term used for it) the *explicandum*, and the exact concept proposed to take the place of the first (or the term proposed for it) the *explicatum*. (italics in text, 1950, 3)¹⁴

 12 One should not take theoretical virtues to be built into intensions such that, e.g., if an appeal to fruitfulness pushes chemists to apply 'acid' to HCl at some scenario, then it follows that the intension of 'acid' includes that virtue, and gives it special importance. For building theoretical virtues into intensions radically multiplies associated concepts, requiring a distinct concept for each combination of virtues. Moreover, this implausible result has the implausible consequence that most if not all disagreement about the extension of one's expressions is non-substantive; see Biggs and Wilson in progress *a* for further discussion.

¹³ These concerns about indeterminacy are not the only challenges for E2D. In Biggs and Wilson in progress *a*, we argue that a range of seemingly compelling objections to E2D, including those due to Byrne and Pryor (2006), Schroeter (e.g., 2004), and Block and Stalnaker (1999), only target E2D when implemented using a conceiving-based epistemology of intensions, and that given an abduction-based epistemology of intensions of the sort offered below, E2D can meet such challenges.

¹⁴ Carnap cites Kant and Husserl as inspirations for his use of 'explication' (1950, 3): for Kant, judgments that affirm analyticities are 'explicative'; for Husserl, 'Explikat' are precisifications of confused, unarticulated senses. Carnap's take resembles Husserl's more closely than Kant's in that Kant thinks of explications

Carnap then turns to how explication works or, equivalently, to what makes one explicatum for a given explicandum superior to another. He begins with four conditions that a "concept must fulfil... in order to be an adequate explicatum for a given explicandum: (1) similarity to the explicandum, (2) exactness, (3) fruitfulness, (4) simplicity" (1950, 5). Although Carnap offers (1)-(4) as mere conditions on adequacy, he treats them as criterial, so that for any explicandum D and any explicata T and T^* , if T is most similar to D, most exact, most fruitful, and most simple, then one should choose T over T^* as the explicatum for D. Taken together, then, these conditions constitute a method for choosing among competing intensions for a given concept. Of course, an explicatum may be superior to alternatives in one respect but inferior in another—T may be most similar to D while T^* is most fruitful, for example. Accordingly, one needs a way to balance the competing criteria. Carnap provides a rough account, according to which fruitfulness is paramount.

On Carnap's account of explication, then, one chooses among competing intensions for a given expression (i.e., competing explicata for a given explicandum) by using *theoretical virtues*, balanced in a particular way. We take this method to be an instance of inference to the best explanation—that is, of *abduction*. Abduction, as we think of it, proceeds by assessing the extent to which a range of candidate theories satisfies the (perhaps competing) dictates of various theoretical virtues—parsimony, comprehensiveness, fruitfulness, and so on. To use abduction when deciding among competing theories is to choose the theory (*explanans, explicatum*) that best explains some target (*explanandum, explicandum*), where underlying theoretical virtues, appropriately balanced, determine how theories are ranked. Accordingly, Carnap offers an abductionbased method for identifying intensions.

How can abduction, so characterized, help one choose among competing intensions? Answering this question requires identifying the theories and targets at issue, and then showing how appealing to theoretical virtues can help one choose among those theories.

We take theories of intensions to be the candidate intensions themselves, i.e., the competing explicata. Candidate primary intensions for 'water', for example, might hold that, in scenarios considered as actual, 'water' refers to, respectively, (i) the basis of life; (ii) the watery stuff; (iii) H_2O . These theories might aim to explain, among other things, what we would take the extension of 'water' to be if the actual world had turned out to be one where the watery stuff was perfectly coincident with XYZ rather than H_2O . How might theoretical virtues enter into ranking these theories of the primary intension of 'water'? Most saliently, the theory in (iii) is in one respect *less explanatorily*

as merely decomposing explicanda, as identifying the predicates already contained therein, while Husserl thinks of explications as (potentially) extending beyond explicanda, albeit in a principled way. Carnap also suggests that his use of 'explication', 'explicandum', and 'explicata' resemble Langford's use of 'analysis', 'analysandum', and 'analysans'; that his views on explication resemble Moore's views on analysis, as articulated by Schillp; and that his thinking about explication resembles Naess' thinking about 'precisation' (8). Beaney (2004) suggests that Frege's views on analysis also may have (perhaps indirectly) influenced Carnap.

comprehensive than its competitors, since it cannot explain the thoughts of those contemplating hypothetical scenarios, or the actions of those in hypothetical scenarios, in which the watery stuff is/is coincident with any substance other than H₂O.

Similarly, we take theories of generalized secondary intensions to be the candidate intensions themselves. The candidate secondary intensions of 'water', for example, might express that, in any world considered as counterfactual relative to an "H₂O-scenario" considered as actual, 'water' refers to, respectively, (i) the basis of life; (ii) the watery stuff; (iii) H₂O. These theories might aim to explain, among other things, that the actual extensions of 'water' and 'H₂O' perfectly coincide. How might theoretical virtues enter into ranking these theories? Plausibly, the theory at issue in (iii), in identifying the secondary intensions of 'water' and 'H₂O', explains the perfect coincidence of the actual extensions of these expressions in a more *ontologically parsimonious* way than its competitors.¹⁵

An abduction-based method for identifying intensions, then, provides a basis for choosing among competing intensions, no less than a conceiving-based method.¹⁶

4.4.3 The widespread indeterminacy of natural kind expressions, and the need for abduction

An abduction-based method, moreover, succeeds where a conceiving-based method fails, in overcoming conceptual indeterminacy. Consider Wilson's toy case. When deciding how to apply an expression in a given scenario, abductors can consider not only historical accident and psychological variability, but also any non-demonstrative rational considerations that might push one way or another, for theoretical virtues can encode any such considerations. Accordingly, abduction, unlike conceiving, is potentially *productive*. Consequently, abductors need not rely, post hoc, on historical or other facts along the way to identifying intensions, but may consider, even independent of such facts, what decisions *would* or *should* be made, through the proper use of abduction. More broadly, since abduction can rationally transcend what expressions antecedently encode, an abduction-based method has the potential to overcome each of the varieties of indeterminacy discussed earlier, extending applications of natural

¹⁵ In developing an abduction-based modal epistemology, Biggs (2011) considers how claims about necessity and contingency provide (better or worse) explanations of various facts. That work transfers readily to the present discussion. Importantly, the above sketch leaves open which virtues are at issue, and how they should be balanced. We leave these details open both because one can see how abduction can resolve indeterminacy without entering into such details, and because no specific set of virtues or way of balancing is uncontroversial. Such flexibility, in our view, is a feature, not a bug, of this method. For more on abduction, see Lipton (1991/2004).

¹⁶ Lavers (this volume) also offers a detailed discussion of explication, in the course of arguing that Carnap's support for ontological relativism in "Empiricism, Semantics, and Ontology" turns on the claim that neither 'truth' nor 'reference' has a unique explication. Kraut (this volume) also discusses explication as "a meaning analysis or a reductive account of truth conditions", intimating that it is, "content-preserving" (p. 37). As we note in Appendix A, Carnap initially suggests that explication needn't be content-preserving, but in his reply to Strawson he is ambivalent about how content-preserving explication must be. kind expressions to new scenarios, on ultimately rational grounds. While more could be said about this issue, we suspect that similar considerations drove Carnap's preference for an abduction-based method, and as such we anticipate that he would, and neo-Carnapians should, find these considerations compelling.

Let's sum up the results thus far. The initial question that concerns us is whether knowledge of necessary a posteriori truths can be accommodated within a broadly Carnapian framework on which modal claims are true in virtue of semantical rules, known a priori. The E2D strategy seems well-suited for this purpose, but the usual understanding of this strategy, as relying on a conceiving-based epistemology of intensions, is at odds with Carnap's explication-based means of identifying intensions, and in any case is moreover unable to overcome the conceptual indeterminacy that motivated Carnap's reliance on explication in the first place. If, however, the E2D strategy is implemented using an abduction-based epistemology of intensions, such indeterminacy can be overcome, in a way consonant with Carnap's explication-based approach. So far, so good, then, for a neo-Carnapian treatment of the necessary a posteriori.

4.5 The A Priori Status of the Products of Abductive Deliberation

Perhaps the most pressing objection to the suggestion that a properly Carnapian version of E2D should appeal to an abductive rather than a conceiving-based epistemology of intensions is that E2D requires that our access to intensions be a priori; but, it is claimed, the results of abductive deliberation are a posteriori. We reply, perhaps surprisingly, that the results of abduction are appropriately a priori.¹⁷

What makes knowledge *a priori*? To start, note that experience can play four different roles in knowledge formation. Say one knows that *p*. Then...

- 1. Experience might play a role in acquiring the concepts that are required to think *p*.
- 2. Experience might play a role in knowing the evidence that is required to know that *p*.
- 3. Experience might play a role in knowing that the inferential procedures deployed in coming to know that *p* are epistemically significant (i.e., have justificatory force).
- 4. Experience might play a role in acquiring/coming-to-use those procedures.

If knowing that *p* does not involve experience's playing any of the roles in 1–4, then that knowledge would be a priori. But can knowledge be a priori even if experience plays an inescapable role along some of 1–4?

¹⁷ In (Biggs and Wilson forthcoming) we additionally consider an objection according to which Chalmers and Jackson's reason for excluding theoretical virtues from conceiving undermines an abduction-based epistemology of intensions; we reply that their assessment rests on a misunderstanding of what theoretical virtues are, and thus, does not threaten an abduction-based epistemology of intensions.

Let's first consider how advocates of a conceiving-based epistemology answer this question. In re 1: advocates of a conceiving-based epistemology follow the crowd in allowing that knowledge can be a priori even if experience is needed to acquire relevant concepts. For example, knowledge that bachelors are unmarried can be a priori even if experience must play a role in acquiring concepts expressed by 'bachelor' and 'male'. In re 2: advocates of a conceiving-based epistemology maintain that knowledge that *p* is a posteriori if experience must play a role in acquiring the evidence required to know *p*. For example, knowledge that water is necessarily H₂O is a posteriori, since experience plays an inescapable role in knowing that the watery stuff is actually H₂O. That said, advocates of a conceiving-based epistemology maintain, as per the discussion in S2, that such a posteriori knowledge is largely "grounded in the a priori": while one cannot know that 'water' refers to H₂O in all possible worlds without learning through experience that water is actually H₂O, nonetheless the conditional claim that *if* water is actually H₂O, then it is necessarily so, falls out of relevant intensions which are known a priori.

In re 3: advocates of a conceiving-based epistemology maintain that knowledge that *p* is a posteriori if experience plays a role in establishing that the procedures deployed in coming to know that *p* are epistemically significant, and they deny that experience is needed in order to establish the epistemic significance of conceiving. In re 4: advocates of a conceiving-based epistemology do not, so far as we can tell, explicitly address whether experience plays a role in learning how to conceive. That said, it would not be surprising if experience *does* play an important role in learning to conceive—as we all know, our students often need encouragement to think in an appropriately imaginative way about what is possible rather than about (just) what is actual. In any case, that advocates of a conceiving-based epistemology do not explicitly come down *against* experience playing this role itself suggests that even if it does, they would (reasonably, we think) not take this to undermine their claim that the products of conceiving are a priori.

How do advocates of an abductive epistemology of intensions—how do we—view the bearing of roles 1–4 on a priority? To start, we take exactly the same stance on 1 and 2 as do advocates of a conceiving-based epistemology. In re 1: we maintain that knowledge can be a priori even if experience is needed to acquire relevant concepts. In re 2: we maintain that knowledge is a posteriori if experience must play a role in acquiring the evidence required to know it, although some such knowledge—in particular, knowledge of a posteriori necessities—is nonetheless largely grounded in the a priori.

We also agree with advocates of a conceiving-based epistemology in re 3: we maintain that knowledge that p is a posteriori if experience plays a role in establishing that the procedures deployed in coming to know that p are epistemically significant. So, given our advocacy of an abductive epistemology of intensions, we must accept that the epistemic significance of abduction and underlying theoretical virtues can be established a priori.

While this claim is uncommon, we think there is good reason to accept it, on the broadly transcendental ground that the epistemic significance of abduction is a

necessary precondition for the possibility of right reasoning. The transcendental claim is motivated, in turn, by its being the case that the choice of a theory T^* over a competing theory T scoring at least as well, and in some cases better, on every theoretical virtue, would clearly be *irrational*. So, for example, the choice of a theory T^* over a competing theory T, where T^* and T score equally well on all theoretical virtues *except* that T^* is more convoluted than T, would clearly be *irrational*. Moreover, such a choice would be irrational *no matter what the world was like*. It is correspondingly impossible to think of right reasoning as proceeding via a principle that, other things being equal, one should choose the most convoluted theory; and similarly for other counter-abductive principles. Hence we can know a priori that "counter-abduction" isn't epistemically significant. Similarly, the choice of a theory T that does as well as and sometimes better than its competitors, on every theoretical virtue, would clearly be *rational*—and such a choice would be rational *no matter what the world was like*. Hence we can know a priori that abduction and underlying theoretical virtues are epistemically significant.¹⁸

We think, though not everyone may follow us in this, that the above asymmetry is illuminated by the broadly transcendental supposition that both abduction and underlying theoretical virtues are *constitutive of human reasoning*—are as core to right thinking as principles of logical inference (c Kant 1781/1998)—so that the epistemic significance of abduction and underlying theoretical virtues is a necessary precondition for the possibility of human reasoning. The claim that abductive inference is constitutive of human reasoning is, moreover, independently plausible, in being supported by considerations from cognitive psychology (Gelman and Markham 1986; Feeney and Heit 2007).¹⁹ We will address an objection to our claim that experience is not needed to establish the epistemic status of abduction shortly, but we take it that, antecedent to down-the-line objections, the previous considerations serve as reasonable prima facie motivation for our position on 3.

Finally, in re 4: we maintain, as advocates of a conceiving-based epistemology may do, that even if some experience is required in order to acquire or apply the inferential process at issue, this need not impugn the status as a priori of the deliverances of the process. To be sure, there is a difference with a conceiving-based epistemology here, since notwithstanding that we are natural born abductors (as per Gelman and Markham 1986; Feeney and Heit 2007), experience can surely *tweak parameters* associated with abductive principles, as it can affect the sample size one requires for inductive generalization. But, importantly, such tweaking is compatible with

¹⁸ One might object that it would or could be rational to choose the most convoluted theory in any world where convoluted theories tend to be true. In Biggs and Wilson (in progress *b*), we address this objection, arguing that it rests on a mistake, in failing to distinguish facts from normative epistemic principles.

¹⁹ These considerations also indicate that the sense of 'transcendental' at issue here is compatible with a naturalist worldview, according to which philosophical investigations are broadly continuous with those of the sciences. See also the analogy to the principles and parameters account of grammar, to be shortly discussed.

abduction's being an innate, and indeed necessary, component of our rational cognitive economy.

Compare the principles and parameters approach to grammar (cf. Chomsky and Lasnik 1993), according to which experience can tweak the parameters of an innate grammar. In the latter case, the role played by experience involves giving broadly contingent content to parameters in grammatical structures that are in the relevant sense necessary, in being determined independently of experience and common to all speakers of anything we would recognize as language. Similarly, in the case of abduction, the role played by experience involves giving broadly contingent content to parameters in epistemic structures that are in the relevant sense necessary, in being determined independently of experience, and common to all thinkers engaging in anything we would recognize as right reasoning. Closer to home, we see the role played by experience in tweaking abductive parameters as relevantly like that played in the acquiring of concepts: in both cases, experience fills in certain aspects of the *content* needed to engage in epistemic deliberation, without undermining the broadly formal or structural reasons (such as those we gave above for abduction and associated theoretical virtues, in re 3) for thinking that the products of such deliberation are a priori. We thus maintain that even if experience plays a role in re 4, this does not prevent the products of abduction from being a priori.²⁰

Summing up: the deliverances of an abduction-based epistemology are reasonably taken to be a priori, and, moreover, are reasonably taken to be as a priori as the deliverances of a conceiving-based epistemology. If conceiving can deliver a priori knowledge of intensions, then so can abduction.²¹

²⁰ Williamson (2007) agrees that applying concepts to hypothetical cases in order to identify their extensions at various scenarios is part of a central method of philosophical theorizing. He is less inclined than we are, however, to think of knowledge that the results from deploying that method as a priori, on grounds that experience plays an ineliminable role in learning how to apply concepts to scenarios. As per our discussion of role 4, however, we think that even if experience does play such a role, this role is irrelevant to the a priority of knowledge acquired by using those methods. It is moreover worth noting that Williamson and we agree about the big picture, even if we disagree about details. He claims that "we must focus on the ways in which that knowledge [obtained by consideration of hypothetical scenarios] differs from both the stereotype of *a priori* knowledge and from the stereotype of *a posteriori* knowledge" (190). Our discussion of 1–4 does what Williamson prescribes; namely, it addresses the ways in which knowledge acquired through consideration of hypothetical scenarios is a priori and ways in which knowledge is a posteriori.

²¹ Eklund (this volume) expresses sympathy with the claim that abduction is relevantly a priori, criticizing Hirsh (2009) and Hawthorne (2009) for presupposing that speculative, theoretical reasoning, including (for example) appeals to simplicity, delivers only a posteriori justification. Here we register that while Hirsh clearly presupposes that such reasoning delivers only a posteriori justification, Hawthorne may not. Hawthorne (2009) aims to show, against Hirsch, that metaphysicians' methods of belief formation are often on all fours with scientists' methods. This equity claim is consistent with metaphysicians' methods delivering a priori justification, provided that the relevant methods of scientists can do so. And elsewhere, Hawthorne expresses sympathy for the view that abduction can deliver a priori justification for belief in conditionals the antecedent of which describes an "experiential life history", and the consequent of which is whichever theory best explains some aspect of that life history (2002, 252); he also maintains that these conditionals are central to knowing metaphysical claims. For further discussion of the a priority of abduction, including how Hawthorne's view bears on this issue, see Biggs and Wilson (in progress *b*).

4.6 The Undermining of Carnap's Metaphysical Anti-realism

We have so far argued that a properly neo-Carnapian treatment of a posteriori necessities can implement the E2D strategy, understood as relying on an abductive epistemology of intensions. Call the E2D strategy, so understood, 'abductive two-dimensionalism'. Does a shift to abductive two-dimensionalism, as providing a new route to the a priori identification of necessary truths, have ramifications for other aspects of Carnap's philosophy? Yes. Most strikingly, it undermines Carnap's metaphysical anti-realism.

In 'Empiricism, Semantics, and Ontology', Carnap distinguishes two kinds of ontological question (or claim), expressible by appeal to the notion of a linguistic framework—a language with semantic rules sufficient for engaging in verificationistically acceptable discourse. On Carnap's account, the numbers framework, for example, is partly constituted by rules for proof-theoretically (analytically) confirming the existence of numbers (5, primes over 100, etc.), and the physical object framework is partly constituted by rules for empirically (synthetically) confirming the existence of physical objects (tables, electrons, etc.). Carnap's distinction between kinds of ontological questions is then cashed as a distinction between questions asked either 'internal' to some framework, or 'external' to any framework: internal questions have associated analytic or synthetic verification conditions, and so typically make sense; external questions do not have associated verification conditions, and so never make sense. Unlike mathematical or scientific questions; hence his metaphysical anti-realism.

Though Carnap put his point in linguistic terms, the deeper source of his concern was his conviction that there are no appropriate standards of confirmation for metaphysical claims (see Wilson 2010). It is this supposed failure, after all, that prevents metaphysical questions/claims from being asked/asserted within a distinctively metaphysical framework. As such, assessing Carnap's metaphysical anti-realism requires attention not so much to semantic questions—pertaining, e.g., to whether there is a distinctively metaphysical quantifier, à la Sider (2009), Hirsch (2011), and others—but to whether metaphysical investigations have standards of confirmation sufficient to generally determine the outcome of metaphysical debate. We should start, then, by attending to Carnap's reasons for thinking not:

Suppose that one philosopher says: 'I believe that there are numbers as real entities'. [...] His nominalistic opponent replies: 'You are wrong: there are no numbers'. [...] I cannot think of any possible evidence that would be regarded as relevant by both philosophers, and therefore, if actually found, would decide the controversy or at least make one of the opposite theses more probable than the other. (1950, 56, 254)²²

²² On this traditional reading of Carnap he argues for metaphysical anti-realism primarily on epistemic grounds (specifically, verificationist or at least broadly empiricist grounds). Several contributors to this volume offer competing interpretations. While we discuss some of these in Appendix B, one should note that our interpretation remains standard, and thus, is dialectically apropos.

So Carnap reported. But was he correct? Suppose that one adopts abductive two-dimensionalism. One thereby accepts that abduction sometimes can confirm theories, and associated claims. So, if abduction can support some metaphysical claims over others, then plausibly abduction can confirm metaphysical claims. Going by what metaphysicians report, abduction *can* support some metaphysical claims over others. Hence Sider says, in characterizing 'main-stream metaphysics':

Competing positions are treated as tentative hypotheses about the world, and are assessed by a loose battery of criteria for theory choice. Match with ordinary usage and belief sometimes plays a role in this assessment, but typically not a dominant one. Theoretical insight, considerations of simplicity, integration with other domains (for instance science, logic, and philosophy of language), and so on, play important roles. (2009, 385)

Though not couched as such, this is a description of metaphysical deliberation as proceeding by way of abduction, i.e., by way of theory choice guided by attention to how well a given theory conforms to a range of broadly theoretical desiderata, which include "match with ordinary usage", "considerations of simplicity", "integration with other domains", and other theoretical virtues. If this description of actual practice is broadly accurate, and we think it is (at least roughly), many metaphysicians rely on abduction and associated theoretical virtues, as supporting metaphysical claims. In that case, anyone who adopts abductive two-dimensionalism should accept that abduction can confirm metaphysical claims.

Now, one might be concerned about whether abduction is a properly empiricist mode of inference. Certainly there is a tradition, which at least superficially includes Hume, empiricism's greatest defender, and which includes other self-identified empiricists unto the present day (notably, van Frassen, as per his 1980), according to which abduction is not a mode of inference in good standing. But most empiricists these days are typically happy to accept abduction—in part, because it seems impossible to do science without it. In any case, a neo-Carnapian who aims to reconcile Carnap's intensional semantics with Kripke's insights cannot take these concerns on board: as we've seen, only abduction has the resources to overcome widespread indeterminacy, and so provide a basis for a priori knowledge of a wide range of (conditional) modal truths.

Given that metaphysical claims can be confirmed, albeit defeasibly, by abduction, what prevents there from being a distinctively metaphysical linguistic framework? Nothing, by Carnap's own lights. Carnap, or at least those neo-Carnapians aiming to accommodate a posteriori necessities by appeal to the E2D strategy, should allow that there is or in any case could be such a framework, from within which metaphysical questions can (could) be meaningfully and (like scientific questions, which are neither trivially true nor trivially false) substantively asked. But then, of course, Carnap's case for metaphysical anti-realism, hinging as it does on the in-principle absence of a metaphysical framework and associated standards of confirmation, falls apart. The upshot is that the most natural post-Kripke version of Carnap's intensional semantics undermines his metaphysical anti-realism.

One can react to this tension in pre- and post-Kripke Carnapian doctrine in a few different ways. One can backtrack, returning to a purely pragmatic interpretation of Carnap's methodology for the identification of intensions, perhaps on grounds that abduction cannot be an epistemic affair. As we discuss in Appendix A below, however, Carnap's motivations for a pragmatic interpretation of explication are uncompelling, and Kripke's results provide independent motivation for an epistemic interpretation of Carnap's methodology. Alternatively, one can insist that abduction has epistemic force when claims about intensions are at issue, but does not have such force when metaphysical claims are at issue. Since these different kinds of claim appear to be equally amenable to abduction, however, such a move would be ad hoc. Finally, one can embrace our result. This, we think, is the best option. After all, Carnap's metaphysical anti-realism was ultimately motivated by the worry that there is no substantive means of confirmation of metaphysical claims. Such a worry arises only if one ignores the possibility that abduction can be a warranted, if fallible, means of arriving at metaphysical results-just as it is a warranted, if fallible, means of arriving at results about intensions, scientific goings-on, other minds, and many other claims whose truth is not revealed by perception, conceivability, or any other form of comparatively direct access. Accordingly, we maintain that a post-Kripke neo-Carnapian should accommodate a posteriori necessities by endorsing abductive two-dimensionalism, and metaphysical anti-realism be damned.

Appendix A: Epistemic vs. Pragmatic Interpretations of the Methodology of Intensions

Carnap maintains that we associate intensions with expressions on pragmatic rather than epistemic grounds. Why so? Carnap explicitly argues for his pragmatic understanding of explication only once:

In a problem of explication the datum, viz., the explicandum, is not given in exact terms; if it were, no explication would be necessary. Since the datum is inexact, the problem itself is not stated in exact terms; and yet we are asked to give an exact solution. This is one of the puzzling peculiarities of explication. It follows that, if a solution for a problem of explication is proposed, we cannot decide in an exact way whether it is right or wrong. Strictly speaking, the question whether the solution is right or wrong makes no good sense because there is no clear-cut answer. The question should rather be whether the proposed solution is satisfactory, whether it is more satisfactory than another one, and the like. (1950, 3–4)

This argument hinges on what it is to "decide in an exact way" whether a given explicatum T is "right or wrong" for a given explicandum D. If deciding in an exact way only requires having clear procedures for ranking competing explicata, then Carnap's method for associating concepts with intensions suggests that we *can* decide in an exact way whether T is right or wrong for D. If deciding in an exact way requires deciding with conclusive justification, then the fact that we cannot decide in an exact way whether T is right or wrong for D does not preclude (at least by Carnap's lights) our having justification for believing that T is right

or wrong for *D*; as Carnap says, "If by verification is meant a definitive and final establishment of truth, then no (synthetic) sentence is ever verifiable. We can only confirm a sentence more and more $[\ldots]$ " (1936, 420). So, Carnap's only explicit argument for his pragmatic interpretation fails.

Is there an implicit motivation for a pragmatic interpretation anywhere in Carnap's semantics? Kripke's insights aside, yes. Carnap claims that explication consists in *replacing*, as opposed to *refining*, concepts—where replacement occurs when one exchanges one concept for another, and refinement occurs when one adjusts a concept without altering its identity, perhaps through mere precisification, perhaps by changing inessential elements.²³ Carnap then infers that there can be no fact of the matter about whether a candidate explicatum is correct for its explicandum, and thus, the choice is always a pragmatic one. Put another way, the argument is as follows: (1) explication is always replacement of one concept by a new concept; therefore, (2) there is never a fact of the matter about whether an explicatum is correct for its explicandum; therefore, (3) explication is not an epistemic enterprise.

Carnap's rationale for (1) is revealed in an example. He claims that the "prescientific term 'fish' was meant in something like the sense of 'animal living in water'; therefore its application to whales, etc., was entirely correct" (1950, 6). He also claims that using the prescientific concept (call it 'Fish') can be appropriate for certain purposes even for one who has acquired the zoological concept (call it 'Fish*'). Together, these claims suggest that any competent user of Fish who knows the relevant facts about sea animals (e.g., the evolutionary and deep biological facts) should still apply Fish to whales. If Fish* merely refined Fish, then competent users who know the relevant facts should not apply Fish to whales. So, thinks Carnap, Fish* replaces Fish—though 'fish' still expresses both concepts.²⁴ This discussion presupposes that *animal living in water* serves as a reference fixing description for our pre-scientific, natural kind concept of fish, as per traditional descriptivist theories of meaning. In turn, this presupposition implies that our pre-scientific concept includes whales in the extension of Fish, even for one who knows relevant biological/ evolutionary facts.

Kripke's rejection of this presupposition is, of course, at the heart of many of his insights about meaning and modality. Kripke compellingly argues both that descriptions that are a priori associable (in some loose sense) with natural kind concepts are typically not reference-fixing (at least not in the crude manner that traditional descriptivist theories presumed), and that natural kind concepts are typically not associated with an a priori reference-fixing description. Rather, he argues, natural kind concepts have a consistent extension all along, such that the ancient Greeks and we both have a concept of fish that excludes whales from its extension, even though only we are sufficiently informed about relevant facts to recognize that

²³ There are, of course, puzzles about how objects can persist through change, and those puzzles transfer readily to concepts. Rather than engage these puzzles here, we consider Carnap's reasons for thinking that concepts cannot persist through changes that result from explication, showing that they are not compelling, even if they seemed compelling prior to Kripke's work.

²⁴ This approach leaves us with Fish and Fish* as distinct concepts in our conceptual repertoire. Carnap thinks that the use of Fish will diminish since Fish* is more fruitful, which, after all, is why explication of Fish resulted in Fish*. What holds for this explicandum (Fish) and its explicatum (Fish*) holds more generally for any explicandum–explicatum pair, since fruitfulness always plays a role in identifying the explicatum, and fruitfulness always can lead to choosing an explicatum that is so dissimilar to its explicandum that there is relatively little classificational overlap—at least, so Carnap supposes.
exclusion.²⁵ So, the naive descriptivist theory required to motivate Carnap's assumption that explication involves replacement of one concept with another is simply outdated. As such, (1) is unmotivated; hence so is Carnap's rationale for thinking that explication is a pragmatic rather than an epistemic enterprise.

Had Carnap realized that his rationale for a pragmatic understanding of explication would be undermined, he might have been more open to an epistemic interpretation of abductive deliberation than one might expect. Strawson (1963) objects that explication, as Carnap conceives of it, is useless for philosophy:

[H]owever much or little [explication] is the right means of getting an idea into shape for us in the formal or empirical sciences, it seems prima facie evident that to offer formal explanations of key terms of scientific theories to one who seeks philosophical illumination of essential concepts of non-scientific discourse, is to do something utterly irrelevant—is a sheer misunderstanding, like offering a text-book on physiology to someone who says (with a sigh) that he wished he understood the workings of the human heart [...] laying down the rules of use of exact fruitful concepts in science [...] is not to solve the typical philosophical problems, but to change the subject. (504–6)

Strawson's objection presupposes that explication consists in replacing ordinary concepts. Carnap (1963) counters that he has "the impression that Strawson's view is based on the conception of a sharp separation, perhaps even a gap, between everyday concepts and scientific concepts. I see here no sharp boundary line but a continuous transition" (1963, 934). It is tempting to think of the "continuous transition" at issue as occurring *within* concepts. Carnap (1963) reinforces this temptation by claiming that the scientific concept of warmth is a "disambiguation" of the ordinary concept, which suggests that it is not, after all, a wholly new concept, but is rather a refinement of the prescientific explicandum—contrary to his earlier (1950, 8–15) discussion of the transition from the prescientific concept to the scientific concept of warmth, in which he suggested that explication involved replacement, again for broadly descriptivist reasons. Carnap's response to Strawson suggests that he might have been uncomfortable with thinking of explication in terms of replacement, even though his naïve descriptivism, as it manifests in (1)–(3), forced this result upon him. Perhaps, then, in light of Kripke's insights, Carnap would be open to thinking of explication as refinement.

Finally, one should note that thinking of explication as refinement, as Kripke's insights suggest we should, not only undercuts Carnap's best reason for interpreting semantics as a pragmatic enterprise, but also potentially directly motivates an epistemic interpretation. The idea, very roughly, is this: if a given explication involves refinement, then there *is* a fact of the matter about whether the explicatum at issue is correct for its explicandum, and thus, explication can be an epistemic enterprise. Unlike a pragmatic account of the assignment of intensions to expressions, then, an epistemic account is well-motivated. We find, then, that the most plausible post-Kripke updating of Carnap's intensional semantics combines a post-Kripke epistemic reading of Carnap's explication-based method for identifying intensions with the E2D strategy, resulting in abductive two-dimensionalism.

²⁵ *How* our concepts manage this is quite controversial. *That* our concepts manage this is not so controversial, thanks to Kripke. Accordingly, our reply to Carnap's argument for a pragmatic interpretation of semantics is dialectically apropos.

Appendix B: Metaphysical Anti-realism as a Consequence of Verificationism

We assume a commonplace reading of Carnap's metaphysical anti-realism, according to which he advances this view on verificationist (or at least, broadly empiricist) grounds. There are competing interpretations of these motivations. Some of these are innocuous for our dialectical purposes—for example, a deflationist reading according to which metaphysical questions should be reinterpreted as internal questions having trivial answers (see also Levine, this volume, for a case against a deflationist reading). Other competing interpretations are less innocuous—in particular, interpretations that treat Carnap as neither an anti-realist nor a deflationist about metaphysics, and interpretations that divorce his attitude toward metaphysics from his verificationism. We consider certain such interpretations as forwarded by Thomasson, Kraut, and Sidelle (this volume); our points generalize to others who worry about the commonplace reading.

Thomasson (this volume) agrees with us that Carnap thinks of external metaphysical questions as misguided, but insists that understanding metaphysical questions as internal questions does not impugn ontological realism—after all, she thinks, to say that numbers exist according to a framework is to say that there really are numbers, in the only senses of "really" and "there are" that there are. She also claims that Carnap's rejection of external questions (qua epistemic questions) has little to do with his verificationism (empiricism) and much to do with his thinking that we cannot even use our terms (although we can mention them) when speaking externally.

Thomasson recognizes that this interpretation is strained. She claims merely that "*there is a way to interpret Carnap's view* that does not rely on verificationism nor lead to anti-realism", not that Carnap advances such a view (our italics, 122). Accordingly, she sees her work as more "appropriation" than "historical interpretation" (124).

In any case, we can consider, as Thomasson does, whether Carnap should have grounded his attitude toward metaphysics in the belief that words cannot be used but only mentioned outside of a framework. Four considerations push towards a negative answer. First, it is not only metaphysical questions that cannot be asked by merely mentioning terms, it is any question at all: if an uttered word is merely mentioned, then nothing is said with it, regardless of whether the word would have metaphysical import if it were used. The appeal to the use-mention distinction, then, cannot explain why Carnap thinks of metaphysical questions as especially problematic. Second and relatedly, appeal to the use-mention distinction cannot explain why we cannot, according to Carnap, adopt a distinctively metaphysical framework (see Wilson 2010). Third, Carnap says that we can legitimately explore metaphysical questions (qua external questions) by treating them as pragmatic questions about which framework is best for one or another purpose, but metaphysical questions cannot be answered on pragmatic grounds if crucial terms are only mentioned. We understand how we might have pragmatic reasons to prefer Platonism to nominalism about this or that if Platonism and nominalism are at issue, but how could we have such reasons if 'Platonism' and 'nominalism', taken as uninterpreted words, are at issue? Fourth, insofar as we can have pragmatic reasons to prefer one framework to another and Carnap clearly thinks we can-we can have epistemic reasons to prefer one framework to another if, as we maintain, the method that Carnap advances for making pragmatic decisions is epistemically significant.

Kraut (this volume) agrees with us that metaphysical questions are external questions, but insists that we should think of them as expressing our commitments to the pragmatic value of our preferred frameworks, rather than as nonsensical ramblings. He admits, however, that his expressivist reading is nonstandard, and that the reading that we presume is "widely shared"; he offers several citations supporting or presuming our reading; and as such attributes the expressivist view at issue to 'Carnap*', rather than to Carnap himself (31).

An expressivist reading of Carnap's metaphysical anti-realism, moreover, does not threaten our dialectic. Kraut maintains that for Carnap*, ontological claims are bound to explanatory considerations. Specifically, he thinks that Carnap* treats existence claims as "expressions of...commitments to the explanatory ineliminability of a given discursive framework" (42). Consequently, those who disagree about an ontological claim should "make explicit (1) the data they seek to deal with; (2) their sense of what it would be to adequately deal with it; (3) their criteria for treating one way of dealing with it as superior to another" (40). So, for example, "arguments about the existence of a Judeo-Christian deity [understood as external, not internal] turn on disputes about best explanation of natural phenomena" (42). As such, on Kraut's reading, like ours, the procedures for choosing among competing explanations rely on explication; and as such we can go on to ask: why do Carnap and Carnap* think that the prescribed procedure tracks pragmatic but not epistemic value? For Carnap, we think, the answer is grounded in verificationist (empiricist) scruples. But Kraut treats Moore's open question argument as decisive for Carnap*, saying that since it *could be* pragmatically useful to adopt a way of talking that doesn't track reality (if, say, number talk was useful even in the absence of numbers), the principles that establish the pragmatic value of a framework don't establish the reality of the entities implied by that framework. But this is a decisive consideration only if reasons can't be defeasible. We think, as most philosophers these days do, that reasons can be defeasible.

Finally, Sidelle (this volume) explores the connection between Carnap's attitudes toward metaphysics and his verificationism more carefully than any other contributor. He concludes that Carnap's clearest arguments against metaphysical theorizing rest on his verificationism (see especially 78–79). He also suggests, however, that Carnap offers some considerations which push towards anti-realism but do not presuppose verificationism. If Carnap's metaphysical anti-realism can be grounded in considerations independent of any broadly empiricist epistemological scruples, our arguments would need to be adjusted. We cannot explore this issue adequately here, but here register that we doubt that these other considerations are independent of empiricist epistemological scruples.

We conclude that competing interpretations of the source and/or purport of Carnap's metaphysical anti-realism either pose no pressing problems for our view, or are as yet unmotivated.

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5

Three Degrees of Carnapian Tolerance

Eli Hirsch

We practice Carnapian tolerance about an issue when we regard it as "merely a matter of choosing a language."¹ I want to distinguish between three kinds of cases in which this attitude might show up, and associate these cases with a distinction between three increasingly problematical degrees of tolerance. I favor the first degree; I am less clear about the second degree; and I am thoroughly opposed to the third degree. I can say immediately that the third degree is verificationism; the nature of the other two degrees will have to be explained.

I must emphasize that this chapter is not an exercise in Carnap exegesis. My general understanding of Carnap's metaontological views is very close to Matti Eklund's.² But my main interest in this chapter is in clarifying the sort of neo-Carnapian (deflationist, superficialist) attitude towards ontology that has recently been presented by a number of author's, and in my own work.³ It will be obvious that my position is in a number of ways different from and critical of Carnap's, but I will not be concerned to spell that out.

In the course of addressing the three degrees of tolerance, an ancillary goal in what follows is to reply to a number of significant objections raised by John Hawthorne to the neo-Carnapian attitude.⁴

5.1

When is a philosophical question or controversy "merely a matter of choosing a language"? Let me try to motivate an answer to this question by looking at an example that I think almost everyone will view as in some sense merely a matter of choosing a language.

¹ Carnap (1956). ² Eklund (2009).

³ Chalmers, Manley, Wasserman (2009); Hirsch (2011). ⁴ Hawthorne (2009).

Imagine that Ik (for "inclusive") and Ek (for "exclusive") are about to enter a meeting when Ik says, "I'll bet that either Mary is present or John is present". Ek accepts the bet and they enter the room, finding that both Mary and John are present. Both of them claim to have won the bet. It soon emerges that, for any two sentences, Ik thinks that the disjunction of the sentences is true as long as they are not both false, whereas Ek requires for the truth of the disjunction that they are also not both true. I think that most people will agree that this controversy about the truth of the disjunction is in some important sense merely verbal, merely a matter of choosing between a language in which disjunction is inclusive or a language in which it is exclusive. (In a verbal dispute one side may be making a *verbal mistake* in misusing conventional language; perhaps that side can be said to lose the bet.) What makes us think that it is merely verbal? Why not say instead that we have here a substantive dispute in logical theory or some other kind of theory?

In answering this question it seems relevant that the controversy between Ik and Ek satisfies the following three-part *Equivalence Condition*:

EQ1. For any controversial sentence C there are two noncontroversial sentences N1 and N2 such that one side claims that C is equivalent to N1 and the other side claims that C is equivalent to N2.

EQ2. For any controversial inference IC (i.e., an inference that is accepted by one side but not the other) there are two noncontroversial inferences IC1 and IC2 such that one side claims that IC is equivalent to IC1 and the other side claims that IC is equivalent to IC2 (where two inferences are equivalent when the premises and conclusion of one are equivalent, respectively, to the premises and conclusion of the other).

EQ3. Whichever side one adopts, one ought to agree that there is a possible language in which the noncontroversial sentences remain as is and the other side's equivalences hold.

It seems clear that the Ik–Ek controversy satisfies EQ1. For any disjunctive sentence, Ik thinks it is equivalent to a certain noncontroversial sentence constructed out of negation and conjunction, while Ek thinks it is equivalent to a different noncontroversial sentence constructed out of negation and conjunction. In this example there is no significant difference between the satisfaction of EQ1 or EQ2; we will see other example shortly. As regards EQ3 there is a complication. Suppose Ek claims that the sentence "Neither Mary nor John is present" is equivalent both to "Mary is not present and John is not present" and to "It's not the case that either Mary is present or John is present." Those equivalences contradict the initial equivalence affirmed by Ek. In this case EQ3 is not satisfied. The satisfaction of EQ3 requires that each person's position allows for an interpretation in which that position is correct. Insofar as Ek's overall position is incoherent he is simply wrong, and there is no choice of language that can make him right, given everything that he is now saying. In this example it is obvious what Ek has to do to make his position coherent, and we may therefore feel tempted to say that, even before he makes the necessary adjustments, the issue is purely verbal, in that he

can easily choose a language in which the adjustments are made. We will see other examples where the satisfaction of EQ3 is a more serious matter.

What kind of "equivalence" should we be talking about in EQ1–EQ3? I suggest that we talk about "truth-conditional equivalence", where two sentences are truth-conditionally equivalent if, and only if, in any (actual or possible) context of utterance, they express the same unstructured (coarse-grained) proposition, i.e., they hold true in the same possible worlds.⁵ It does not seem that any stronger equivalence applies in the Ik–Ek example. It does not seem that either of them should claim that a disjunctive sentence expresses the same structured (fine-grained) proposition as is expressed in terms of negation and conjunction. The equivalences do not preserve "logical form", but that doesn't seem to matter.

Satisfaction of the Equivalence Condition is, I think, sufficient (but not necessary) to get us to say that a controversy has the status of being "merely a matter of choosing a language." But what exactly does that status amount to? It evidently has something to do with *resolving* the controversy. Let me suggest two possible ways of explaining this. The first might be called "resolution by charity"; and the second might be called "resolution by stipulation."

Resolution by charity amounts to this: Whichever side one adopts one ought to charitably interpret the other side as asserting the truth in its own language (or, at worst, as making a false assertion in Tyler Burge's sense, to be explained shortly). I've discussed resolution by charity in many previous works, relying basically on EQ1 and EQ3.⁶ Here I take explicit notice of EQ2. If the three equivalence conditions hold, one ought to charitably interpret the other side's affirmed equivalences as holding in the other side's language.⁷ I have maintained that many disputes in the ontology of physical objects satisfy the Equivalence Condition and are therefore merely a matter of choosing a language. Let me qualify this slightly. What I have actually argued is that in these ontological examples the equivalences hold *at least roughly*, perhaps modulo vagueness, and that this suffices to sustain a resolution by charity. Although I will not repeat these arguments here, let me briefly sketch one example.

Organicists and commonsensical ontologists will differ over the controversial sentence "There exists tables." This sentence will be viewed by the organicists as equivalent to the noncontroversial falsehood "Some tables are living beings", and by the common sense ontologists as equivalent to the noncontroversial truth "Some matter is tablewise interrelated." Pursuing this further it seems fairly clear that EQ1 and EQ2 are satisfied.

⁵ Although this nicety is probably not relevant in what follows, it should be understood that empirical claims of "a posteriori necessity" do not correspond to truth-conditional equivalence. If this planet that I'm on is necessarily the planet Earth, it does not follow that "There exists this planet that I'm on" is truth-conditionally equivalent to "There exists the planet Earth", because in the possible context of Mars, "this planet that I'm on" would not refer to the planet Earth.

⁶ Hirsch (2011).

⁷ It may be objected that, for one to be able to charitably interpret the other side's language, it does not suffice that the Equivalence Condition holds for each controversial sentence, taken one at a time; one must be able to formulate a general semantics for the charitable interpretation. I'll put that question aside here. For discussion, see Hirsch (2011), pp. 158–9, 234–43.

There is, however, an issue to be raised about EQ3. Might it turn out that one side's overall view is incoherent? In the Ik–Ek debate this possibility did not seem critical, but perhaps in ontology, where there may be all sorts of hidden contradictions, it is more important. Suppose the commonsensical ontologists had never given any thought to the ship-of-Theseus puzzle, and when confronted with that puzzle they feel their position to be untenable and retract it, perhaps converting to organicism. In that case a charitable interpretation might dictate that in their own language they were at first mistaken in affirming the commonsensical position and have now corrected themselves.

Apropos of this matter, David Lewis said that, though ontologists do sometimes retract their position, a point is reached when "all is said and done", "when all the tricky arguments and distinctions and counterexamples have been discovered" and each side has achieved a state of "equilibrium."⁸ It is at that point that in the dispute between the organicist and commonsensical ontologist EQ3 is clearly satisfied. At that point I hold (but Lewis does not) that the dispute is empty of substantive content, that each side has in effect chosen a different language in which it speaks the truth.

But do we have to wait till that point has been reached in order to apply resolution by charity? If so, one may worry whether Lewis may have been a bit sanguine in supposing that we can ever feel confident that we have reached this point. Suppose another ship-of-Theseus problem is hiding somewhere, waiting to reveal that one side's linguistic dispositions are incoherent. If it remains open that some such problem will arise for one side or the other, it may seem that resolution by charity will have to be postponed indefinitely.

I think we do not in fact have to wait till we are confident that all is said and done. It is sufficient that all is *almost* said and done. That condition is reached when a sufficient number of tricky arguments and distinctions and counterexamples have been discovered, so that each side has reached a state of equilibrium in the sense of being committed to holding on to the core sentences definitive of its position even in the face of some additional problem. As a commonsensical ontologist, I have figured out how various problem cases (e.g., the ship of Theseus) can be dealt with, but it would not surprise me if some clever organicist came up with a new problem case that I don't immediately see how to deal with. It seems clear to me, however, that my perplexity about any such case will not get me to retract my core commonsensical assertions. This is because it seems clear to me that some adjustments will allow me to accommodate any new problem case while retaining those core assertions. It follows, therefore, that, even if some such cases arise, my overall linguistic behavior will remain such that, on the most plausibly charitable interpretation, my core assertions remain true. Corresponding remarks may hold for the organicists' commitment to their core assertions. I think, in fact, that in many of the familiar disputes of physical-object

8 Lewis (1983), p. x.

ontology, at least as these are conducted by the doyens in the field, enough is said and done that resolution by charity is appropriate.

A potential obstruction to this form of resolution comes out of Tyler Burge's view. Burge holds that the propositions and beliefs expressed by one's assertions are determined, not solely by one's own linguistic behavior, but by the behavior of the linguistic community of which one is a member.⁹ It is the community's linguistic behavior that determines the meanings that operate within the public language, and one's assertions (if one is in the relevant sense a member of that community) express what they are supposed to express in the public language, regardless of one's own linguistic behavior. If the commonsensical ontologists' linguistic behavior approximates in relevant ways to that of typical speakers in the community, then, on Burge's view, it may follow that, charity notwithstanding, the organicists express false propositions and beliefs.

Nevertheless (as I think Burge would readily agree), their mistakes are merely verbal in the sense that, had they belonged to a linguistic community whose linguistic behavior was relevantly like theirs, their assertions would have expressed truths. Their beliefs are mistaken only because of their idiosyncratic misuse of language. This is what I meant earlier when I said that, in resolution by charity, whichever side one adopts one ought to charitably interpret the other side as speaking the truth in its own language or, at worst, as making false assertions in Tyler Burge's sense. The dispute is resolved insofar as it is acknowledged by each side that the other side asserts sentences that are true in the hypothetical community whose linguistic behavior was relevantly like that of the other side.

One may be tempted to bypass the Burge issue in a more dramatic way. Since the ontologists are presumably not primarily concerned with whether they are correctly using the language of their wider community, each side can simply *stipulate* that it intends to speak a language in which its favored equivalences hold true. Insofar as the noncontroversial sentences are kept fixed, this stipulation about the equivalences is in effect the stipulation of truth conditions (relative to any context of utterance) for the controversial sentences. This resolution by stipulation can work only if each side acknowledges that it loses nothing by stipulating the truth of the equivalences it believes in, and that the other side is equally entitled to make such a stipulation. (Unlike the appeal to charity, stipulation could only work to resolve or end the dispute going forward; it can't affect the previous stage of the dispute.) I think this scenario is probably closer to what Carnap had in mind, since he seemed to care little about issues of linguistic interpretation.

But is it really true that nothing is lost by such a stipulation? Certainly one has an intuitively uneasy feeling about this. Consider, however, the following thought experiment. Let's compare "genuine organicists" with "pseudo organicists". The genuine organicists arrive at their position in the normal manner: years of philosophical arguing and kvetching. The pseudo organicists arrive at their position. What

is the difference between these two groups? They assert the same (phonetically individuated) controversial sentences, and agree on what the truth conditions (in any context of utterance) are of those sentences. So in an important sense they sound exactly the same. And even the thoughts-that is, the sentences-going through their minds are generally the same. The example reminds me a bit of Wittgenstein's question about whether it need be wrong to apply our ordinary notion of calculating to "calculating prodigies."10 The pseudo organicists are like prodigies compared to the genuine organicists: the former get the answer without the need for all the philosophical arguing and kvetching. I don't say that they "mean the same" by these sentences in every sense of "mean the same"-certainly the difference in the causal development of their linguistic behavior can seem relevant. However, once enough time has passed (so that the stipulation has been "internalized") it is not clear that any significant behavioral or phenomenological difference remains. Suppose that you're an organicist raising a child as an organicist. You want to spare the child all the years of arguing and kvetching. You simply teach her your truth. "There are no tables, there are just table-wise interrelated bits of matter", and so on. When the child grows up, is she a genuine organicist or just a pseudo organicist? I don't think I'm able to attach any definite significance to that question. It seems that the destination is essentially the same, there are just two ways to get there, and one is much easier.

I expect that many will agree that stipulation is fine in the Ik–Ek case. If a Burgean insists that Ek's beliefs are false because disjunction in the public language is inclusive, we can well imagine Ek saying, "Stop bothering me about the public language; I don't care about that. Look, if you insist, I'll just *stipulate* that in *my* language disjunction is exclusive." Of course, having made that speech, he realizes that his dispute with Ik has become substantively empty; the dispute has in this way been resolved. I think it might work the same way in the ontological disputes that satisfy the Equivalence Condition.

In what follows I'll generally stick to resolution by charity, but I think that much of what I say might apply as well to resolution by stipulation.

There are clearly examples of disputes that don't satisfy the Equivalence Condition but that qualify as "merely a matter of choosing a language". If a controversy over certain sentences results from the fact that one side uses "red" in just those contexts where the other side uses "green", and vice versa, each side ought surely to interpret the other side as speaking the truth in its own language (again, modulo the Burge point), even if neither side can offer equivalences of the controversial sentences in noncontroversial terms. We might consider this sort of example as satisfying a somewhat more complicated version of the Equivalence Condition, as follows. Change (EQ1) to read, "For any side x in the dispute, and any controversial sentence C, there is a sentence S such that, if x were to suppose that S as used by x is equivalent to C as used by the other side, then x would no longer disagree with the other side about C." In the Equivalence Condition the formulation is simplified by assuming that the relevant sentence S is itself

¹⁰ Wittgenstein (1953) I, 236.

noncontroversial, so that the equivalence that would end the controversy can be asserted by the other side. To complete the more complicated formulation, changes can be made in (EQ2) that parallel those made in (EQ1). And (EQ3) should be changed to read, "Whichever side one adopts, one ought to agree that there is a possible language in which the noncontroversial sentences remain as is and the controversy-end-ing equivalences hold." I'll assume for simplicity (though this is not essential) that in the relevant philosophical examples the simple formulation of the Equivalence Condition is satisfied. Tolerance to the first degree, as I'll call it, occurs in these examples. In my past work that is the only form of tolerance I have endorsed.

A crucial mistake to avoid is thinking that satisfaction of the Equivalence Condition is more common than it actually is. It might be supposed that any dispute in mathematics satisfies at least EQ1. Since a sentence of pure mathematics (as uttered in any context) is either necessarily true or necessarily false, in a dispute over that sentence one side will consider it equivalent to a noncontroversial trivial necessity, and the other side to a noncontroversial trivial contradiction. It must be understood, however, that in typical disputes about pure mathematics there are inevitable corollaries to the dispute that are outside pure mathematics and that do not satisfy EQ1. Suppose that there is a dispute over the Goldbach sentence "Any even number greater than 2 is the sum of two primes." The disputants must also disagree over the following sentence:

(1) The number of stars is an even number greater than 2 that is not the sum of two primes.

The believer in the Goldbach sentence will regard (1) as a necessary falsehood, while the disbeliever will regard it as a contingency true in some worlds and false in others. The disbeliever will evidently not regard (1) as equivalent to any noncontroversial contingency.

Moreover, the disputants will disagree about inferences that neither regards as equivalent to a noncontroversial inference, for example:

(In1) The number of stars is an even number greater than 2. Therefore the number of stars is the sum of two primes.

The believer will accept this inference and the disbeliever will reject it, and neither will regard it as equivalent to a noncontroversial inference. We see that, in this dispute, whereas EQ1 seems to be satisfied on the side of the believer (e.g., the believer views (1) as equivalent to a trivial contradiction), EQ2 is not satisfied by the believer, since the believer does not regard (In1) as equivalent to a noncontroversial inference. (Can there be an example that satisfies EQ1 from both sides, but does not satisfy EQ2?) Note that I am talking about their controversy with respect to accepting or rejecting the inference. I am not talking about their evaluation of the sentence "Inference (In1) is correct", a sentence that perhaps one side will regard as necessarily true and the other as necessarily false.

The same points seem to apply to a controversy over the continuum hypothesis, as is illustrated by the following controversial sentence and inference.

(2) The number of angels is less than the number of reals and greater than the number of integers.

(In2) The number of angels is less than the number of reals. Therefore the number of angels is not greater than the number of integers.

We can see from (2) and (In2) that the controversy over the continuum hypothesis does not seem to satisfy either EQ1 or EQ2. I would tentatively conclude, therefore, that neither the dispute about the Goldbach sentence nor about the continuum hypothesis is merely a matter of choosing a language by virtue of satisfying the Equivalence Condition. If I am wrong about this, it remains important to see that neither dispute should be viewed as merely a matter of choosing a language by virtue of verificationist considerations. If it turns out that tolerance to the first degree does apply to one or both of these examples, it remains that tolerance to the third degree must not be invoked.

(A number of philosophers have objected in conversation that there is a critical difference between the case of Goldbach's conjecture and the case of the continuum hypothesis: Since the latter is known to be undecidable on the basis of the standard axioms, it ought to be possible for each side to provide a charitable interpretation of the other side's language, so that the Equivalence Condition is satisfied. Perhaps this is right, but I don't see it. The axioms are uncontroversial sentences, and the fact that the truth-value of the continuum hypothesis is not formally decidable from these noncontroversial sentences doesn't, on the face of it, show anything about whether either side can come up with charitable truth conditions for the other side's claims about such sentences and inferences as (2) and (In2).¹¹ (I will, however, add something later about the possible application to the continuum hypothesis of "tolerance to the second degree.")

Let me briefly contrast the above examples with another kind of example that appears to me to satisfy the Equivalence Condition. In the dispute between haecceitists and anti-haecceitists a leading controversial sentence is "There are qualitatively indistinguishable worlds." Haecceitists regard this sentence (in any context of utterance) as a necessary truth, and their opponents regard it as a necessary falsehood. So far the Equivalence Condition appears to be satisfied. In the examples of the Goldbach sentence and the Continuum Hypothesis there turned out to be "applied" correlative

¹¹ I hasten to add that there are issues here in mathematical logic that are beyond me. It has been suggested to me that the "forcing" method will allow believers in CH to formulate a sentence that they can plausibly regard as expressing the same contingent proposition that disbelievers in CH express with (2). The question, however, is whether this method, notwithstanding its virtues in establishing a point of formal mathematical logic, can have any bearing on the philosophical issue being discussed in this paper. If "forcing" involves, as seems often to be said, "expanding the domain of sets", it would beg the central question to suppose that believers in CH could accomplish this (in some substantive, not purely formal, sense) merely by altering their language. As regards satisfaction of the Equivalence Condition (or its more complicated version), the relevant question is whether believers can, *without altering their ontology of sets*, formulate a sentence that they can plausibly regard as expressing the same contingent proposition that disbelievers express with (2). Cf. Godel (1964).

sentences and inferences, for which EQ1 and EQ2 apparently failed. As far as I can make out, there are no such correlative sentences or inferences for the haecceitist issue. Assuming that "all is (almost) said and done", the satisfaction of EQ3 seems to follow. I'm therefore inclined to view this issue as merely a matter of choosing a language. It must be understood that this is not to deny that we may have strong intuitions about the issue, but these "intuitions" may be indistinguishable from being drawn to a certain modal language, from finding it natural to "go on" in one way rather than another. Nor is it to deny that it may be a worthy philosophical undertaking to develop and clarify how both the haecceitist and anti-haecceitist languages may operate.

5.2

In John Hawthorne's paper "Superficialism in Ontology" he argues that I will have trouble distinguishing myself from a verificationist.¹² He offers four examples of disputes that he thinks any non-verificationist will regard as clearly substantive, but he does not see on what principle I could distinguish those disputes from the ontological ones that I regard as merely verbal.

The trouble with Hawthorne's examples, however, is that none of them seem to satisfy the Equivalence Condition. From my point of view, therefore, they are non-starters. I can't review all four examples; I'll just mention one that I think fairly represents all of them: a dispute in which a controversial sentence is "Vegetables have sensations." As far as I know, there is no remotely realistic philosophical context in which both of the disputants will consistently regard this sentence and related inferences as truth-conditionally equivalent to some noncontroversial sentences and inferences.¹³ Hawthorne remarks that we could "cook up conciliatory translation schemes" that will make each side right by the other side's lights".¹⁴ But harebrained "translations" are beside the point. In the ontological examples I demand nothing more than I suppose everyone including Hawthorne would demand in the Ik–Ek example, namely, that (putting aside the Burge complication) each side simply acquiesce to the other side's explana-

¹³ Suppose that one side claims that the sentence "Vegetables have sensations" is truth-conditionally equivalent to a logical truth, whereas the other side claims that the sentence is truth-conditionally equivalent to a logical contradiction. So the first side claims that, in any possible context of utterance, the sentence expresses a necessary truth, whereas the second side claims that, in any possible context, the sentence expresses a necessary falsehood. This implies that, with respect to any world in which people are in our epistemic situation, the first side claims that when these people assert the sentence they assert a truth, whereas the second side claims they assert a falsehood. In other words, the first side claims that the sentence is epistemically necessary, whereas the second side claims its denial is epistemically necessary (see Kripke 1980). I'm not aware of any instance in which the debate is actually structured in this manner. But if there were such an instance, and each side stuck to its position consistently (so that EQ3 is satisfied), I think it would be quite natural to say (putting aside Burgean issues) that the two sides mean different things by "sensation", and each side speaks the truth in its own language.

¹⁴ Hawthorne (2009), p. 215.

¹² Hawthorne (2009).

tions of what the truth conditions are (in any context) of the controversial sentences in its language.

I think therefore that Hawthorne is quite wrong in worrying that my position will collapse into verificationism. What I would find extremely helpful is to hear how Hawthorne distinguishes the ontological examples that satisfy the Equivalence Condition from the Ik–Ek example. One complaint that I have often heard (though this is perhaps not quite what Hawthorne himself had in mind) is that the equivalences I appeal to in reconciling a dispute are merely intensional (truth conditional) rather than hyperintensional, the latter being a form of equivalence that preserves logical form and comes closer to synonymy. That is true, but what is the complaint? In the Ik–Ek example we have the same kind of intensional equivalence that does the reconciling work. Why should that kind of equivalence be successful in the Ik–Ek example but not in the ontological examples?

Hawthorne takes me to task for my "intension-centric outlook" and my "dislike of hyperintensional operators."15 My outlook is indeed intension-centric if what that means is that (as Matti Eklund put it¹⁶) truth is explanatorily prior to reference. (More on that in a moment.) But I would like to disavow any special hatred of hyperintensionality. Obviously there is a difference between the belief that two and two make four and the belief that there is no highest prime, though the sentences "Two and two make four" and "There is no highest prime" have the same intension. I feel no dislike of that difference. What Hawthorne is really attributing to me, put more soberly, is the view that hyperintensional operators do not "track structural features of reality" but only track "superficial features of the vehicles by which we depict reality."¹⁷ We might put this a bit differently. Bealer held that "thoughts" (and language) have fine-grained structure but "conditions in the world" do not have fine-grained structure.¹⁸ Intensionally equivalent sentences express the same condition but may express different thoughts. That might be my view (though, as I'll explain in a moment, it doesn't have to be). But why does the word "superficial" appear in the last quote from Hawthorne? Do differences in fine-grained thoughts (differences in linguistic phenomenology) have to be superficial? He says that on my view "hyperintensional distinctions do not matter."19 Matter for what? It certainly matters in doing mathematics to have not only the belief that two and two make four, but also the belief that there is no highest prime. That can be the case even if we consign hyperintensional structure to thought and language.

Whether or not hyperintensionality "tracks structural features of reality", there is indeed one respect in which it does not matter to me: concerns about hyperintensions do not affect my interpretation of intensions. If I am Ek, I ought to charitably interpret the coarse-grained propositions being asserted by Ik's sentences of the form "p or q" without concerning myself with any issues of hyperintensionality. Likewise, if I am an

¹⁵ Hawthorne (2009), p. 225. ¹⁶ Eklund (2006a), (2006b), (2009).

¹⁷ Hawthorne (2009), p. 226. ¹⁸ Bealer (1982). ¹⁹ Hawthorne (2009), p. 226.

organicist, I ought to charitably interpret the coarse-grained propositions being asserted with common sense sentences like "There are tables" without any concerns about hyperintensionality. If Hawthorne agrees with this procedure in the former case, as I assume he does, but doesn't agree with it in the latter case, I think he has the burden of explaining how this works. He has to explain what specific sorts of concerns about hyperintensions ought to affect what specific sorts of interpretations of intensions.

Let me turn now to the view that truth is explanatorily prior to reference. I think that follows immediately and inescapably from Frege's basic insight that "only in the context of a sentence does a word have meaning." This is of course a controversial claim that Hawthorne is understandably skeptical about. But let me briefly indicate how the claim ties into the ontological issue. If I am right, there are two possible languages, call them "ontological languages", C-English and O-English. In C-English all of the ontological sentences typically accepted by commonsensical ontologists are true; in O-English all of the ontological sentences typically accepted by organicists are true. Suppose that we are situated in O-English, trying to make sense of C-English. We regard the sentence "That table is wooden", as asserted in some typical context, as true in C-English. But we cannot say, "That assertion in C-English is true because the expression 'that table' refers in C-English to something that is wooden". We cannot say that in O-English because in O-English we must say, "There is no table (or any other relevant object) there for the expression 'that table' to refer to." We are forced to view the truth of the sentence in C-English as not explained by an appeal to (what we call) reference.

I would like to understand what Hawthorne wants to say about this kind of example. His own ontological stance is "plenitudinous", so that he employs an ontological language that, put very roughly, contains a quantifier that ranges over every object countenanced by any possible ontological language.²⁰ (This is very rough because, in saying what I just said, I had to pretend that I am using the plenitudinous quantifier.) But what will Hawthorne say about the O-speaker's predicament in trying to make sense of the truth conditions of C-English sentences? I have sometimes had the impression that Hawthorne holds that both C-English and O-English are *metaphysically impossible* languages, that any possible language must contain an unrestricted quantifier that ranges plenitudinously. I would in fact regard that as an extremely interesting view. Is it Hawthorne's? Such a view would be the most extreme opposition to the "quantifier variantism" that I have tried to defend in my writings, which is the view that different ontological languages, such as C-English and O-English, are perfectly reasonable languages that vary in the meanings of their most unrestricted quantifiers.

But let's go back to the issue of hyperintensionalism. Why does Hawthorne assume that I cannot hold that hyperintensional phenomena are structural features of reality independent of thought and language? Perhaps he reasons as follows: The structure of reality must depend on ontology, on what exists. But, according to quantifier

²⁰ See Hawthorne (2006). See also Eklund (2009); Sider (2011), pp. 181-2.

variantism, what exists varies from one language to another. Consequently, hyperintensional structure must vary from one language to another, and cannot be a feature of reality independent of thought and language.

If that is Hawthorne's reasoning, he is making a mistake. Quantifier variantism most definitely does *not* imply that what exists varies from one language to another. That would be a form of linguistic idealism that I have consistently distanced from quantifier variance. The doctrine of quantifier variance is a meta-level doctrine about how the quantifier expressions in different ontological languages can function differently from one language to another. It is emphatically not an object-level claim about the language-relativity of existence. The sentence "What exists varies from one language to another" is false in every ontological language, including the one I am now employing (whatever that is). The same could in principle be said to hold for hyperintensional structure. The correct meta-level claim is that in different ontological languages there are different truths of the form "Such and such is a hypertensional structure." That point is consistent with holding (with asserting in whatever ontological language one is using) that hyperintensional structure is independent of thought and language.

But two caveats: Hawthorne may have had some other reasoning in mind. And I would agree that language-independent hyperintensional structures may strike many quantifier variantists as a cumbersome and dispensable complication.

Something else that disturbs Hawthorne is my saying that ontologists are engaged in a priori disputes; he thinks that amongst current ontologists the disputes are typically not a priori in any traditional sense. I disagree, but I want to put that aside. Instead of talking about "a priori necessary equivalence", as I often have in the past, I now talk of truth-conditional equivalence.²¹ I don't see any objections in Hawthorne to that formulation; he seems to allow that typically ontological disputes are at bottom about necessities, rather than about empirical contingencies.²² I should, however, state explicitly that if some ontologists see themselves as carrying on a debate that is (not just derivatively, but at bottom) about empirical contingencies, then my conception of Carnapian tolerance as based on the Equivalence Condition can have no application to them.²³

I do accept one of Hawthorne's criticisms: I have tended to ignore the fact that a dispute that is verbal by my standards may sometimes be linked to another dispute that is

²¹ I had already moved to that formulation in Hirsch (2011), pp. 223ff., where I speak of sentences having the same "character." I think that a claim of truth-conditional equivalence must always be backed up by essentially a priori arguments, but I will not press that here.

²² Hawthorne (2009), p. 217.

²³ A puzzling example is Lewis's arguments for the doctrine of temporal parts. In Lewis (1986a), pp. 198–204, he first argues that the problem of "accidental intrinsics" can be solved only by appealing to counterpart theory. He next argues that the "parallel" (as he calls it) problem of "temporary intrinsics" can be solved only by appealing to the doctrine of temporal parts. Since there is, I assume, no doubt that Lewis intended the doctrine of counterparts to be a necessary truth, he seems clearly to imply that the doctrine of temporal parts is also a necessary truth. But then there is his obscure remark in Lewis (1986b), p. x, to the effect that the doctrine of temporal parts depends on the contingency of Humean supervenience. Cf. Haslanger (1994).

not verbal. For example, some philosophers who disagree about temporal parts see that disagreement as affecting what they say about the possibility of there being a homogeneous spinning disc.²⁴ By no means do all philosophers believe in such a linkage, but Hawthorne is right that one shouldn't ignore the possibility that a dispute that would otherwise be verbal may gain some form of substantive significance from the disputants connecting it to something else.

5.3

To recapitulate now: Tolerance to the first degree, which I endorse, pertains to examples that satisfy the Equivalence Condition; tolerance to the third degree is verificationism, and, though Carnap himself may have favored this, I think it should be shunned. Let me turn, finally, to "tolerance to the second degree." The basic principle of this form of tolerance is something like the following: Even where the equivalence condition doesn't hold, you should not let your ontological scruples prevent you from mastering a new ontological language, and with it new ways of dividing logical space into different propositions. In the case of tolerance to the first degree you can step from one ontological language into another on the back of the equivalences, thereby remaining with the same coarse-grained thoughts (i.e., entertaining the same coarse-grained propositions). The second degree of tolerance urges one to go further than that by leaping into new ontological languages that do alter one's coarse-grained thoughts. I'll try to give a couple of illustrations of this idea, but I have to say at the outset that I don't really know how to clarify the boundaries of this form of tolerance.

As an example, let's consider the dispute between a platonist and an extreme nominalist who rejects all abstract items, including sets and properties. The controversial sentences in this dispute will include any relatively complicated "applied" set-theoretical sentence, such as:

 $(3) \quad \mbox{There are two sets X and Y, whose members are sets of angels, satisfying the condition that, for any set X' in X, there is a set Y' in Y such that all angels in X' love all and only angels in Y', and some angel in Y' loves some angel in some set in X other than X' \\ \end{tabular}$

Platonists consider (3) to be a contingency true in some worlds and false in others, whereas nominalists, I will assume, regard (3) as necessarily false. (3) is therefore a controversial sentence, and it does not seem, on the face of it, that platonists will regard (3) as truth-conditionally equivalent to any noncontroversial sentence. Although the Equivalence Condition does not seem to be satisfied in this controversy, so that tolerance of the first degree does not apply, tolerance of the second degree may apply, as I will now try to explain.

A nominalist is not someone who simply has not been given an education in set theory. A grade school student who looks at (3) might not know what to make of talk

²⁴ Hawthorne (2009), p. 223.

about "sets" and "members." That is evidently not the nominalist's situation with respect to (3). Here is one test for this: the nominalist will be able to accurately predict what platonists will say is implied by (3). Platonists will say, for example, that (3) implies that there are at least two angels. And (3) implies that, if there are only two angels, one of them x is such that x loves only x. Further results of this sort can be worked out for worlds with three angels, four angels, and so on. Nominalists are as good as platonists at working out these implications of (3).

Indeed, nominalists will be able to predict that platonists regard (3) as implying the following schematism:

(4) There are angels x-11, x-12, x-13,..., and angels x -21, x-22, x-23,..., and angels x-31, x-32, x33, and angels ..., and angels y -11, y-12, y-13,..., and angels y-21, y-22, y-23,..., and angels y-31, y32, y—33,..., and angels ..., such that either it is the case that {x-11, x-12, x-13,. all love only y -11, y-12, y-13, ..., and either (y-11 loves either x -21, or x-22, or x-23,..., or x-31, or x-32, or x33, or ..., or ...) or (y-12 loves either x -21, or x-22, or x-23,..., or x-31, or x-32, or x33, or ..., or ...) or (y-13 loves either x -21, or x-22, or x-23,..., or x-31, or x-32, or x33, or ..., or ...) or it is the case that {x-21, x-22, x-23, ..., or x-31, or x-32, or x33, or ..., or ...) or

I don't think that (4) qualifies as a sentence, let alone a sentence that platonists can view as equivalent to (3). (This point is especially clear when we consider that the sets that are members of X and Y may be infinitary.) Hence, the Equivalence Condition seems not to be satisfied. Nevertheless, tolerance to the second degree would demand that, on the basis of such formulations as (4), both sides accept that the issue over (3) is merely a matter of choosing a language.

We might imagine both sides objecting to this, but it is easiest to see the objection from the nominalist's standpoint. We should distinguish two different objections. The first is this: "I've been taught set theory, so I know my way around such sentences as (3) and what the platonists would say is implied by (3). And I can see well enough that platonists will take (3) to imply the schematism (4). Moreover, I have no trouble grasping what (4) is driving at. Indeed, I understand a division of logical space into worlds in which (4) holds and worlds in which (4) does not hold. So (4), although it doesn't qualify as an English sentence, expresses (or is associated in my mind with) a coarsegrained proposition that I can't express in a complete sentence. Call this proposition X. The fact that I grasp X doesn't mean that I have to believe in any such things as sets. That's an ontological commitment that I'm not prepared to make. The error of the platonists is to move from the proposition X associated with (4) to ontologically committing themselves in (3) to the existence of sets."

I think it's clear that anyone who has already accepted tolerance to the first degree will not be impressed by this speech. If the nominalists grasp the proposition X, if they grasp the division of logical space induced by X, then they have the wherewithal for a charitable interpretation of the sentence (3) in the platonist's language: the sentence simply expresses the coarse-grained proposition X. (Henceforth, the propositions

referred to are always to be understood as coarse-grained.) The fact that (4) is not a complete sentence, so the Equivalence Condition cannot strictly apply, seems quite irrelevant.

But suppose the nominalists object instead as follows: "Platonists, who think that (3) expresses a contingent proposition, will naturally associate (4) with that same proposition. But, since I think that (3) expresses a necessary falsehood, I don't associate any proposition with (4). I can complete (4) for the case in which there are two angels, and that gives me a definite proposition, and complete it again for the case of three angels, which gives me another proposition, and so on, but I don't grasp any contingent proposition associated with (4) that might plausibly be taken as what the Platonist means by (3)."

The second objectors anticipate the next move in the game. They realize, as the first objectors did not, that once they concede that they grasp a certain contingent proposition associated with (4) they will have to concede that they have no substantive dispute with the platonists about (3). Since they believe that the platonists' commitment to the existence of sets is substantively mistaken, they must deny that they can associate a definite contingent proposition with (4). If they become tolerant to the second degree, however, they will reverse the direction of their thinking. They will stop worrying about the platonists' "ontological commitments", and once they stop worrying, they will have no trouble associating a contingent proposition with (4).

Let's compare this example to the case of a nominalist who claims not to understand the meaning of the word "ancestor". She understands what it means for x to be a parent of y, or for x to be a parent of a parent of y, or for x to be a parent of a parent of a parent of y, and so on, but she does not understand the word "ancestor". Or so she claims. I think we will not believe her. Unless she is one of those Wittgenstein characters who doesn't "go on" in the normal human way, she surely does understand the meaning of "ancestor." The same point holds for a nominalist who claims not to grasp the proposition expressed by a plural quantification sentence, such as, "Some critics admire only each other." She is surely dissembling about this because of some misguided ontological scruples. If she is human and has a normal intelligence, she does understand the sentence.

Now the case of (4) is more complicated. I think it's plausible to suppose that we can follow what (4) is getting at only insofar as we are guided by our understanding of (3). Our understanding of each sentence supports our understanding of the other. Nevertheless, the nominalist's claim not to understand the contingent proposition associated with (4) does not seem credible. The point of tolerance to the second degree is that it is misguided to pretend not to understand the contingent proposition conveyed by these two sentences—or, if not to pretend, to *force* oneself not to understand—because of worries about "ontological commitment." One should, on the contrary, happily grasp this new contingency, this new way of dividing logical space, and thereby realize that there is no substantive issue about the existence of sets posed by (3).

There are other sentences that can play the same dialectical role as (4). Here are two:

(5) If there would have been sets, then it would have been the case that (3).²⁵

(6) There is nothing about the angels that makes (3) false (if it's false, that is because of the sets, not the angels).²⁶

I have been told that many nominalists would accept (5) or (6) as expressing a contingent proposition. If so, their dispute with the platonists about (3) satisfies the Equivalence Condition and the first degree of tolerance requires them to stop viewing the dispute as substantive. My more immediate interest is in the nominalists who say that they cannot understand what contingent proposition is expressed by (5) or (6). I am sympathetic to those nominalists insofar as it seems to me that I myself can make sense of (5) or (6) only by way of my understanding of the contingency expressed by (3). But my advice to these nominalists is that they not allow their fear of ontological commitment to stop them from grasping the contingency that platonists express with (3) and that can be conveyed with (5) and (6). They ought to admit that they grasp this proposition, and at that point, if they wish to express the proposition only with (5) or (6), but not with (3), that is merely the choice of a language and does not constitute a substantive dispute with platonists who choose to use (3) to express the proposition.

The second degree of tolerance, it will be seen, presupposes and incorporates the first. The fear of ontological commitment can lead philosophers to refuse to understand a proposition expressed by a sentence. But it's not enough that they face up to understanding the proposition, that is only the first step; the second step is to then recognize that it is not a substantive issue which sentences should be used to express that proposition. Philosophers who excel at the first step often falter at the second. They do this when they insist on a distinction between quantification that does, and quantification that does not, carry "ontological commitment", even while implicitly allowing that this distinction makes no difference to the (coarse-grained) propositions that are expressed. Prior, for example, insists that when we say, "I hurt him somehow", this needn't be viewed as ontologically committing us to some item (a way) in which he was hurt, an item that is referred to by "somehow."²⁷ But it seems clear that, whether or not we are so committed, the proposition we express is the same. The point is not to look for maneuvers to evade "ontological commitment", but rather to recognize the potential for confusion and emptiness in this notion.

As I said, I am not able to define the boundaries of tolerance to the second degree. For example, if the first degree does not apply to the issue of the continuum hypothesis, as I'm inclined to think, it may well be that the second degree does apply. (It may be that each side x can agree with the other side by coming to understand somewhat new concepts of sets and numbers, even though these concepts cannot be reduced in terms

²⁵ See Dorr (2005).

 $^{^{26}}$ (6) is a variation of a sentence suggested by Steve Yablo. More subtle formulations are found in Burgess and Rosen (1997).

²⁷ Prior (1971), p. 37. See also Rayo and Yablo (2001).

of the concepts initially available to x.) The basic demand of the second degree is that one not be cognitively paralyzed by misguided commitment anxieties; one must keep one's mind open to understanding new propositions. But how far does this go? I can't say. There is the threat of pretending to understand what one really does not understand, just as there is the opposite threat. Though I'm not able to clarify this further, I'm recommending a framework in which the second degree is placed between the (as I think) clearly correct first degree and the clearly incorrect third degree.²⁸

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²⁸ For criticisms and comments, my thanks to Sally Haslanger, Jack Marley-Payne, Berislav Marusic, Stuart Shapiro, and the metametaphysics workshop at MIT.

Carnap and the Prospects for Easy Ontology

Amie Thomasson

After more than fifty years, metaontology has come back in fashion. And so we now see intensive discussions about whether or not ontological disputes are 'merely verbal', whether the meaning of the quantifier does or could vary in the mouths of disputants, and whether we can understand the quantifier (or a special ontologese quantifier) as having a fixed meaning in virtue of 'carving the world at its logical joints'.

But in most of the recent discussion, there is a deflationary position that has been missed. The missed position is not some obscure newcomer, but rather a view along the lines of Carnap's original form of ontological deflationism—that very deflationism that was thought to have been defeated by Quine as he inaugurated a renaissance for serious metaphysics.

But how could a Carnapian form of deflationism—probably the most prominent historical form of ontological deflationism—have been missed? And what difference would rediscovering it make to contemporary discussions in metaontology? Those are the questions I aim to answer in this chapter.

I'll argue, first, that Carnap's original position was often dismissed because it was wrongly associated with verificationism and anti-realism. But I will argue that there is a way to interpret Carnap's view that does not rely on verificationism nor lead to anti-realism. Carnap's view was then put aside and forgotten given the common assumption that Quine had won the Carnap–Quine debate and made the world safe for serious metaphysics. Later attempts to revive a deflationary position only made matters worse: Putnam's deflationism linked the view to anti-realism, and while Hirsch rescued it from that association, he linked deflationism to a form of quantifier variance. Since then, quantifier variance has come to be considered *the* route deflationists must take. Putnam, Carnap, and Hirsch and other deflationists have all been lumped together as defenders of quantifier variance, and serious metaphysicians have set their sights on defending serious metaphysics by attacking quantifier variance or defending the idea that the quantifier is (or can be) univocal. I'll argue, however, that Carnap in fact is not committed to quantifier variance in anything like Hirsch's sense, and that he does not rely on it in his ways of deflating metaphysical debates. As a result, the contemporary focus in metametaphysics on quantifier variance is the product of a historical wrong turn, and is irrelevant to the prospects for evaluating a truly Carnapian approach.

In closing I sketch a contemporary neo-Carnapian form of deflationism (one which I develop and defend at much greater length elsewhere [2015]). I hope to show that the original and most promising deflationary position has been largely overlooked, and the prospects for a neo-Carnapian metaontology are really rather good.

6.1 Carnap's Approach to Existence Questions

Carnap famously argues that there are two "kinds of question concerning the existence or reality of entities" (1950, 206): internal questions and external questions. To be able to speak about a kind of entity at all, or inquire about its existence, we must introduce terms for the relevant entity as part of a 'linguistic framework'. Internal questions Carnap initially characterizes as "questions of the existence of certain entities of the new kind [asked] *within the framework*"; they include questions (asked within the framework of everyday language) such as "Is there a white piece of paper on my desk?" (1950, 207), or (asked within the framework of natural numbers) "Is there a prime number greater than 100?" (1950, 208–9). The answers to internal existence questions, Carnap holds, "may be found either by purely logical methods or by empirical methods, depending upon whether the framework is a logical or a factual one" (1950, 206). In either case, internal existence questions may be answered straightforwardly using standard analytic methods (here: of mathematics) or empirical methods (here: of looking). There is no special mystery here, and no special role for philosophy. These are existence questions even Hume could love.

The metaphysician's existence questions are generally expressed as highly general questions such as "Do numbers exist?", "Do material objects exist?", "Do properties exist?". But although Carnap uses specific questions as his examples of internal existence questions, that is not to say that general existence questions could not be asked and answered—as internal questions. They certainly can be answered that way, as we can get trivial entailments from, e.g. 'five is a number' to 'there are numbers' (1950, 209). Carnap argues, however, that metaphysical questions, e.g. about the existence of numbers, can't be intended as general internal questions, for:

nobody who meant the question 'Are there numbers' in the internal sense would either assert or even seriously consider a negative answer. This makes it plausible to assume that those philosophers who treat the question of the existence of numbers as a serious philosophical problem and offer lengthy arguments on either side, do not have in mind the internal question. (1950, 209)

Thus, he concludes, the sense in which these general existence questions are raised and seriously debated by philosophers must be an external sense.

External questions are raised "neither by the man in the street nor by scientists, but only by philosophers" (1950, 207). They include questions such as "are there numbers?", or "is the thing-world real?". Carnap argues that if we take external existence questions literally (as attempted theoretical or factual questions), they are ill-formed pseudo-questions. As a result, neither the nominalist's nor the Platonist's answer to the question 'Do numbers exist?', taken as an external question, should be embraced. Instead, the best we can do with them is to consider them as implicitly answering practical questions about whether or not to accept the relevant linguistic framework: "we have to make the choice whether or not to accept and use the forms of expression in the framework in question" (1950, 207). Reconstrued as practical questions about the advisability of adopting a certain linguistic framework, there is here again no special philosophical or ontological insight into reality involved. Instead, the philosopher's work lies in constructing linguistic frameworks (a kind of 'conceptual engineering') and making practical decisions about which to adopt for which purposes.

Contemporary metaphysicians generally respond to this division of existence questions with two skeptical questions: First, why should we care about answers to internal questions if they are only describing what exists 'internal to some linguistic framework', when what the metaphysician cares about is what *really* exists 'outside of all frameworks'? Isn't this a kind of anti-realism on which we can't say what exists 'outside of all frameworks'? Second, why must we think of external questions (if interpreted theoretically) as mere 'pseudo-questions'? Doesn't this dismissal rely on a discredited verificationism?¹

But there is an interpretation of Carnap's internal/external distinction that enables us to answer these questions without appeal to anything like anti-realism or verificationism. What follows isn't so much a work of historical interpretation as appropriation: what I'm interested in is showing that a viable Carnapian position is available. I hope nonetheless that it is at least reasonably faithful to the spirit of his original view (though put in simplified contemporary terms in a new dialectical context).

The basic idea is that we can understand the internal/external distinction in terms of the use-mention distinction. Huw Price suggests this idea as follows:

In my view, it is helpful to frame Carnap's point in terms of the use-mention distinction. Legitimate *uses* of the terms such as 'number' and 'material object' are necessarily internal, for it is conformity (more or less) to the rules of the framework in question that constitutes use. But as internal questions, as Carnap notes, these questions could not have the significance that traditional metaphysics takes them to have. Metaphysics tries to locate them somewhere else, but thereby commits a use-mention fallacy. The only legitimate external questions simply *mention* the terms in question. (2009, 324)

This is the reading I shall develop here, arguing that such a view is invulnerable to the sorts of worry that have led deflationism to be dismissed.

¹ In this vein, Biggs and Wilson (this volume) characterize Carnap as holding that "metaphysical claims are either trivial or meaningless, since lacking any means of substantive confirmation" (1), and as treating external claims as never making sense since they "do not have associated verification conditions" (17).

Internal questions, questions asked *within*, or *using* the framework, are questions that make *use* of the relevant terms (property terms, number terms, material object terms) in accord with the rules introduced. To introduce a linguistic framework, according to Carnap, requires introducing "a system of new ways of speaking, subject to new rules" (1950, 206). The framework of number language "is constructed by introducing into the language new expressions with suitable rules": rules that take us from determiner uses of number terms, as in 'there are five books on the table', to introduce noun terms like 'number' and sentence forms like 'five is a number'. Eventually, we may introduce new terms for properties of those entities (e.g. 'odd' and 'prime'), and variables that take numbers as values in sentences quantifying over numbers (1950, 208). Similarly, the framework of proposition language is introduced by way of rules that license us to introduce variables p, q... to range over declarative sentences, and to introduce the term 'proposition' such that we are licensed to say 'p is a proposition' where any declarative sentence may stand in for p (1950, 210).

Once those rules for introducing the new terms are in place we can use the relevant terms in accord with those rules and straightforwardly evaluate the truth of existential sentences containing those terms.² Making use of those rules, we are able to evaluate the truth of 'There is a white piece of paper on my desk' by engaging in the usual straightforward kind of empirical checks (we look, touch, etc.), and of 'There is a prime number between one and five' by engaging in mathematical reasoning and proof. We can also answer general internal questions in this way. By making use of not only the rules of use for the terms but also 'customary deductive rules' (1950, 208), we can make simple inferences from specific truths like these to general truths such as 'there is at least one material object' and 'there is at least one number'. As Carnap puts it, the statement 'There is an n such that n is a number' "...follows from the analytic statement 'five is a number' and is therefore itself analytic" (1950, 209). Linguistic frameworks for introducing talk of propositions and properties are introduced similarly: in the case of properties, for example, we may begin from the 'thing' language that contains predicates such as 'red', 'hard', and the like, and then introduce noun terms for properties, and variables for which the property terms are substitutable. Finally, "new rules are laid down which admit sentences like 'Red is a property' and 'Red is a color'" (1950, 211).

So understood, we can easily see why questions asked within—or better, *using*—a linguistic framework are straightforward to answer. For example, the very rules for introducing property language (combined with 'customary deductive rules') license us to infer from an ordinary truth like 'the house is red' that 'the house has the property of

² Thus I disagree with Kraut's claim (this volume, p. 36) that if we take Carnap to be recommending the elimination of traditional ontological debates in favor of more explicitly pragmatic disputes, we end up with an 'expressive impoverishment' of language. We can still make all the usual claims of (and express our commitments to) the existence of things of various sorts—taken in an internal sense. Also, I think it is clear that Carnap would reject the notion that examining whether adopting a linguistic framework is warranted would require "reference to things that exist and the best way to deal with them". For Carnap explicitly argues against the view that a question "concerning the existence or reality" of a certain sort of entity "must be raised and answered *before* the introduction of new language forms" (1950, 214).

being red' and so to provide an easy affirmative answer to the general question (asked internally) 'Are there properties?' (cf. Schiffer 2003, 61–71). But that is not to say that what there is depends on what linguistic framework we accept. In fact, Carnap himself clearly insists that although talk, e.g., of propositions is introduced by introducing noun terms for propositions and variables that range over them, that does *not* entail that propositions are linguistic entities or in any way subjective. On the contrary, the rules of use (which do not require any reference to a language or a subject or observer) show that propositions are *not* linguistic, mental, or subjective entities (1950, 210–11)—or, one might add, mind-dependent.

Nor does Carnap, on this interpretation, leave us with a kind of anti-realism on which we can only answer questions of the form "what exists, *according to* this or that framework"³—or, as Andre Gallois (1998) puts it, according to which "whatever ontologically committing discourse we consider, sentences in it will be true only in a framework-relative sense" (1998, 273). On the interpretation I am defending, when Carnap says that internal existence questions are questions of the existence of entities of a certain kind asked "within the framework" (1950, 206), the point is not that claims about what exists are 'internal to' a framework, where that is like saying what exists *in the story* in a work of fiction—i.e. what exists *according to the story*, or according to someone's theory or set of beliefs, or in the content of a game of make-believe. This misinterpretation seems to be in part behind the common resistance to Carnap's view.

Instead, the point is the simple, almost trivial observation that for a question to be asked meaningfully the terms in it must be governed by rules of use: we must be *using* a linguistic framework to ask an (internal) existence question. For example, if we are to ask 'Are there properties?' in a way that has sense, then the crucial term 'property' must be introduced with some rules of use. Once those rules are mastered (rules that license inferences like those above), then specific questions about whether certain properties exist (or whether two red houses 'have something in common') may be simply answered, and the answer to the general existence question (construed as internal) follows trivially from the answers to these specific questions. We can answer direct questions about whether this or that sort of thing exists—not just about whether they exist *according to* this or that theory or framework—but to ask them we must be *using* language; using a framework that establishes the rules of use for the terms used in asking and answering the question.⁴ And the answers we get may be true—though they

³ Price (2009, 342) likewise argues that it is a mistake to think of Carnapians as putting existence claims in the context of a 'disowning preface' such as 'according to the story'.

⁴ Eklund (this volume, p. 171) at one point suggests that "analyticism" seems "entirely separable from any appeal to an external/internal distinction". But on my reading there is a crucial connection: if we take linguistic frameworks to involve constitutive rules of use introducing key terms (and thus to give the basis for a view on which there are analytic truths), then that explains why internal questions are easily answerable (by analytic and/or empirical means), and why external questions—that attempt to sever the key terms from their governing rules—are pseudo-questions. (Compatibly with this, Eklund goes on to suggest that perhaps Carnap would treat internal questions as analytic, and ontological difficulties as arising from trying to ask confused external questions.)

may only be *expressed* using language, that is no reason to think they are true in merely some 'framework relative sense', or anything less than simply true.

What then of external existence questions-why must we think of them as pseudo-questions, if they are construed as factual/theoretical questions? The answer now becomes equally simple. In raising an existence question, we must use a term ('number, 'property', 'proposition'...) to ask "are there numbers/properties/propositions?" But if we are using those terms according to the rules of use by which they come to be introduced to the language, then those rules enable us to resolve the questions straightforwardly (through analytic or empirical means), as above: the question is an internal question. So, if the external question is not supposed to be so straightforwardly answerable (so it is *not* an internal question), then it must be aiming to use the terms in question *without* their being governed by the standard rules of use. But if they attempt to use the terms while severing them from these rules of use, they make the terms meaningless, and the questions pseudo-questions. A question like "Are there huasadoes?" cannot be answered, as 'huasadoe' is a meaningless term, without rules of use that would determine under what conditions 'huasasdoe' is to be applied or refused. So similarly, if we take a familiar term but strip it of its rules of use (not using it in a way governed by those rules), the term is left meaningless, and the existence question unanswerable. That (and not any sort of verificationism) is what makes external questions (theoretically construed) unanswerable pseudo-questions.⁵

This also explains why external questions can be given a pragmatic construal according to which they are really asking about the advisability of adopting the new linguistic framework. For what else is left to do with the terms, except use them? Mention them, of course. So if we are charitable, we can treat external questions not as *using* the disputed terms (governed by their associated rules of use) nor as attempting to use them while severing them from their meanings, but rather as *mentioning* the terms and raising the pragmatic question of whether we should adopt the terms (of the number-language, property-language, proposition-language) with the associated rules of use. Such pragmatic questions can be meaningfully formulated and debated, and so if we want to make some sense of the debates of serious metaphysicians, we can treat them as engaged in that sort of dispute.⁶

On this interpretation, then, we get an easy approach to those existence questions *that can be meaningfully stated and asked.* If we ask a general existence question such as

 $^{^5}$ Though Carnap does occasionally appeal to verificationism, the point here is that his deflationary position may be understood in a way that does not rely on it.

⁶ Eklund objects to this interpretation of Carnap, saying that its 'sticking point' concerns "what justifies taking metaphysicians to purport to ask external questions in the sense now at issue. Do metaphysicians really not aim to respect the rules of language when asking their questions?" (this volume, p. 171) But this misunderstands the point—which is not to give an interpretation of what metaphysicians *think* they are up to or how one should characterize their aims in ways they would accept. Instead, the point is to see what (if any) sense can be made of their debates (an analysis that may involve regarding them as misguided about what they can be doing). Indeed as Creath (this volume, p. 190) argues, Carnap may best be seen as making a *proposal* of a clearer and more productive way of understanding what we can legitimately be up to in such debates.

'are there numbers?', 'are there properties?', 'are there propositions?', using those terms *in the only sense they have—using the rules by which they are introduced into the language*, the answer is a straightforward, easy 'yes'. If we are spoiling for a debate (if it is to be meaningful), we must undertake it on other territory: regarding whether we should use these terms, governed by their customary rules of use, at all.

Some who go this far with Carnap nonetheless resist at this stage, on grounds that it seems to make it totally *arbitrary* which linguistic framework we use, and thus which assertions of existence we make. But this is a needless worry, for Carnap himself acknowledges that some languages may be better than others for various purposes, and that there may be theoretical issues involved in determining which language is best for a given purpose (or set of purposes). The acceptance of a linguistic framework can "be judged as being more or less expedient, fruitful, conducive to the aim for which the language is intended" (1950, 214). The decision to accept a language, such as the thing language:

will nevertheless usually be influenced by theoretical knowledge, just like any other deliberate decision concerning the acceptance of linguistic or other rules. The purposes for which the language is intended to be used...will determine which factors are relevant for the decision. The efficiency, fruitfulness, and simplicity of the use of the thing language may be among the decisive factors. And the questions concerning these qualities are indeed of a theoretical nature. (1950, 208)

The rules we adopt need not be arbitrary, given our purposes, since some rules may serve the purposes better than others.

So why was the Carnapian deflationary approach to existence questions discarded, left behind in the history of philosophy, with Quine's brand of ontology soon to take over and dominate for the next sixty years or more? For that, we need to move to the next stage of the story.

6.2 Whatever Happened to Carnapian Deflationism?

If we ask why Carnap's deflationary approach fell by the wayside and serious metaphysics made a comeback, the answer usually begins with the Quine–Carnap debate. Around the same time as "Empiricism, Semantics, and Ontology" (1950) came out, Quine was laying out his own vision for 'ontology'—most famously in "On what there is" (1948/2001), and he directly criticized Carnap's position immediately after it was published, in "On Carnap's Views on Ontology" (presented at a colloquium with Carnap in 1951, and published later that year).

After reviewing his own approach to ontological commitment, the core of the latter paper is devoted to criticizing Carnap's distinction between internal and external questions. Quine recasts Carnap's internal/external distinction as 'derivative' from another more basic distinction: the distinction between *category* questions and *subclass* questions. Category questions, as Quine defines them, are "questions of the form 'Are there so-and-so's?' where the so-and-so's purport to exhaust the range of a particular style of bound variables''; subclass questions are questions of the same form "where the so-and-so's do not purport to exhaust the range of a particular style of bound variables'' (1951, 207).

Carnap's internal questions then, on Quine's view, are by and large *subclass* questions: they ask, of a general kind of entities (say numbers), whether there are any that have particular other features (say, are prime)—where the entities enquired about would not include *all* of the numbers, but only a subclass of them. Quine acknowledges, however, that internal questions may also take the form of category questions "when these are construed as treated within an adopted language as questions having trivially analytic or contradictory answers" (1951, 207). That is, we may also ask general existence questions about *all* of the entities of a given category (which would exhaust the range of the introduced style of bound variable) in an internal way, and we do so if we treat them as being answerable trivially, by moves such as going from 'five is a number' to 'there is a number'. Carnap's external questions Quine describes as *category* questions asked "before the adoption of a given language" (1951, 207). This seems to be compatible with the understanding I have suggested above of external questions as not *using* the terms (once a language has been adopted), but rather implicitly *mentioning* them as we consider "the desirability of a given language form" (Quine 1951, 207).

However, Quine argues, the distinction between category and subclass questions depends on a "rather trivial consideration" (1951, 208) of whether we use different styles of variables for different sorts of thing. For we may choose to adopt a single style of variable for several sorts of thing, and if we do, then even general questions of existence, e.g. of numbers, abstracta, physical objects, can be phrased as *subclass* questions: informally, they may be thought of as asking, say, of all the *things* there are, whether any are numbers (and thus as parallel to asking, of all the *numbers*, whether any are prime). Since such purported external existence questions may be turned into internal (subclass) questions by simply adopting a style of variable to range over a more inclusive domain, Quine concludes, the distinction between category questions and subclass questions is of little interest, since it varies given "logically irrelevant changes of typography" (1951, 210).

But although it occupies the vast majority of this influential article, the discussion about styles of variables, and category versus subclass questions, is really a technical sideshow distracting from the real metaontological issues. For if I am right above, the real issue is not (and never was) the distinction between category and subclass questions: that is Quine's own imposition. Carnap's internal/external distinction is not the same as Quine's subclass/category distinction—as can be readily seen by the fact that category questions may be asked either as internal questions (answerable trivially) or as external questions.

The real distinction instead is between existence questions asked *using* a linguistic framework and existence questions that are supposed to be asked somehow without being subject to those rules—asked, as Quine puts it 'before the adoption of the given

language'. That distinction is not in the least undermined by Quine's arguments that the distinction between category and subclass questions rests on trivial typographical decisions.

Quine only arrives at what he himself calls the 'basic point of contention' between himself and Carnap in the penultimate paragraph of "On Carnap's Views on Ontology": whether to accept Carnap's view that internal questions may be easily answered by analytic or empirical means, while external questions can only be sensibly understood as purely pragmatic questions of whether to adopt a certain linguistic framework. This three-way division of questions (into the analytic, empirical, and pragmatic) relies on the analytic/synthetic distinction, and that is what the real core of disagreement between Carnap and Quine comes down to. That distinction is required to distinguish the empirical nature of existence questions such as 'are there black swans?' from the analytic nature of existence questions such as 'are there prime numbers between 5 and 10?', and to maintain the idea that many of the metaphysician's most general existence questions (taken internally) can be answered trivially by analytic means. This distinction is also required to distinguish the purely pragmatic issue of which linguistic framework to choose (a pragmatic issue that nonetheless, as I have emphasized above, may be empirically influenced and informed) from the empirical issues about what true statements (including what existence claims) may be made using that linguistic framework.

Quine, of course, had by this stage already rejected the analytic/synthetic distinction in "Two Dogmas of Empiricism" (1951/2001) and elsewhere. Without the analytic/synthetic distinction, Quine can't (with Carnap) accept a division of labor between constructing and pragmatically selecting among linguistic or conceptual frameworks on the one hand, and empirically determining the truth of statements made using that framework on the other hand.⁷ Nor can we say that (given the rules of the linguistic framework we use) questions about the existence of numbers, propositions, properties and the like may be answered through trivial analytic means.

Quine's reasons for rejecting Carnapian deflationism (and the basis for his own positive alternative) lie firmly in his rejection of the analytic/synthetic distinction. But, as I (2007, Chapter 2) and others (Strawson/Grice 1956, Russell 2008, McGinn 2011) have argued elsewhere, Quine's arguments against the analytic/synthetic distinction are far from decisive, notwithstanding the extraordinary influence they have had on the profession. Even Quine himself backpedals substantially in his later work, allowing that analyticity "undeniably has a place at the commonsense level" (1991, 270). Moreover, as Richard Creath has argued (2004, 49) Quine's arguments against the analytic/synthetic distinction ultimately rest on his behaviorism: it is the failure to find a behavioral criterion for applying the terms that ultimately leads him to reject the distinction (see also my 2007, 34–7).

⁷ On the role of analyticity in Carnap's system, see also Creath (this volume, 190).

It thus becomes a sociological curiosity that (what is taken to be) a Quinean approach to ontology has been nearly universally taken on board, when it relies on his rejection of the analytic/synthetic distinction—a point less universally agreed on— and especially when that in turn relies on his behaviorism—a point most contemporary philosophers would reject.

There is not space here to defend the analytic/synthetic distinction or respond to Quine's (early) attacks.⁸ But the important thing to note is that without good reason for rejecting the analytic/synthetic distinction, Quine's famous criticisms give us no reason to reject Carnap's deflationary picture of metaphysics. Nor were they ever intended to revive anything like traditional serious metaphysics.⁹ As long as room remains for something like Carnap's analytic/synthetic distinction and room remains for the use/ mention distinction, room remains for Carnapian deflationary metaphysics.

6.3 Putnam Takes Deflationism on an Unfortunate Turn

The full story about why Carnapian deflationism about ontology virtually fell off the map for the next several decades may have as much to do with the friends as enemies of deflationism.

The next prominent appearance of something like Carnapian deflationism about metaphysical issues writ large (rather than as applied to particular debates) was in the work of Hilary Putnam (1987, 1990). Putnam of course famously argues for what he calls 'internal realism': "the insistence that realism is *not* incompatible with conceptual relativity" (1987, 17). Conceptual relativity, in turn, he considers to be the idea that the question 'what exists' can only be answered in terms of a particular 'version', that is, in terms of a particular conceptual/representational system. Put in Carnapian terms, that sounds like the claim that existence questions can only be answered *internal* to a particular framework—i.e. (if our earlier interpretation was correct) *using* a linguistic framework which provides rules of use for the terms and thus for answering such questions. Questions asked outside of all 'versions', or external to a linguistic framework, are rejected (at least as long as they are supposed to be 'factual' metaphysical questions). So far, so Carnapian.

But there are two ways in which Putnam's deflationism takes importantly different turns than Carnap's, both of which have had unfortunate consequences. For these differences have deflected the main metaontological dispute away from the central issues and have contributed to making the deflationary project distasteful and keeping it largely underground.

⁸ Of course later philosophers have also raised other arguments against analyticity—see, e.g., Harman (1999) and Williamson (2007). For responses to Quine's attacks, see Strawson and Grice (1956), Boghossian (1997), my (2007, Chapter 2), and Russell (2008). For responses to Williamson, see my (2015, Chapter 7).

⁹ See Price (2009, 344).

First, Putnam ties the idea of conceptual relativity to the idea that certain core terms used in metaphysical debates—'exists' and 'object'—have different meanings in different 'versions'. As he writes:

... it is no accident that metaphysical realism cannot really recognize the phenomenon of conceptual relativity—for that phenomenon turns on the fact that *the logical primitives themselves,* and in particular the notions of object and existence, have a multitude of different uses rather than one absolute 'meaning'. (1987, 19, italics original)

And elsewhere:

... the idea that there is an Archimedean point, or a use of 'exist' inherent in the world itself, from which the question 'How many objects *really* exist?' makes sense, is an illusion. (1987, 20)

Second, Putnam uses this observation in the service of a general denial of 'Realism,'¹⁰ for from the fact that a question like 'how many objects are there' can only be answered within a version, Putnam concludes that we must reject the idea that there are objects that exist independently of our conceptual scheme:¹¹

What is wrong with the notion of objects existing 'independently' of conceptual schemes is that there are no standards for the use of even the logical notions apart from conceptual choices. (1987, 35–6)

These two features of Putnam's view have been very influential. The first, the idea that 'exists' and 'object' vary in meaning, turned metaontological debates to focus heavily on the idea of 'quantifier variance' for the next twenty years or more. The second, the association between ontological deflationism and anti-realism, led many philosophers to reject deflationism, keeping it very much a minority position until quite recently.

But both of these features are separable from Carnapian deflationism. It should by now be well known that it is simply a mistake to think that if we hold that the meanings of terms like 'object' or 'exists' vary, then we are committed to denying that objects exist independently of conceptual schemes. The idea has been quite fully and properly demolished (Hilpinen 1996, Hirsch 2002a).¹² In brief, the mistake is a use-mention mistake (Hirsch 2002a, 52). The *meaning* of a term like 'object' or 'exists', or of the existential quantifier, may vary according to our conceptual scheme.¹³ And it is surely the case that unless such terms have meaning (as part of a conceptual scheme or linguistic

¹⁰ Where the capital 'R' signifies this is realism on Putnam's reading of it, as committed to three theses:

- ^{1.} The world consists in a fixed totality of mind-independent objects
- ² There is exactly one true and complete description of the way the world is
- ^{3.} Truth involves correspondence between our description and the way the world is.

¹¹ This Putnamian reading comes close to what Eklund labels the 'relativist' understanding of Carnap's frameworks (this volume, 167).

¹² I have also addressed a related point extensively elsewhere (2007, Chapter 3).

¹³ I say *may* here because I don't want to say that the deflationist must be committed to that—on that, see below for more.

framework) a question framed using the following symbols: 'how many objects exist?' cannot be answered (since one or more of the terms would lack meaning). So, without some meaning attached, the question 'how many objects exist?' would be meaningless. True, but trivial. But to say that the meaning of the term 'object' or 'exists'—or of sentences framed using those terms—depends on our conceptual scheme is not at all to say that *objects* (the term now being *used* in accord with the rules of an established language, say English) depend on our conceptual scheme. The meaning of 'planet' similarly depends on our choice of conceptual scheme, but *planets* (now using, not mentioning, the term) don't depend on there being any conceptual scheme whatsoever (cf. Hilpinen 1996).

Let us go back, then, to the first point: that key terms used in metaphysical debates, such as 'objects', 'exists', or the existential quantifier, do (actually) or may (in the mouths of the disputants) vary in meaning. Eli Hirsch showed that quantifier variance did not lead to any conflict with realism and developed Putnam's notion of quantifier variance in new ways. While Putnam argued for actual quantifier variance, i.e. the idea that there is no single absolute meaning for the quantifier and allied notions (1987, 19), Hirsch argues only for *possible* quantifier variance (as he thinks that there is a unified meaning of the quantifier in standard English).

Most of the focus of metaontological debates for about the next twenty years centered on the question of whether the quantifier varies in meaning or not (see, e.g. van Inwagen 1998, 2009; Hirsch 2002, 2009; Sider 2007, 2009). Both have come to be strongly associated with Carnapian deflationism. Thus, for example, Matti Eklund writes:

... it is common to take Carnap to be what I will call an *ontological pluralist:* to hold a view not unlike that today defended by Eli Hirsch (under the name *quantifier variance*) and Hilary Putnam (under the name *conceptual relativity*). (Sometimes Hirsch and Putnam are even described as 'neo-Carnapians'). (2009, 137)

And Kit Fine explicitly attributes quantifier variance to both Carnap and Hirsch (2009, 164 n.2).

While deflationists like Hirsch have embraced quantifier variance, serious metaphysicians like Peter van Inwagen and Ted Sider have largely tried to defend serious metaphysics by arguing against quantifier variance, treating that as the main obstacle. Indeed Sider writes:

The deflationist *must* claim that the participants in ontological debates mean different things by the quantifiers. And so, the deflationist must accept that quantifiers *can* mean different things, that there are multiple candidate meanings for quantifiers. In Hirsch's phrase, deflationists must accept *quantifier variance*. (2009, 391)

In arguing against quantifier variance as an attempt to defend serious ontology against deflationism, van Inwagen argues that 'existence' is univocal. He does so by arguing that it is interdefinable with expressions that clearly apply in the same way to objects of

different types. First, he argues, following Frege, that "... existence is closely allied to number":

To say that unicorns do not exist is to say something very much like this: the number of unicorns is 0; to say that horses exist is to say essentially this: the number of horses is 1 or more...The univocacy of number and the intimate connection between number and existence should convince us that there is at least very good reason to think that existence is univocal. (2009, 482)

Second, van Inwagen argues that 'exists' may also be defined in terms of disjunction and 'all', as "we may replace the statement that there exists a prime number between 16 and 20 with the statement that 17 is a prime or 18 is a prime or 19 is a prime," and (van Inwagen adds) that those are *all* the numbers between 16 and 20.¹⁴ But 'or' and 'all' van Inwagen takes to be 'obviously univocal' (2009, 484).

There is an interesting point to this line of argument that may be put succinctly: 'exists' and the existential quantifier are (like number terms, 'or', and 'all') topic-neutral: they are *formal* terms which may be conjoined with *material* terms of different categories while retaining their same sense—at least in the sense of retaining the same core rules of use. This seems right. But notice the lineage of the idea: van Inwagen attributes these observations to Carnap, the father of deflationism, and Frege, the grandfather of deflationism (as both teacher of Carnap and inspiration for the deflationary neo-Fregean position in the philosophy of mathematics). This should give us a clue already that something has gone funny, and that the deflationist position may not really be in tension with the idea that expressions like the quantifier and 'exists' are formal expressions that may be used univocally by disputants in ontological debates.

But it is a historical mistake to think that Carnap's way of deflating ontological debates was to appeal to quantifier variance, and it is a philosophical mistake to think, as Ted Sider puts it, that "deflationists must accept *quantifier variance*" (2009, 391).

6.4 Was Carnap Committed to Quantifier Variance?

It is understandable that Carnap might be associated with quantifier variance. He did of course embrace the principle of tolerance, and with it the idea that we should permit various different logical forms, and reject the attempt to find the one 'true' logic. And one may of course choose to use the letters "exists" or the symbol "∃" in different ways. There is also a trivial sense in which one might think of Carnap as accepting that the quantifier has a different meaning, say, when used by Platonists than when used by nominalists. Since, for Carnap, the meaning of a term is given by the meaning postulates that are analytic within the relevant framework, any change in the analytic claims that use a given term in a framework counts as a change of meaning for that term.

¹⁴ He attributes the argument to Carnap but says he hasn't been able to locate it in his writings (2009, 484).

When we introduce a term like 'number', with rules that make it analytic that, say, 'the number 5 exists', we thereby also change the analyticities for 'exist', and so, to that extent, effect a (slight) change of meaning for 'exists'.

But this sort of trivial change in the meaning of the quantifier is not what Hirsch and Putnam had in mind, nor what van Inwagen and other serious ontologists argue against. First, it clearly doesn't involve denying van Inwagen's view that "affirmation of existence is denial of the number zero" (2009, 483); on the contrary, it is quite consistent with the view that 'exists' is a formal term governed by core rules of use (connecting it with rules for the quantifier, for number claims, and for disjunction) that *do not vary* even when we add new material terms to the language.¹⁵ Indeed we need only propose a small shift—to count the meaning of a term as given by certain *core* rules of use (bringing us close to something like Horwich's (1999) view) rather than as tied to *all* analytic claims involving that term—to license us to say that the meaning of the quantifier doesn't vary across these different frameworks that differ in adopting additional material terms.

Second, it is clear that this is not the sense of 'quantifier variance' that Hirsch uses as a way of trying to undermine serious metaphysics. For Hirsch is concerned not with the trivial changes in analyticities involving the quantifier that may be introduced when we introduce new terms to a linguistic framework, but rather with changes in the truth conditions for (all) quantified statements, an implicit raising or lowering of standards for existence. So, for example, Hirsch treats the paradigm of quantifier variance as a change in the truth conditions for quantified statements (2002, 54) that makes existence statements that are true in one language, e.g. 'The mereological sum of my nose and the Eiffel Tower exists', which is true in Hirsch's 'M-use' [mereologist's use] come out as false in another language (Hirsch's 'A-use' [the anti-mereologist's use]) (2002, 55-6). The two languages, as Hirsch presents them, don't differ in that one accepts and the other rejects the *terminology* of 'mereological sum': both are apparently accepting (using) this terminology in making their declarations that there is or is not a mereological sum of nose and tower. Instead, they differ in the standards they require for something to exist: those employing the A-use count 'there exists something composed of the F-thing and the G-thing' as true only if those expressions refer to things that are united in some special ways; those employing the M-use count that sentence as true no matter how the F-thing and G-thing are connected (2002a, 55-6).

The position of quantifier variance to which Sider thinks the deflationist must be committed (and against which he argues, in defense of serious metaphysics) is the Hirschian position. Sider initially describes deflationism as the view that:

[1]...something is wrong with ontological questions themselves. Other than questions of conceptual analysis, there are no sensible questions of (philosophical) ontology. Certainly there are

¹⁵ This of course is not to deny that there are differences between van Inwagen's and Carnap's views: Carnap treats existence claims as implicitly second order; van Inwagen rejects this (2009, 483–4). Van Inwagen also clearly would reject the Carnapian way of introducing new linguistic frameworks, holding instead that one must be justified in introducing new terms by thinking that there are things for them to refer to (2009, 491), a viewpoint Carnap clearly rejects (1950, 214).
no questions that are fit to debate in the manner of the ontologists. To return to the case at hand: when some particles are arranged tablewise, there is no 'substantive' question of whether there also exists a table composed of those particles, they say. [2] They are simply different— and equally good—ways to talk. (2009, 385–6; inserted numbers mine)

And he attributes this view to Carnap, Hirsch, Putnam, and me alike (2009, 386 n. 10). But one thing the above discussion should make clear is that there is a crucial difference between [1] and [2]. The Carnapian deflationist of course accepts [1] that something is wrong with ontological positions, and that there are no questions that are fit to debate in the manner of the ontologists. But she or he does not accept [2], that when one ontologist asserts that there are tables, and another denies this, they are both speaking truths in their own language (with the variance amounting to a matter of how each chooses the meaning of the quantifier). Instead, the Carnapian deflationist holds that the table-denier *is not making any theoretic claim we can make sense of*—since if he accepted the term 'table' with its customary rules of use, it would be an obvious truth that there are tables. And so there is no need for the Carnapian deflationist to accept that the disputants "mean different things by the quantifiers" (Sider 2009, 391) to make sense of the idea that both speak truly (for in fact the Carnapian denies that they both speak truly!). There is a way of deflating ontological debates that does not rely on quantifier variance in Hirsch's sense at all. That way is Carnap's.

So the crucial point here is that Carnap was not committed to quantifier variance in anything like Hirsch's sense, or the sense serious metaphysicians such as van Inwagen and Sider have argued against, and that he does not make use of the idea of quantifier variance in his way of deflating ontological debates. Carnap does not say that ontological debates turn out to be merely *verbal* debates *because the disputants are using the quantifier in different senses*.

His diagnosis is quite different: the difference between the Platonist and the nominalist doesn't lie in the truth conditions they associate with quantified sentences, but rather in what *material* terms the disputants have introduced and accept (with what rules of use). The nominalist must be understood as implicitly refusing to admit noun terms for numbers (and refusing to quantify over numbers), or refusing to accept or make use of the general predicate *number* (though she will use number terms in their role as determiners—i.e. she will allow 'there are four books on the table' but not 'four is an even number') or for properties (she will say 'the phone is red and the shirt is red' but not 'there is some property that the phone and shirt have in common').

As a result, the nominalist employs a different framework from the Platonist about numbers or properties, and will not accept sentences such as 'numbers exist' or 'properties exist'. But the point is not that 'exists' is being used in a different sense by the nominalist and Platonist, but rather that the second accepts while the first rejects the linguistic framework that includes the relevant material concepts of property or number. As Richard Creath puts it, "To Carnap, this insistence [from nominalists] that we avoid talking of abstracta is just a prohibition on certain linguistic forms and a dogmatic one at that" (this volume, 196). For if the nominalist accepted those concepts (or the corresponding noun terms) with the same rules of use shared by the Platonist, she would also have to embrace truths like 'there are numbers', as that would follow trivially from the rules that help constitute the framework. In Creath's words "Carnap's nominalist lacks the resources even to say that there are no numbers" (this volume, 197). In short, there is no way to make sense of the nominalist's position as both making use of the familiar concept of *number* and of denying that there are numbers. The best way to understand the dispute is as a pragmatic dispute about whether to accept the number framework: one which differs from the thing framework not in using 'there is' with a different meaning, but rather in introducing new nouns, predicates of higher order to apply to them, and variables for which they can be substituted.

As a result, all the discussion of quantifier variance that has been the focal point of metametaphysical discussions turns out to be a sidetrack from the core issues between Carnapian deflationists and serious neo-Quinean ontologists. And the serious ontologist's defenses of the idea that there is a single (actual or available) meaning for the quantifier, however successful they may be, do nothing to defeat Carnapian deflationism. The truer legacy of Carnap's metaontological approach lies not in Putnam, but in those inspired by Carnap's own teacher, Frege: the neo-Fregeans in the philosophy of mathematics.

6.5 The Easy Approach to Ontology

I have argued that despite its prominent origins, a Carnapian deflationary position has been largely missed in recent metaontological debates. On the interpretation of a Carnapian view developed above, we get what might be called an "easy" approach to those existence questions *that can be meaningfully stated and asked*. If we ask a general existence question such as 'are there numbers?', 'are there properties?', 'are there propositions?', using those terms *in the only sense they have—using the rules by which they are introduced into the language*, the answer is a straightforward, easy 'yes'. If we are spoiling for a debate, we must undertake it on other territory: regarding whether we should use these terms, along with their customary rules of use, at all, i.e., regarding whether we should adopt the relevant linguistic framework.

This is the basic outline of the view to follow—the so-called 'easy approach' to ontology.¹⁶ The sense in which existence questions turn out to be 'easy' on this model must be understood carefully, however. The idea, coherent with Carnap, is that existence questions (that are fully meaningful—internal—questions) can be answered straightforwardly, using just conceptual and (often, but not always) empirical methods. But to say that existence questions can be answered straightforwardly by conceptual and/or empirical means, of course, is not to say that they can always be answered without much thought in a minute or two—though often they can be, for example in those

¹⁶ Unfortunately there is only room here to present it in outline form. For a fuller development see my (2015), as well as the earlier work by Schiffer (1994, 1996, 2003) and Hale and Wright (2001).

cases where they may be answered by undertaking trivial inferences from uncontested truths. Nonetheless, it is perfectly coherent with the easy approach to allow that sometimes the empirical work may be difficult (consider, for example, questions about the existence of living members of a reclusive endangered species), or even that the conceptual work may be difficult (for example, if it is difficult to work out what our conception of 'freedom' amounts to, it may be difficult to answer the question of whether we have free will). What is significant about the 'easy' approach is that existence questions are treated as 'easy'-and non-mysterious-methodologically. In so doing, it squeezes out room for the 'serious' metaphysics so commonly pursued-in which practitioners commonly think of themselves as answering questions that are, in Ted Sider's phrase, 'epistemically metaphysical' in the sense that they "resist direct empirical methods but are nevertheless not answerable by conceptual analysis" (2011, 187) and thus enables us to substantially demystify the epistemology of metaphysics. Nor does the fan of 'easy ontology', in contrast with the neo-Quinean, treat the ontologist's typical existence questions as to be answered by inference to the best explanation.¹⁷ The question, say, of whether properties exist is (on the easy ontological view) misrepresented if we think of it (on analogy with scientific existence questions) as a question of what 'positing' properties may 'explain', rather than as a descriptive question that can be straightforwardly answered by making use of our conceptual competence.

What difference might reviving the easy approach make to contemporary metaontological debates? It could make a big difference, as it makes available an approach to deflating ontological questions that does not rely on quantifier variance and thus which has been largely untouched in recent defenses of serious ontology. It may be the deflationist's best hope, and the serious metaphysician's biggest concern.

There are three important features of the view that follows:

- 1. It treats the quantifier as a formal notion with a single core rule of use
- 2. It holds that, given the rules of use for the quantifier and for the material terms introduced, well-formed existence questions are straightforward to answer by analytic or empirical means, and makes many ontological debates easy to resolve via inferences from uncontroversial truths
- 3. It thus squeezes out room for serious metaphysics, construed as an attempt to answer deeper factual questions about what 'really exists' via 'epistemically metaphysical' means.

¹⁷ This is a conception of ontology we have independent reason to regard with suspicion. For unlike the scientific case, there is seldom any difference in empirical adequacy among competing *ontological* 'theories', and competing ontological views typically simply trade one theoretical virtue for another (see Bennett 2009 and Kriegel 2013). Moreover, as Bricker (forthcoming) points out, it is hard to see the remaining theoretic virtues as giving more than a parochial, pragmatic reason for preferring one theory to another (e.g. that it is easier for us to use)—not as giving reason to think this theory is really the true one (as the serious ontologist needs).

We can begin from the idea that the terms in the English language we use in conducting ontological debates are governed by rules of use—rules that may take different forms, but that must be in place if that very term is being used at all (to that extent, they may be considered 'constitutive' rules). Given a certain understanding of the rules of use for the quantifier and for sortal nouns, those existence questions that are asked *using* the relevant terms become (in the above sense) easy to answer.

6.5.1 Rule of use for the quantifier

First, to make it clear that this approach does not presuppose quantifier variance, we may begin with a hypothesis about a core rule of use for the quantifier both in ordinary English and in typical ontological debates: Following Horwich (1999) in using * quotes as a way of picking out terms that preserves their meaning, we can express the fundamental, formal rule of use for 'exists' as follows: *supposing we have a well-formed sortal term *K**:

E: Ks exist iff *K* refers.

Where this is not to say that the two assertions are *equivalent*: the first is in the object language, and thus about the world; the second is in the meta-language, and so is about language. The view is merely that E expresses the fundamental rule of use for 'exists', a rule that enables us to move up and down the semantic slide, from talk about existence to talk about reference and back. Claims of existence are in turn interchangeable with quantified claims: Ks exist iff $\exists x(Kx)$.¹⁸ Given these licensed transformations, existence questions (and quantificational questions about what there is) may be answered as easily as reference questions involving sortal terms may be.

6.5.2 Rules of use for sortal nouns in the thing language

Noun terms—here for simplicity I will only discuss sortals—also are governed by rules that determine (among other things) under what conditions they refer. Let me begin with those basic sortal terms found in what Carnap calls the 'thing language', which we naturally accept "early in our life as a matter of course" (1947/1956, 207). A term like 'table' or 'paper' would be part of this 'thing language', and Carnap held that speakers who mastered the use of these terms could then, if using them, easily resolve questions like 'is there a table in that classroom?' or 'is there a piece of paper on my desk?' empirically by ordinary means like going and looking.

One way to put this idea is that such terms come governed by application conditions that speakers master in learning under what circumstances the term is properly applied and refused. They may then answer such existence questions (expressed using the terms) straightforwardly by evaluating whether the application conditions are met. (Note that application conditions mustn't be understood as "*K* applies if a K exists",

¹⁸ Thus those undertaking easy ontology, like neo-Quineans, embrace a traditional view that treats the quantifier as an existential quantifier, making quantified claims equivalent to existence claims. This, of course, is an assumption rejected by others, including neo-Meinongians, and Jody Azzouni (2004).

as that would be circular. They also needn't be identified with verification conditions, and needn't be stateable at all, as long as they are learnable. For further discussion see my 2015, Chapter 2.)

Given mastery of these basic rules of use for our terms (in the form of mastering the term's application conditions) we can answer such existence questions framed *using* terms of the thing language. For speakers who have mastered the application conditions for the term 'paper' are in a position to determine whether they have been fulfilled (e.g. by looking on my desk), and thus can easily answer the relevant existence question.

Another way to see how the recognition of these rules makes resolving existence questions 'easy' is that any existence debates that arise (and are expressed using the thing language [e.g. 'are there tables?']) may be resolved easily by way of trivial inferences from uncontroversial truths accepted by all disputants. Suppose someone accepts that there are particles arranged tablewise but denies that there are tables. Competent speakers can make use of their linguistic mastery to judge that any situation that makes it true that there are particles arranged tablewise is a situation in which the application conditions for 'table' are fulfilled. And so, from the uncontroversial truth 'there are particles arranged tablewise is a situation in which the application conditions for 'table' are fulfilled. And so, from the uncontroversial truth 'there are particles arranged tablewise in my dining room', competent speakers are licensed to infer 'there is a table in my dining room', thus easily resolving this debate—provided the debate is considered as regarding an *internal* question *using* the term 'table' in accord with its standard rules (which provide that a situation in which particles are arranged tablewise is sufficient for 'table' to apply and, thus, for there to be tables).

6.5.3 Introducing nouns in other frameworks

New sortals may be introduced on the basis of a previous framework. So, e.g., on Carnap's view we can initially use numerals like 'five' in the determiner position, as in "there are five books on the table". But we can go from there to introduce a general noun term "number" and sentences in which it appears, as in 'Five is a number', and then introduce variables to range over the numbers in quantified sentences (1947/1956, 208). Similarly, adjectival words like 'red', 'hard', and the like may be used in describing concrete objects, but we can go on to introduce a general term 'property' and variables ranging over property terms, and new rules for forming sentences with these terms in the nominative position, e.g. 'Red is a color' and quantified sentences like 'These two pieces of paper have a color in common', from which we may infer the (internal) statement that there is a color—and thus that there is a property (1947/1956, 211–12).

Given the rules of use that introduce such new terms, existence questions formulated *using* those terms are also easy to answer, for the rules of use for the terms enable us to make easy inferences from basic, uncontroversial truths to the existence of the abstracta in question. This basic idea has been developed by neo-Fregeans in philosophy of mathematics, who point out that the rules governing introduction of number terms license us to make an inference from an uncontroversial claim like: 'The cups and saucers are equinumerous' to 'The number of cups = the number of saucers' to 'There is a number'. Stephen Schiffer develops a similar idea for other cases (events, properties, states, propositions), arguing that 'something from nothing' inferences take us from an uncontroversial claim like: 'this shirt is red' to 'this shirt has the property of redness', to 'there is a property'.¹⁹

So understood, the pleonastic approach developed by Schiffer and the neo-Fregean approach developed by Hale and Wright are ways of making evident how easily, typically trivially, existence questions may be resolved *if they are treated as internal questions: questions that involve *using* the terms of the language, according to established rules.* Such writers and their readers occasionally, however, make a mistake (e.g. Schiffer [1996]): presenting it as a *deflationary ontological* view about the entities in question (numbers, properties, *propositions*, etc.)—taking them to have a 'minimal', 'pleonastic', or 'reduced' ontological status (as compared with, say, Platonist rivals).

But (as I argue more thoroughly elsewhere [forthcoming]) seen in the Carnapian context we can see that that move is mistaken: the right approach is to say that there are numbers, properties, propositions, *in the only sense these terms ('number', 'property', 'proposition') have.* The only sense these terms have is the sense used in asking the internal question, and so understood the answer is a simple (not qualified, reduced) 'yes'. The fact that the same procedure, and possibility of a similarly easy answer to the existence question, is available whether it regards tables, properties, or numbers, again helps make it evident that the numbers, properties, and propositions to which we become committed are not 'deflated' or 'reduced' entities in some sense that can contrast them with more robust entities like tables. The neo-Carnapian *metaontology* may be deflationary (in that it deflates traditional ontological debates), but the resulting first-order *ontology* is not deflated: it is a simple descriptive realism that asserts that there are Xs in the only sense 'X' has.

This gives us one side of the Carnapian view: the idea that, given the rules of use for the terms involved (here, the quantifier and material terms), existence questions framed *using* the terms are straightforward to answer. The existence questions 'are there tables?', 'are there numbers?', 'are there properties?' are here construed as highly general *internal* questions asked *using* the terms in question in accord with their extant rules of use; it is making use of those rules that makes the questions easy to answer and the debates easy to resolve.

Here, as on Carnap's original view, we can see that (if these really are rules of use for the terms in question), the metaphysician's 'deeper' questions cannot be understood as 'theoretical' or factual questions that *use* the terms in accord with their extant rules. For if they are, then they are easily answered in the affirmative—and the answers seem so easy to come by that it doesn't seem that this can be what the serious metaphysicians are really engaged in debating.

¹⁹ There are, however, also important differences between their views, e.g. that the neo-Fregean's conceptual truths are bi-conditionals, whereas Schiffer makes use of only one-way entailments from the uncontroversial claim to the ontological claim.

That doesn't mean there is no work to be done by metaphysicians, but it lies on the side of conceptual explication (in explicating the rules of our common language that may be made use of in answering the internal questions), conceptual choice on carefully considered pragmatic grounds, and what Carnap might have called 'conceptual engineering', in formulating new conceptual/linguistic systems for new purposes—not in deep theoretic inquiries into what *really* exists.

6.6 Conclusion

I have argued that the Carnapian approach to metaontology has been rejected and left behind for the wrong reasons, and that there is a clear way to understand it that is not subject to accusations of verificationism or anti-realism, and that is not tied to quantifier variance. As I have argued, the easy approach to ontological questions seen in neo-Fregean and Schifferian positions (and generalized in my work), not the internal realism of Putnam or quantifier variance of Hirsch, is the true heir to Carnapian deflationism about ontology—or at least to his understanding of the only sense of those existence questions on which they are factual questions that make sense (namely, the internal sense).

While this brand of metaontological deflationism faces challenges of its own (bad company objections,²⁰ fictionalist objections,²¹ the problem of 'too much content,²² etc.) it clearly is not the least threatened by the prominent arguments that have been raised against quantifier variance, verificationism, and anti-realism—for it is tied to none of these positions. The prospects for such a neo-Carnapian deflationary approach, properly understood, so far seem rather promising.²³

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²⁰ Versions of the bad company objection have been raised by Field (1984), Boolos (1990), and Heck (1992), and applied to the easy approach by Eklund (2006 and 2009). For a useful overview of the literature, see Linnebo (2009). For responses to bad company objections, see Schiffer (2003) and my (2015, 253–71).

²¹ The fictionalist objection is (roughly) that the conclusions of easy arguments should be read as implicitly in the scope of a pretense operator and so not be taken ontologically seriously. This has been most prominently raised by Stephen Yablo (2000, 2001). For a response to the fictionalist objection, see my (2013 and 2015, 177–207).

 22 Evnine (this volume) develops this objection—raising doubts that the easy approach to existence questions can ensure the existence of entities with the properties supposed to be definitive of them. For a reply to this objection, see my (2015, 221–30).

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7

Much Ado about Something-from-Nothing; or, Problems for Ontological Minimalism

Simon Evnine

Ontological minimalism with respect to a kind K is a view which combines realism about Ks with a deflationary metaontological take on how to understand such realism.¹ Nihilists and maximalists (or 'serious metaphysicians' as maximalists are sometimes called) about Ks disagree with each other over whether Ks exist, but they take their disagreement to be a standard, first-order metaphysical one. The minimalist's view is irenic in this context. It says, with the realist, that there are Ks, but because of its deflationary understanding of this claim it also says that the nihilist has correctly described what there is. To illustrate: Peter van Inwagen (1990) is a nihilist about all types of complex objects other than organisms. So, in particular, he denies the existence of chairs, holding that where others take there to be a chair, all that exist are simple things (pieces of wood, for the sake of argument), arranged chair-wise. The maximalist about chairs, by contrast, affirms that there are chairs as well as pieces of wood arranged chair-wise and that this is a substantive claim. Minimalism holds that there are indeed chairs but maintains that it is analytic, and hence not a substantial piece of metaphysics, that if there are pieces of wood arranged chair-wise, then there are chairs.

Ontological minimalism is an increasingly popular view, with a number of defenders and sympathizers. It is sometimes described as neo-Carnapian since it finds its roots in Carnap (1950). In this chapter, I shall examine the views of two prominent contemporary minimalists, Stephen Schiffer (2003) and Amie Thomasson (2001, 2007, 2009a, 2009b, 2015, and this volume) (and of these, I shall focus mostly on Thomasson). My contention will be that there are serious difficulties in implementing their version of minimalism.² The Thomasson/Schiffer approach is not the only version of

¹ Ontological minimalism (or just minimalism) *sans phrase* will just mean ontological minimalism with respect to a large and/or important range of kinds.

² A word on terminology. The expression "ontological minimalism" is taken from Thomasson (2001), where she uses it to describe her own and Schiffer's views. Since then Thomasson has moved away from

minimalism, nor is minimalism the only version of deflationary metaontologies, many others of which are also linked to Carnap.³ My arguments, here, are very much focused on the details of the Thomasson/Schiffer variety of minimalism, largely because, I believe, these details have not been adequately examined. Other forms of deflationism face their own, distinctive problems. However, I hold no brief for alternative, non-deflationary metaontologies. Although I shall not explore this theme here, my own sense is that too much attention to metaontology can be bad for your first-order health.

After a more detailed exposition of minimalism in Section 7.1, I begin, in Section 7.2, the exposition of the main problem that I think afflicts it, what I call the problem of too much content. In Sections 7.3 to 7.5, I consider three possible responses the minimalist might make to the critique as so far developed and argue that none of them successfully addresses the problem. In Section 7.6 and 7.7, I resume and complete my critique through an examination of the notion of application as it figures in the minimalist's use of application and co-application conditions for concepts. In Section 7.8, I show that my objection to minimalism is not simply an objection to taking a view that is designed for abstract entities and extending it to concrete entities. Section 7.9 offers a brief conclusion.

7.1 Ontological Minimalism

Thomasson approaches existence questions from the direction of the conditions for the application and co-application of concepts or linguistic terms.⁴ It appears to be a truism that if the kind concept K applies, then Ks exist. What is distinctive of Thomasson's ontological minimalism is evident in two views she has concerning this truism. First, she takes the application conditions of the concept to be, somehow, primary with respect to existence. Secondly, she understands the notion of application in the truism in a particular way. I shall return to this second feature in Section 7.6. With respect to the first, by saying that the application conditions of a concept are primary with respect to existence, I mean that Thomasson thinks that existence questions

that name and prefers "easy ontology." Thomasson (in personal communication) indicates that her reason for moving away from "ontological minimalism" is that it suggests, not her view that the standards for ontological commitment are minimal, but that the entities that exist, according to the view, are somehow minimal, an implication she rejects. It is, however, precisely my contention here that the minimal standards of ontological commitment are connected to a certain minimality in the entities so countenanced. Hence I have found the original name of the view more congenial.

³ See Searle (1995), Brandom (1998), and Hale and Wright (2009) for others in the ballpark of minimalism. (In this chapter, however, "[ontological] minimalism" and its cognates will be restricted to the Thomasson/Schiffer version of the view.) And see Thomasson (this volume) for a discussion of the relation of various kinds of deflationism to Carnap.

⁴ Intuitively, application conditions correspond to questions of existence; co-application conditions to questions of identity. The relation between these two kinds of conditions is crucial for making sense of Thomasson's view, but I will not be in a position to introduce my discussion of co-application conditions properly until Section 7.7.

should be approached via the application conditions of concepts. Determining whether a concept applies involves two components. First, the concept itself, according to Thomasson, includes the conditions under which it is correctly applied. These conditions must be made explicit. In some cases, that will involve the analysis of existing concepts. In other cases, the application conditions will lie on the surface, in the form of an explicit condition. The condition may take the form of a definition of a concept. However, it may also take the form of an existence conditions, according to Thomasson, are to be seen as expressions in the material mode of conditions, associated with and contained within concepts, on how those concepts are to be applied. In this case, the primacy of the conceptual in answering questions about existence will be disguised. The maximalist and the minimalist will appear to agree over some (apparently first-order) existence condition for Ks of the form:

EC) A K exists if and only if...

What separates them is that for the minimalist, this existence condition is accepted because it expresses something that pertains to the very concept of a K whereas, for the maximalist, the concept of a K by itself does not suffice to guarantee the correctness of the existence condition. For the minimalist, a condition like EC will be analytic, whereas for a maximalist, it will be a substantive piece of first-order metaphysics.

The second component in thinking about the existence of Ks is determining whether or not the application conditions for the concept, or the existence conditions given by the right-hand side of a biconditional of the form EC, obtain. The work involved in determining this may be easy or difficult, depending on the concept and conditions at issue. But whatever the difficulties are in determining whether the application or existence conditions obtain, the point of calling ontological minimalism "the easy approach to ontology" (Thomasson 2009b, 2) is that there is no further difficulty in deciding whether those conditions are correct. They are taken to be correct by definition.

Schiffer approaches the issue with his notion of a something-from-nothing inference (SFNI). An SFNI is an inference with a conclusion that implies the existence of something of a given kind K from a premise that does not. A favored example of his is the following:

1) This rose is red

therefore

2) This rose has the property of redness

We infer a proposition that implies the existence of a property from a proposition that makes no reference to such a thing. What is special about such inferences is that the premise does not *logically* entail the conclusion but does so in virtue of the concept of the entity that makes its appearance in the conclusion. Schiffer says that 2) is a

pleonastic transformation of 1) and that properties are, since they are inferable by pleonastic transformation, pleonastic entities.⁵ Like Thomasson, Schiffer holds that the existence of entities of these kinds follows from two things: a) the nature of the concepts they fall under; and b) the obtaining of some conditions which do not logically entail their existence. Besides properties, Schiffer identifies propositions, events, and fictional characters as examples of pleonastic entities.⁶

Minimalism of the Thomasson/Schiffer variety has its roots in Carnap (1950).7 Carnap there distinguishes what he calls internal from external questions in ontology. Internal questions are internal to a linguistic framework which includes rules for the use of terms that constitute that framework. For example, with respect to the material object framework (the world of things, as Carnap calls it), questions like "did King Arthur really exist?" or "are there unicorns?" are typically meant as internal. The framework supplies us with the appropriate (in this case, empirical) methods for answering these questions and, given these methods, the questions can be more or less easily answered. Within the framework, questions like "are there really material objects?" are entirely trivial. External questions concern which framework to adopt. It might be thought that we should accept the material object framework if and only if there really are material objects. However, the question "are there really material objects?" presupposes rules for using the term "material object," rules that are provided by the framework itself. To try and answer the question "are there really material objects?" independently of the framework (in the context of which, the answer is a trivial affirmative) is meaningless. Carnap holds, instead, that questions about which framework to adopt are pragmatic. We may adopt the material object framework if this is useful to us for some purpose. The similarity to the Thomasson/Schiffer variety of minimalism should be clear. The conditions for the application of terms or concepts identified by Thomasson and Schiffer are like the rules that come with a certain linguistic framework for Carnap. Ontology is "easy" because determining whether Ks exist is just a matter of applying procedures, empirical or logical as the case may be, that are internal to a framework, concept, or term. It is, though, presumably a fundamentally pragmatic question which concepts we should use.

⁵ Precise versions of the definitions of SFNI and pleonastic entities can be found in Schiffer (2003, 56–7).

⁶ The question of the exact relation of Schiffer's views to Thomasson's is a difficult one. (See Thomasson (forthcoming) for her own assessment of this relation.) Unlike Thomasson, Schiffer does not take the view to apply to things like tables and chairs and it may, therefore, seem as if he confines the view to abstract entities and that Thomasson extends it to concrete entities too. However, as we shall see, Schiffer takes great pains to show that the concept *wishdate* does not generate a SFNI, and wishdates, if they existed, would be concrete and not abstract. If the view were simply not intended to apply to concrete entities, the reasons he gives for excluding *wishdate* would be unnecessary. In addition, as we shall also see, my objections to Thomasson's view do not all turn on the concreteness of the entities in question. Thanks to a referee for this volume for alerting me to the problem of specifying the relation between Thomasson's and Schiffer's views.

 $^{^7\,}$ In Thomasson's case, at least, this is quite self-consciously so. See her contribution to this volume and (2015).

7.2 The Problem of Too Much Content

I begin my examination of minimalism with a discussion of the fusions of Classical Extensional Mereology (CEM).⁸ Although fusions have not been much discussed by minimalists it is clear how the theory would apply in such a case. Since we are dealing with a philosophically introduced concept we do not have to worry about whether we are getting the conceptual analysis part right. CEM includes an explicit existence condition for fusions which is to be understood, according to the minimalist, as an expression in the material mode of the application condition contained in the concept *fusion*. Hence, as long as the condition obtains, it will be true by definition that fusions exist.

What, then, is the application condition for the concept *fusion*, or the existence condition for fusions, as found in CEM? Here is how David Lewis puts it:

MS) "Whenever there are some things, there exists a fusion of those things." (1991, 74)

In this case, the existence/application condition is nugatory—the mere existence of some things. If this condition is guaranteed, by the very concept of a fusion, to express the existence condition for fusions, it is, indeed, extremely easy to determine that fusions exist. As Thomasson says (putting the point in terms of language rather than concepts):

[I]f it is simply a rule of use that (for singular terms 'a' and 'b') 'mereological sum [i.e. fusion] of a and b' applies provided 'a' applies and 'b' applies, then (assuming some other terms refer), it is a trivial matter to show that there are mereological sums. (2009b, fn 8)⁹

Unfortunately, MS cannot be taken as the first-order expression of a definition of the concept *fusion* because that concept *already has* an explicit definition as part of the theory, namely,

FUSION) "Something is a fusion of some things iff it has all of them as parts and has no part that is distinct from each of them." (Lewis 1991, 73)

This definition says nothing about the conditions under which a fusion exists, but it does tell us what a fusion *is*. So MS, at least as interpreted by Lewis or other proponents of CEM, is not *just* supposed to be telling us that there are things, call them fusions, that exist just when some other things exist. It is telling us that when some things exist, something else exists *which has them as parts*; that is, not just that something else exists, but that a *fusion* of them exists.¹⁰ "Fusion," in MS, comes with a definition already supplied. On the minimalist's reading of CEM, then, there appear to be two

¹⁰ For the sake of simplicity, I ignore here and throughout the details about a fusion's not having any parts that don't overlap the things of which it is a fusion.

⁸ My discussion assumes some familiarity with CEM. See Simons (1987) or Lewis (1991) for background.

⁹ In fairness, this remark is from an illustrative footnote and not part of a sustained discussion of fusions. Nonetheless, it is what one would expect the minimalist's view of them to be. It is incidental to Thomasson's minimalism about fusions that she puts the application condition for 'fusion of a and b' in terms of whether 'a' and 'b' apply rather than whether a and b exist.

competing definitions (or one definition and the first-order expression of another) for the concept *fusion*.

It might be thought that this is a merely presentational problem. Yes, we appear to have two definitions here, but why not simply combine the two into one definition? This, as I shall argue, cannot be done satisfactorily, and that it cannot is what I call the problem of too much content (the problem for minimalism being that it requires more content in the alleged definitions than can be there). The amalgamation of MS and FUSION would look like this:

MS-FUSION) If some things exist, then there exists something, a fusion, such that those things are all parts of it.

There is no problem in supposing that such an axiom might be true or that fusions, as understood in CEM, might exist. The problems come in trying to understand MS-FUSION from the minimalist point of view. The antecedent gives a condition for two things: the existence of something and the obtaining of a relation in which that thing stands to some distinct objects, referred to in the antecedent. But the minimalist faces a dilemma. On the one hand, it seems unproblematic to say, with the minimalist, that we can associate with any given condition the concept of an object that exists just as long as that condition is met. For example, one might associate a concept, nextion of A and B, let us say, with the condition that A be next to B. So likewise, there is no problem in supposing that there is a concept of something, the fusion of A and B, that exists just so long as A and B exist. But one cannot simply assume that the objects falling under such concepts meet some further condition; hence, it cannot be part of the concept of something for the existence of which the obtaining of some condition is conceptually sufficient, that things falling under the concept must have any further properties that do not follow logically from the existence condition. So, one cannot suppose it to be true in virtue of the concept fusion, if that concept contains the condition that the fusion of A and B exists just in case A and B exist, that a fusion of A and B has them as parts. Of course, concerning some object C, it would be a conceptual truth that it had some other objects A and B as parts, if C fell under the concept fusion of A and B as given by the definition FUSION above. But that brings us to the other horn of the dilemma. If one were to suppose, with Lewis, that it is true by definition of the concept fusion that the fusion of A and B has A and B as parts, then one cannot also suppose it to be true, merely by definition of the concept, that the existence of A and B is sufficient for the existence of their fusion. If one thinks that that condition is sufficient for the existence of a fusion, that must be taken not as a conceptual truth, but as a piece of genuine first-order metaphysics (as, I believe, Lewis so takes it).

7.3 Being and Nothingness

In this and the following two sections, I consider some responses the minimalist might make to the argument so far. I argued above that if the existence condition for fusions

as expressed in MS were taken as true by definition, then we could not assume the further condition on fusions, expressed in FUSION, to be true of them. Still, it might be replied, unlike the case to be discussed in the next section, there is nothing incoherent about the idea of something which exists just in case A and B do and which has A and B as parts. So even though we can't be sure that fusions, as defined by MS, have the things on which they depend for existence as parts, they might do, nonetheless. It might, therefore, be thought that our problem is, essentially, one about knowledge. The minimalist gets us as far as the existence of things which resemble the mereologists' fusions with regards to their conditions of existence. Whether they resemble fusions with respect to their parts remains unknown (at least at this stage of enquiry). Perhaps the minimalist harbors the hope that we can confirm somehow that her fusions have the right parts; or perhaps she consigns herself to the impossibility of ever knowing for sure that they do (and is prepared to assume they do, since it seems no harm will come of it). But either way, our difficulties here would stem from lack of knowledge on our part rather than lack of something on the part of the entities concerned.

In fact, I think the problem is not of this nature and one need only state this imagined response to feel how unconvincing it is. Granted that our knowledge of things is generally imperfect, what are the blocks to knowing in this case? Or, to come at things from the other direction, what could possibly determine whether fusions, as defined by MS, also have the things on which they depend for existence as parts? The problem of too much content shows that it cannot be by definition or the logical consequences thereof, since it is evident that the existence of A and B does not logically imply that there is anything of which they are parts at all. If anything could determine an answer to the question about parthood, it would have to be the nature of the fusions themselves. Yet it is precisely here that we come up short. The problem of too much content, on the part of definitions, has as its flip side, a problem of too little substance, on the part of genuinely minimal objects. Ontologically minimal, or pleonastic, entities truly deserve the epithet "existential." The slogan of existential ontology is that existence precedes essence. In the case of OM, it is a matter of existence's not just preceding essence but exhausting it, a much worse predicament. Minimal entities are entities for which there is no "there" there. If the definition of a concept includes conditions for the application of a concept or for the existence of the things falling under it, then nothing else can belong to the concept, and hence there is nothing in virtue of which any other properties might belong to entities falling under the concept.11 "Nothingness," to appropriate Sartre's expression, "lies coiled in [their] heart[s]...like a worm" (1958, 21).

Of course, in some sense, this 'lightness of being' is exactly what ontological minimalism is after. The whole point of the language-first approach is to free ourselves from the idea that there are these real essences in the world that may, but also may not, offer themselves to a metaphysical gaze and reveal their secrets. But even the minimalist

¹¹ Properties like being self-identical or being thought about by someone might be exceptions but would hardly seem much comfort to the minimalist.

wants to say more about the objects she posits than merely that they exist. Some way must be found to incorporate into the account some of the other things we take, either in common sense or in some special theory like CEM, to be true of some range of things.

7.4 Wishdates

A second response the minimalist might make is to say that the objection I have raised has been made already, under the rubric of the 'bad company objection,' and answered by invoking on concepts suitable for minimalist treatment a requirement of conservative extension (RCE). Since Schiffer has dealt with this aspect most extensively, we may turn our attention to him at this point. Schiffer defines the concept of a wishdate thus:

WD) "x is a wishdate $=_{df} x$ is a person whose existence supervenes on someone's wishing for a date, every such wish bringing into existence a person to date." (2003, 53)

It now seems that we can make the following SFNI:

3) S wishes for someone to date

therefore

4) There exists a wishdate.

The validity of the inference from 3) to 4) is allegedly guaranteed by the concept *wish-date* since by definition, a wishdate is something for whose existence (or for the application of the concept of which) nothing more is required than that someone wish for a date. Since it is absurd to suppose that we can establish the existence of wishdates merely by pointing to the fact that someone wishes for a date, and since we are anteced-ently of the opinion that there are no wishdates, minimalism clearly faces a problem: to say why the inference from 1) to 2), valid in virtue of the concept *wishdate*, is not. This is the bad company objection to minimalism.

Schiffer responds to the objection by imposing on the concepts that may underwrite a valid SFNI the condition (very roughly) that by their presence, no consequences expressible without them should be provable that are not already true. Ontological minimalism, in other words, only pertains to concepts the addition of which to a theory provides a conservative extension of that theory. It is clear how the concept *wishdate* violates RCE. Suppose a person goes into an otherwise empty area to wish for a date. Prior to the introduction of the concept, we think only one person is there, the wisher. By introducing the concept, it will now follow that two people are there. Since this was expressible, but false, before the introduction of the concept *wishdate*, the concept violates RCE. Thomasson follows Schiffer in her response to the bad company objection and speaks generally of the need, in the definitions of the relevant concepts, for "consistency, conservativeness, generality, and harmony (among interrelated definitions)" (2009b, 10).

It might be thought that my objection to the minimalist treatment of fusions in Section 7.2 was really just pointing out that the concept fusion runs foul of RCE. For example, for two things which, without the concept of fusions at hand, we might think are not co-parts of anything (say the number three and the moon), it follows, from the existence of those entities and the introduction of the concept fusion, that there is something (their fusion) of which those things are co-parts. If so, the minimalist might concede my objection to fusions, which turn out-perhaps surprisingly-to be more like wishdates than like properties, but claim that this shows nothing new and interesting about minimalism as such. However, I do not think the problem of too much content is a problem about failure to meet RCE. First, although I shall not go through the details, Schiffer's careful formulation of the notion of a conservative extension (2003, 54-61) would not classify the fusion case as a violation of RCE. But more importantly, my contention that a minimalist cannot take to depend on some condition both the existence of a minimal entity and a further fact about it was not that this would imply substantive truths that would be expressible, but false, without the introduction of the concept in question. It was that if the entities in question were really such that the condition by itself were sufficient for their existence, there would be nothing about *them*, in themselves, to make true (or false) those further claims involving them, even if those further claims did not contradict anything we already thought. Even if we did not think there was nothing of which the number three and the moon were parts, if their mere existence is sufficient for the existence of their fusion, there is nothing about that fusion to guarantee that it has the number three and the moon as parts. The problematic claims, according to my objection, are not ones that are expressible without the introduction of the relevant concepts; they are claims about the entities that fall under those concepts.

Further examination of the example of wishdates yields, I think, the conclusion that the problem Schiffer identifies about conservative extensions is really itself just a symptom of the problem of too much content. Consider, again, the definition that Schiffer gives of the concept *wishdate*:

WD) "x is a wishdate $=_{df}$ x is a person whose existence supervenes on someone's wishing for a date, every such wish bringing into existence a person to date."

The strange syntax is a sign that there is something peculiar about this definition. In fact, it contains three claims about wishdates, each distinct from the others. a) The existence of wishdates supervenes on someone's wishing for a date. b) Wishdates are brought into existence by the wish of someone on whom their existence supervenes. c) Wishdates are people. The oddity of the example lies in the fact that a) and b) are distinct claims about wishdates but easily conflated. a) is what makes this a potential counterexample to minimalism. It is a condition such that its satisfaction is, by definition, sufficient for the existence of an entity of the given kind. So far, so good. But of

course, this does not guarantee all sorts of other facts about wishdates, including b) and c). a) is a paradigm instance of a minimalist existence condition and it guarantees only the existence of something with too little substance, as I put it above, to make true anything else about wishdates. b), too, looks like an existence condition and hence, it seems, ought to have a place in the minimalist scheme. But in fact, it is quite different from a). It represents a 'further fact' about wishdates that does not follow from the satisfaction of the existence condition in a). For a), while ensuring that the existence of wishdates supervenes on a person's wish for a date, does not itself require that that wish cause the existence of the wishdate. The real problem with the concept wishdate is that there is too much content in the definition.¹² It is not that wishdates would be inconsistent with our conception of what causes the existence of what. We might, after all, however surprisingly, come to discover that wishing to date someone *does* bring into existence a person. But that would not make the people caused to exist in that way pleonastic entities (i.e. wishdates, as defined by a)), any more than ordinary people should be considered pleonastic entities because they are caused to exist by something more than merely wishing for a date.

7.5 Simultaneous Definition

FUSION defines fusions in terms of parthood and it is the requirement that a fusion must have the objects on which its existence depends as parts that creates a problem for the minimalist's understanding of MS-FUSION. The concept of parthood is a primitive in Lewis's presentation of CEM. By calling it a primitive we mean that it is undefined in the theory and yet a source of content for the theory, and constraints stemming from the content on the theorems and definitions of the theory, in which it appears. It is precisely this content and these constraints which we cannot assume to obtain merely through the fulfillment of the existence condition in MS-FUSION. One thing the minimalist might do to respond to the question, "how do we ensure that fusions have the things on which their existence depends as parts?", is to treat MS-FUSION as simultaneously defining the concepts of both fusion and parthood.

In assessing this move, it may help to distinguish the case in which MS-FUSION is treated as wholly defining *part*, along with *fusion* (subject to the provision of further co-application conditions, the effect of which I am still refraining from discussing) from the case in which it is allowed that *part* is somehow allied to a concept of parthood that is independent of MS-FUSION, but which MS-FUSION is then thought to modify or refine in some way. In the first case, the minimalist treatment of MS-FUSION would be less misleadingly expressed if we avoided the word "part," since we may have

 $^{^{12}}$ b) also fails to be acceptable in a definition of a pleonastic entity for another reason that I discuss more fully in Section 7.6. Briefly, it violates a restriction that existence conditions should not presuppose the existence of the entities in question. To be fulfilled, the requirement for something's being a wishdate, that a person's wish for someone to date be the cause of *its* existence, clearly requires its existence. Not so with a), which has the right form for a minimalist existence condition.

a hard time not importing its ordinary meaning. While we're at it, we can replace the word "fusion" too, for good measure. That leaves MS-FUSION looking like this:

There is a kind K and a relation R such that, by the definitions of K and R, if A and B exist, then there exists something C such that C is a K, and R(A,C) and R(B,C).

However, with no independent understanding of what K and R are, this tells us nothing. We may, if we like, look for models for which this claim would hold. For example, the domain of sets would provide a model: K is interpreted as *set* and R as the subset relation. David Lewis would take reality, unrestrictedly, to offer a model on which K is taken as *fusion* and R as parthood.¹³ But that's because Lewis already accepts CEM as a substantive theory. The minimalist, who is using MS-FUSION as a simultaneous *definition* of the concepts *fusion* and *part*, cannot take reality as a whole for a model without simply begging the question.

If we attempt to avoid this by supposing, instead, that MS-FUSION refines an existing concept of part that contributes at least some of its content to the refinement, we are back with the original problem, however. Whatever the content is that attaches to *part* that is independent of MS-FUSION itself, on what basis can we assume that if A and B exist, there exists something further such that A and B have that relation to it? Again, the maximalist about CEM asserts this to be the case; she sees herself as making a claim the falsity of which is a conceptual possibility. The minimalist, however, is treating MS-FUSION as a partial definition.

7.6 A Problem about Application

So far, I have been discussing only the application conditions that are, according to minimalism, contained within concepts. However, the view also asserts that concepts come with co-application conditions and it may be thought that my objection will ultimately be answered by drawing on the resources supplied by these. For the minimalist will say that we only have an adequate definition of a concept when we take, together, both the application and the co-application conditions for it. It is time, therefore, to begin to see what, if anything, they add to the view. To do so, however, we must step back and look a little further, first, at the very notion of application.

If there are entities of some kind K, then the concept K applies to each of them. The concept *tiger* applies to each tiger. Let us call this kind of application, the application of a substance sortal to the things that fall under it, "sortal application." The conditions of sortal application, however, cannot be the kind of application conditions of interest to ontological minimalism. Thomasson rightly says, in discussing application condi-

¹³ Indeed, reality, unrestrictedly, provides a model on which K is taken as *set* and R is taken as the membership relation. At least until the provision of co-application conditions, minimalism about fusions is indistinguishable from minimalism about sets so long as we take MS-FUSION as defining *part* along with *fusion*.

tions, that "the application conditions for a term *K* must not be understood as appealing to the existence of Ks" (2009b, 4). That restriction would be violated by conditions of sortal application. The conditions of the application *to a tiger* of the concept *tiger* must presuppose its existence, hence presuppose the existence of tigers.

It is important to realize that this restriction on application conditions, and the reasons for it, are quite different from restrictions on definitions to avoid circularity. As Thomasson puts it, without such a restriction, an "understanding of application conditions could provide no help in evaluating the truth of existence claims via claims about reference, and those about reference in terms of the fulfillment of application conditions" (2009b, 4). The point of minimalism is to help us understand something about the conditions for the existence of entities of some kind through the notion of the application of the concept of that kind of thing. But if the conditions for the application for whose existence we are trying to understand, the detour via reference and application of application conditions will have been pointless. In other words, the restriction in the formulation of application conditions is a consequence of the priority that minimalism accords to concepts or language even while the application of concepts or terms; I referred to this priority in Section 7.1.

What notion of application, then, is at work in minimalism? Consider fusions again. Here, we are given a condition, that A and B exist, that is supposed to be sufficient for the truth of the claim that a fusion of A and B exists, or for the application of the concept *fusion of A and B*. Thus, the condition is not a condition for the application of the concept of a fusion *to* anything. The application the conditions of which are given for the concept *fusion* is its application in a proposition of the form "a fusion (of A and B) exists." It is a case of what we may call "bare application." Of course, given a fusion, we can apply the concept *fusion* to it. That would be a case of sortal application that the minimalist appeals to. If the existence of A and B were supposed to be conceptually sufficient for the application of the concept *to* a fusion to exist. That would be a case of sortal application that the minimalist appeals to. If the existence of A and B were supposed to be conceptually sufficient for the application of the concept *to* a fusion of A and B, the minimalist would violate the constraint against appealing to the existence of things falling under the concept for which application conditions were being given. Thus, the minimalist's application conditions for the concept *fusion*, in the first instance, cannot be conditions of sortal application but are rather conditions of bare application.

This observation allows us finally to see what is really wrong with the minimalist construal of MS-FUSION and hence fully appreciate the problem of too much content. I insisted that we cannot define concepts like *fusion* in such a way as to make an appropriate condition sufficient both for the application of the concept in question and for its implying some further condition on the objects falling under it. We cannot, that is, simply combine the unobjectionable minimalist construal of MS with the existing definition of *fusion* in FUSION. Now it might have been wondered why the further substantive condition is not itself a kind of application condition. And so on what basis

could I have made this separation between the two kinds of condition? After all, the condition that a fusion of A and B must have A and B as parts of it could easily be expressed in terms of application. We could say that the concept fusion of A and B applies to something just in case it has A and B as parts. We can now see why this would not be the kind of application condition of interest to minimalism. It would be a sortal application—there would have to be something that had A and B as parts (i.e. a fusion of A and B) for us to apply to it the concept fusion of A and B. By contrast, the genuine application condition for that concept, that A and B exist, does not presuppose in itself the existence of the fusion. I suggest, in fact, that the problem of too much content is the problem of trying to combine a genuine bare application condition with a condition of sortal application, something that must be expressed in terms that presuppose the existence of something to which the concept in question is applied. A genuine existence condition tells us what it is for something of a certain kind to exist-and hence cannot presuppose the existence of anything of that kind. Further substantive conditions are expressed in terms of what something that exists must be like, if it is to be of a certain kind. This is evident if we look once again at MS-FUSION:

MS-FUSION) If some things exist, then there exists something, a fusion, such that those things are all parts of it.

There is a condition for the bare application of the concept *fusion*, namely, that some things exist. Their existence is sufficient for us to say "a fusion (of them) exists." But then we also give a condition for sortally applying the concept *fusion* to something: x is a fusion of some things only if those things are parts of *it*.¹⁴

Thomasson makes much of the application of minimalism to artifacts.¹⁵ Against nihilists about artifacts, like van Inwagen, she argues that there really are such things as chairs; but in opposition to maximalists, this result is allegedly secured by the fact that the application conditions for the concept *chair*, contained within the concept, are merely that some wood be arranged chair-wise. Thus, given the existence of wood arranged chair-wise, it is not a substantive piece of metaphysics to argue that there are chairs as well. It is a conceptual truth. What notion of application is at work here? If we are dealing with bare application, then the application conditions for the concept *chair* are such that it can be barely applied when some wood is arranged chair-wise. The problem we face, as we did in the case of fusions, is that much more is supposed to be true of chairs, even true of them by definition, than follows merely from the fact that some wood is arranged in a certain way, not only does a chair exist, but it is supposed to exist in a very particular relation to that wood; it is supposed to exist just where the wood is, to have the same weight as it, etc. These are the features that are usually implied by saying that

¹⁴ Thanks to Elijah Chudnoff for helping me see this. And here is where the footnote above about the further reason for disqualifying b) from the definition of *wishdate* fits in.

¹⁵ This is one of the main differences between Thomasson and Schiffer, the latter of whom does not extend his views to (concrete) artifacts. See Section 7.8.

the wood constitutes the chair. The features of constitution are not, however, implied merely by the satisfaction of the existence condition. For this is a condition for the application of the concept not *to* the chair-wise arranged wood, but barely. Thus, we face again the problem of too much content. If the existence condition for chairs—the chair-wise arrangement of some wood—is taken to be true for them by definition, then other features (summed up under the rubric of constitution) cannot be; nor will chairs, if their definition is exhausted by their existence condition, have the substance to make true those features pertaining to constitution. Alternatively, if the features of constitution are, in some way, built into the definition of the concept, then the existence condition cannot be true by definition. It seems as if the minimalist cannot escape the need for serious first-order metaphysics here to capture what we ordinarily want to say about chairs and their relations to certain pieces of wood.

The minimalist might hope to isolate a further sense of application that is at work in the case of concepts like *chair* that, unlike bare application, involves application of the concept to something but is distinct from sortal application in not requiring the existence of the thing to which the concept sortally applies. Let us call a putative kind of application of this sort "constitutive application." On this view, when some wood is arranged chair-wise, that is sufficient for the application *to it*, the wood, of the concept *chair*. But we would not be saying that the wood itself is the object that falls under the concept *chair*. Thus the chair the existence of which is implied by the application of the concept *chair* would not be presupposed in its application. We can express the relation between the wood and the chair by saying that the wood constitutes the chair, a relation which allows that the wood is not identical to the chair, that there are two distinct objects, but so related that many properties of the wood, its weight and location, for example, are inherited by the chair. That there is such a notion of application is maintained by philosophers like David Wiggins, who identifies a use of "is" that he calls "the "is' of constitution" (1980, 30).

This is an attractive suggestion. However, it requires us to distinguish a further type of application, what I called constitutive application, that comes with certain metaphysical characteristics built in, as it were. Sortal application is just the subsumption of something under its kind or type. Bare application is the assertion of the existence of something of a given kind. But constitutive application involves a distinctive relationship between two objects, a chair and some wood, that is, while familiar, far from metaphysically neutral. An appeal to this kind of application may help to explain why an entity of a given kind, a chair, should have certain properties such as its location and weight; but it does so not as an alternative to substantive first-order metaphysics but in virtue of just that. The very recognition of this further variety of application, in addition to bare application, is at odds with minimalism's attempt to explain away serious metaphysics through the idea of the application conditions of concepts or terms. If this is to be the simplifying move the minimalist hopes, it is essential that the account of application not depend on importing substantive metaphysics. This is indeed the case for bare application (though the cost, as we have seen, is the existential malaise that befalls objects so recognized). But it would most certainly not be true for constitutive application. Indeed, constitutive application of a concept to an object is equivalent, in some sense, to the bare application of that concept taken together with independent metaphysical postulates governing the nature of the objects falling under the concept. But in that case, though the justification for the existence of the constituted object might succeed in minimalist terms, the justification for accepting the relevant postulates would not.

7.7 The Problem of Co-Application

I come, finally, to the twice-deferred issue of co-application conditions. Can these provide any way out of the problems we have been looking at? Intuitively, where application conditions are supposed to speak to questions of existence, co-application conditions are supposed to address questions of identity, both over time and at a time. It might be hoped that entities suffering from the existential malaise I described above could be given a little backbone if we could provide for them not just conditions of existence but identity conditions as well. And it is, of course, quite standard in firstorder discussions of ontology to provide existence and identity conditions for various kinds of entities that get discussed. So an appeal to co-application conditions might seem quite natural and appropriate.

We should start our investigation by recognizing that the "application" in "coapplication conditions" must be application of a different kind from the "application" in "application conditions." The reason the two kinds of application must be different is this. In the case of application conditions, we saw that whatever they are, they are not, by the minimalist's own admission, conditions for sortal application. However, in the case of co-application conditions, it can only be sortal application that is intended. It cannot be bare application, since we are after conditions for the application of a concept to the same thing on two different occasions, whereas in bare application, the concept applies without applying to anything at all. Even if we allow a notion of constitutive application, as described at the end of Section 7.6, that cannot be intended in talk of co-application conditions either. For in constitutive application, we are dealing with the conditions under which, say, the concept chair may apply to some wood (not because the wood is itself a chair-that would be sortal application-but because it constitutes a chair). But conditions under which the concept *chair* may apply to the same wood on two occasions will not necessarily be cases in which we have a single chair at all. I may make a chair out of some wood at t1, destroy it, and make a chair out of that same wood at t2. The conditions under which chair applies to the wood at t1 and t2 are, according to minimalism, just that, at t1, the wood be arranged chair-wise and that at t2, it be arranged chair-wise. But they do not require that we take the chair at t1 to be the same chair as at t2. Whether we should, or not, of course, is a topic of much discussion, but we can clearly give conditions under which the concept in question applies (constitutively) to the same wood on different occasions without resolving that

further question. Furthermore, the concept *chair* may be applied on two different occasions to different wood, and yet there still be just one chair involved; these are cases where a single chair undergoes some change in the wood that constitutes it. So, *chair*'s being applied twice to the same wood is neither necessary nor sufficient for there being a single chair.

In fact, it is clear from what she says that Thomasson does take co-application conditions to be conditions of sortal application. For example, she talks of "conditions under which the term S may be properly re-applied to one and the same S" (2009b, 4).¹⁶ And, in the example of an imaginary term "fillow," she writes:

supposing the term 'fillow' to be successfully applied on two occasions, the conditions under which it is true that 'fillow' is applied (in both cases) to one and the same object fix the conditions under which the first is the same fillow as the second. (2009a, 448)

Both of these quotations indicate clearly, I think, that she is conceiving of co-application conditions as conditions of the sortal application of a concept to the same things on different occasions.¹⁷

That different kinds of application are at issue in application conditions and coapplication conditions is not an objection, per se. What is a problem is the attempt to bring conditions of sortal application into the picture at all. Let us look at our example of fusions. The application conditions for *fusion of A and B* are supposed to be nothing more than the existence of A and B. Now under what conditions do two applications of the concept fusion of A and B apply to the same things? Remember, this should not be taken as a trivial question if all that is so far taken to be true of fusions is what follows from the satisfaction of the bare application condition for the concept fusion. The substantive answer to our question is that they will apply to the same thing just in case that to which each is applied has A and B as parts (and nothing as part that doesn't overlap A or B). But that a fusion of A and B has parts is, as we saw above, not something that can be taken to be true by definition. So, the co-application conditions for the concept fusion of A and B must themselves rest on the substantive metaphysical claim that a fusion of A and B has A and B as parts. Essentially, we are running up, once again, against the problem of too much content. If co-application conditions are supposed to be true for the objects falling under a concept by definition of the concept involved, then the existence conditions cannot be taken to be sufficient for the existence of something falling under the concept. If the existence conditions are really sufficient, further conditions can only be supplied by some substantive metaphysical avenue such as postulation. The point about how co-application conditions involve sortal

¹⁶ But this formulation is infelicitous. Surely the term S may be properly re-applied to *one and the same* S under any conditions whatsoever.

¹⁷ Incidentally, the language of the indented quotation is revealing. It is part of Thomasson's view that "object" is not a real sortal, yet she uses the term here. What is it a dummy for, then? If for "fillow," it becomes evident that the appeal to co-application conditions here is really just a roundabout way of asking the first-order question about the identity conditions of fillows. But if for something other than "fillow," then what?

application, which was rightly taken to be unacceptable in the case of (bare) application conditions, is a reflection of the already noticed problem that in formulations like MS-FUSION or WD, there is an illicit importation of reference to an "it" the existence of which is not secured independently of the existence-condition part of MS-FUSION or WD itself.

7.8 Abstractness

I come, finally, to an issue that some may think to be the real crux of what I am getting at here. One of the differences between Schiffer and Thomasson concerns the range of cases they take their views to apply to. Schiffer's cases are all cases of abstract objects: properties, propositions, and fictional characters are his primary examples. Thomasson concentrates on a wider range of cases and gives prominent play to concrete artifacts like chairs and tables. It may, therefore, be thought that the problems I am suggesting are really problems that minimalism faces when it attempts to go beyond abstracta and into the realm of concreta like chairs. There is, I think, something to this; but it is does not quite capture the real moral of the story. The basic form of the problem I have posed is that minimalism runs into problems when more is supposed to be true of the minimal entities than follows from the satisfaction of the existence conditions alone. In other words, ontologically minimal entities, if there are such, will indeed be minimal, radically so. For many abstract objects, this degree of minimality may be harmless. I say "may" rather than "is" because a sustained look at minimalism applied to properties, propositions or fictional characters is not guaranteed to find that nothing is supposed to be true of these entities in addition to what follows from the minimalist's existence conditions. For example, take fusions. CEM takes the notion of parthood generally so that it is supposed to apply across the abstract/concrete divide. Given two abstract objects, CEM asserts the existence of their fusion, which will itself be an abstract object. But the abstract object which is their fusion will still be something that, according to CEM, has the two objects of which it is the fusion as parts. So all the issues I raised about fusions and parthood will apply even when the fusions at issue are abstract. Abstractness as such is no guarantee against the problem of too much content. Some abstract objects, like fusions of other abstract objects, must have a "there" there, as it were; they must have a nature in virtue of which it will be true that the things of which they are fusions are parts of them.

Regarding other abstract objects, such as works of music, literature, or fictional characters, I think a lot of what motivates minimalist views can be preserved even on views in which there is a "there" there, in which such objects do have substance to make true various claims about them that do not follow merely from satisfaction of what the minimalist takes as existence conditions. For example, suppose we agree that fictional characters are abstract entities. Thomasson (1999) argues, correctly in my opinion, against Platonist views, among which one variety (not explicitly discussed by Thomasson) takes them to be sets of properties. But those arguments do not preclude a

view on which sets of properties are taken as the matter of fictional characters, that out of which writers make them. I do not have space to explore or defend this view here.¹⁸ I mention it merely to round out these remarks about abstracta and minimalism: some abstracta, such as fusions of abstract objects, seem problematic for minimalism, for reasons suggested; and some, such as fictional characters, may be amenable to treatments that go some way with the minimalist (treating them as abstract artifacts) but take such objects to have more substance to them than the minimalist allows.

What is true is that all concrete objects will raise problems of the kind I have discussed, if we take concreteness to involve having a spatiotemporal location. For an entity's spatial location, if nothing else, will have to be accounted for either by postulation in addition to bare application conditions, or by invocation of something like what I called constitutive application, which itself relies on substantive metaphysical views about different kinds of objects.

7.9 Conclusion

Ontological minimalism is supposed to be the "easy approach" to ontology (Thomasson 2009b, 2015). It takes the concepts of disputed entities to contain the conditions for their application. Since the application of a concept goes hand in hand with the existence of objects falling under the concept, this means that there is an "easy" way of determining whether such objects exist: just check whether the conditions contained in the concept for its application are, or are not, met.

Against this view, I have argued that if a concept contains the conditions for its application then that is all it can contain. The entities falling under the concept will be genuinely minimal. Where minimalism is supposed to be a theory of some type of entity of interest to others—mereological fusions, chairs, etc.—that means that the minimalist will not be offering solace to either maximalists or nihilists about such entities. Those parties agree on what they are arguing about, and disagree about whether there are such things. By contrast, the minimalist will be establishing the existence of entities that, though resembling the disputed entities in terms of application/existence conditions, can resemble them in no other ways. The minimalist's fusion of A and B, like that of the maximalist classical mereologist, exists just in case A and B exist; but unlike the maximalist's, it cannot be guaranteed, by definition, to have A and B as parts; nor is there anything about it in virtue of which it could be determined whether it has A and B as parts independently of definition.

Furthermore, the apparently anodyne notion of the application of a concept, central to minimalism, turns out to be a lot more complex than at first it seems. It cannot be, as the minimalist herself realizes, a matter of sortal application, the application of a sortal concept to something falling under the concept. For the conditions of application of

¹⁸ I develop it in (2016, 4.3.2) and I defend a treatment of musical works along these lines in (2009 and 2016, 4.3.1).

that kind must presuppose the existence of something to which the concept is applied: *it* must be thus and so if *it* is a K. But the whole point of the minimalist's use of application conditions was to get at what it is for there to exist something of a certain kind, not what it is for something that exists to be of a certain kind. With a prohibition on sortal application in place, we can see why the minimalist cannot add to the application conditions for a concept K something more than the conditions needed to assert that a K exists. For example, she cannot add to the condition that A and B exist, sufficient for the bare application of the concept *fusion of A and B*, a further condition that *it* must have A and B as parts. For that presupposes the existence of something falling under the concept for which the condition is supposed to be an application condition. Similar problems afflict the attempt to bring co-application conditions into the picture since these must be, and implicitly are taken by the minimalist to be, conditions of sortal co-application.

The minimalist is thus faced with a dilemma. On the one hand, she can continue the minimalist project, but face the consequence that the entities she thereby establishes the existence of are a) extremely minimal; and b) quite different from the entities at issue in the debates to which minimalism was supposed to be a resolution. On the other hand, she can look to ordinary metaphysics to ensure the entities she deals with are like the entities at issue in the typical debates. She may employ postulates governing the entities, postulates that are independent of the satisfaction of the application conditions for the relevant concepts; or she may, at least in some cases, resort to other, metaphysically loaded kinds of application, for example, to what I called constitutive application. But in this case, she abandons the basic tenet of minimalism and simply leads traditional metaphysical debates through an unnecessary semantic or conceptual detour.¹⁹

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Carnap's Legacy for the Contemporary Metaontological Debate

Matti Eklund

What is Carnap's legacy for the contemporary metaontological debate? Already a cursory examination of recent metaontological literature suggests that Carnap's influence has been great, when it comes to understanding what the relevant theoretical options are. Stephen Yablo (1998), David Chalmers (2009), and Huw Price (2009) all present Carnap as the hero for those dismissive of the enterprise of ontology; Ted Sider (2001), Eli Hirsch (2005), and Cian Dorr (2005) all focus on specific views dismissive of ontology which they call Carnapian; Jessica Wilson's (2011) critical notice of Chalmers, Manley and Wasserman (2009) is largely focused on Carnap's influence, which she takes to be pernicious.

I will here approach the issue of Carnap's legacy by bringing up a number of themes from Carnap and a number of themes from contemporary ontology—or rather, from contemporary metaontology—making a number of remarks on each, concerning the extent to the themes clearly from Carnap still are relevant today and the extent to which themes clearly central today really can be found in Carnap. In Sections 8.1–8.3, I discuss theses arguably found in Carnap and the extent to which they are found in the contemporary debate. In Sections 8.4–8.6, I discuss theses found in Carnap. While the picture that emerges is somewhat nuanced, the overall conclusion can perhaps be summarized as follows: Carnap's importance for contemporary ontology is overstated; and to the extent that some contemporary themes are found already in Carnap, the contemporary discussions are just as problematic as Carnap's own discussions were.

8.1 External and Internal Questions

One Carnapian idea that is often referred to in the contemporary discussion is the distinction between external and internal questions. Let me first discuss how that distinction of Carnap's should be understood, and then discuss what contemporary metaontologists say.¹

Let me start with what should be uncontroversial. Carnap's view on ontology is somehow skeptical or deflationary: the questions which philosophers concerned with ontology have been concerned with are, somehow or other, *non-questions*.² However, Carnap not only dismisses ontological questions, but also presents a positive view of some sort concerning what ontological questions are like. Central to the positive view is a distinction between *internal* and *external* questions, and the notion of *frameworks*.³ Internal questions—questions internal to frameworks—including questions raised using the same forms of words as philosophers use to raise the ontological questions they are concerned with, are perfectly straightforward and non-problematic. External questions—questions external to frameworks—are in bad standing, insofar as they are conceived of as genuinely *factual*. These questions can be taken to be all right, but only when they are taken as *pragmatic* questions.

Carnap's distinction between internal and external questions is a distinction between questions internal and external to *frameworks*; so in Carnap, the distinction is bound up with the notion of a framework. Somehow the problematic nature of external questions is related to their being external to frameworks. But what are frameworks supposed to be? Let me discuss two views on the matter that may with some justice be proposed.

First, there is the *language pluralist* interpretation. On this interpretation, the 'frameworks' are simply languages, or language-fragments, and the only framework-relativity at issue is the familiar one of sentence-meaning to language. (One and the same sentence, non-semantically individuated, can have different meanings in different languages.) On this view, it is straightforward that there are frameworks; the main question rather concerns how appeal to frameworks can pack any sort of philosophical punch. On a second, *relativist*, understanding of Carnap's notion of a framework, 'frameworks' are not mere language-fragments; instead, frameworks are the sorts of things relativists appeal to something like perspectives or outlooks. Framework-relativity is not the trivial dependence of meaning upon language. Instead, the *propositions* that the sentences express are not true or false absolutely but only relative to frameworks. The potential significance of appeal to frameworks is clear given the relativist understanding, but the ideas appealed to are obviously quite controversial.

On the language pluralist understanding of Carnap, the distinction between internal and external questions amounts to the following. Internal questions are questions raised using a particular language. The sentence "there are numbers", non-semantically individuated, is part of many different possible languages and its truth-value is relative to the language employed. We can also ask which language is the most useful to employ: this is a pragmatic external question. But it is clear why there can be no such

¹ The discussion to follow in this section owes much to my (2009) and especially my (2013).

² Carnap (1950), e.g. p. 207. ³ Carnap (1950), pp. 206ff.

thing as a factual external question: when the language pluralist insists that external questions understood as factual questions are non-questions, what she insists is simply that whenever we ask questions we do that using some language or other. One would only ask a factual external question if, absurdly, one attempted to stand outside of language. On the relativist interpretation, the picture is the following. An internal question is a question of what is true relative to some framework in this demanding sense of 'framework'. An external question is a question of what framework is the correct one. The relativist holds that this question lacks an answer if understood as a question about matters of fact. What can be meaningfully asked is which framework is more useful for a given purpose. Given the relativist interpretation of 'framework', there can genuinely be both platonist and nominalist frameworks.

To further illustrate the difference between language pluralism and relativism, consider the application of these views to the dispute between platonists and nominalists. The language pluralist may stress that sentences that are the focus of ontological controversy, such as "there are numbers", will come out true in some possible language and false in another, and that the decision to affirm this sentence can be bound up with the decision to use this possible language. In some sense there are platonist and nominalist languages. But the 'in some sense' is important, for it is not as if platonism—the proposition that there are abstract entities—comes out true in some languages and untrue in others. The truth-value of a proposition, as opposed to a (non-semantically individuated) sentence, does not vary from language to language. Of course talk of languages as platonist and nominalist must then be treated with a large pinch of salt, and it is not immediately clear why there being platonist and nominalist languages in this obviously attenuated sense should be thought relevant to anything. By contrast, the relativist can speak of genuinely platonist and nominalist frameworks. A platonist framework is one relative to which the propositions that express platonism are true and a nominalist framework is one relative to which the propositions that express nominalism are true.

As already stressed, the central claims of language pluralism are rather trivial. How can they even be relevant to skepticism about ontology? Obviously language pluralism needs to be supplemented to be so relevant—but how exactly? Here is one suggestion. Carnap's criticism of ontology can perhaps be understood as follows: While 'there are'-questions can be sensibly raised, and answered, within various languages, ontologists approach their questions in such a way that they must be understood as raising external questions and treating them as factual, even while factual external questions fail to make sense. Here is an illustration, using the same example as earlier. Suppose one of us speaks a language where "there are numbers" is true and the other speaks a language where "there are numbers" comes out false, and that we come to find out that it is so. Then I go on to say "OK, 'there are numbers' comes out true in my language and false in yours. But, *language-independently*, are there numbers?". This would be odd. What could this supposed *further* question amount to? Of course, if F-discourse is about something language-independent, and "there are Fs" comes out true in my

language, then so does "language-independently, there are Fs". Imagining that there is a *further* question there, not trivially answered by what has already been established, would be confused. Carnap's charge could be that ontologists are trying to ask this wrongheaded question. The only 'further' question here is a pragmatic one: which language is it, for certain practical purposes, best to use?⁴ That is a pragmatic external question. For future reference, let us label questions like the supposed further nonpragmatic question confused questions. For the envisaged criticism of ontology to be effective it would of course have to be shown that the questions ontologists ask really are confused questions in the sense characterized. It is not clear how plausible this is, or how one might go about arguing the point. Just to make clear the relation between different points here: On the language pluralist interpretation, Carnap's 'frameworks' are language-fragments. Moreover, the framework-relativity (that is, ordinary language-relativity) of ontological sentences is, somehow, central to a critique of the ontological enterprise. I have further presented one critique of ontology-the critique that ontological questions are confused questions-for which the framework-relativity of ontological sentences is thus central. But I don't take language pluralism to be committed to this particular way of criticizing the enterprise of ontology.

I think that if indeed some sort of appeal to framework-relativity is central to Carnap's view on ontology (as I will get to shortly, there are complications), we obviously face the question of what the frameworks are, and while there are other questions to be asked, all interpretations will make Carnap a language pluralist or a relativist. Either way something quite radical, and quite distinctive to Carnap, is going on. I also think that of the two interpretations discussed, the language pluralism interpretation is much more reasonable than the relativist one.⁵

How does Carnap's actual external/internal distinction compare with the allusions to this distinction in the contemporary ontological debate? In his (2005), Thomas Hofweber prominently refers to this distinction in the course of his distinction between two types of quantification and two types of uses of singular terms, and his own view is explicitly modeled on Carnap's. The idea is that the internal questions are those used raised using 'internal'—roughly, substitutional—quantification, and names used 'internally' rather than used to attempt to refer to external objects. External questions are raised using 'external'—roughly, objectual—quantification, and named used to attempt to refer to external objects. Yablo's seminal (1998), arguing for a certain kind of fictionalism, understands 'internal' questions as questions asked about what's true in the pretense and

⁴ In the text I speak of questions over which *sentences* are true. One may then want to object that when we are concerned with the existence of numbers, we are concerned with the proposition that there are numbers. However, focusing on propositions changes nothing essential. Corresponding to the different languages there are the different propositions expressed by the different sentences. Saying "OK, we know that the proposition expressed by 'there are numbers' of one language is true and the proposition expressed by 'there are numbers' of the other language is false—but is it really the case that there are numbers?" does not sound very good either.

⁵ For further discussion of which interpretation is more reasonable, and for some discussion of how Carnap has been represented in the literature, see my (2013).

'external' questions as questions about what is literally true. When presenting the metaontological map as he sees it, David Chalmers (2009) accords pride of place to Carnap, saying that on Carnap's view there is no fact of the matter as to what is true outside of a framework and takes this as his main model of ontological anti-realism. More generally, Chalmers draws the following distinction and does so with reference to Carnap:

An *ordinary* existence assertion, to a first approximation, is an existence assertion of the sort typically made in ordinary first-order discussion of the relevant subject matter. For example, a typical mathematician's assertion of 'There are four prime numbers less than ten' is an ordinary existence assertion, as is a typical drinker's assertion of 'There are three glasses on the table'.

An *ontological* existence assertion, to a first approximation, is an existence assertion of the sort typically made in broadly philosophical discussion where ontological considerations are paramount. For example, a typical philosophers' assertion of 'Abstract objects exist' is an ontological existence assertion, as is a typical philosophers' assertion of 'For every set of objects, there exists an object that is their mereological sum.'⁶

And he notes that for many theorists writing about ontology, a distinction like this is crucial.

Chalmers refers to Yablo (2000), Horgan (2001), Dorr (2005), and Hofweber (2005). One might add a number of others, including for example Sider (2009) and Cameron (2010).

The distinction that Carnap himself draws between external and internal questions is not very clearly related to the distinctions just mentioned. The *general* idea that many authors skeptical of the enterprise of ontology have found appealing is that there are two importantly different ways of taking questions of the form "Are there Fs?", "Do Fs exist?", etc. On one understanding, they are clearly tractable but not of relevance to what ontologists are concerned with. On another understanding they are properly ontological, but their tractability is something that can be questioned. We find versions of this in, e.g., Hofweber and Yablo. Call this the *General Distinction*. Theorists not dismissive of ontology often draw a similar distinction: on one understanding the questions are tractable—indeed easily resolvable—but of no concern to ontology; on another, they are harder but still in principle tractable, and the proper domain of ontology. Sider and Cameron present versions of this.

If Carnap's contribution were just to call attention to the General Distinction, his contribution would hardly be original. Surely others before him had in other terms called attention to similar distinctions, for example when talking about distinctions between loose talk and what is strictly speaking true or between speaking with the vulgar and thinking with the learned. And Wittgensteinian reminders about how in philosophy language goes on holiday would be as relevant for the contemporary metaontologist as Carnap's discussion.⁷ The specific appeal to Carnap would be misleading.

As we have seen, no matter how Carnap's distinction between internal and external is best understood, it involves something more specific. On either of the two interpretations mentioned Carnap has something much more specific in mind than the General Distinction, and something that contemporary ontologists are not concerned with. This is most clearly so given the relativist interpretation, for adherence to relativism goes beyond the General Distinction, and beyond what participants to the contemporary debate commit to. But I would say that this is so also on the language pluralist interpretation. One complication, however, is the following. As already stressed, one must keep in mind that if frameworks are just languages, then it is not immediately obvious just how appeal to framework-relativity can be central to a critique of ontology. Somehow, language pluralism must be supplemented. Maybe Carnap was a language pluralist and whatever he supplemented it with to reach anti-ontological conclusions is something also found in the contemporary debate. I have presented one suggestion concerning what the supplementary assumptions might be-the appeal to confused questions, above-and if that suggestion is right as interpretation of Carnap, again Carnap is concerned with something that plays no role in the contemporary debate. But that suggestion was only tentative. For all I have said so far, one can think that there are other ways of elaborating on the basic language pluralist idea, such that there after all is an important continuity between what Carnap on the language pluralist interpretation can be taken to hold and what contemporary ontologists are concerned with.

Huw Price (2009) and Amie Thomasson (2015 and this volume) are theorists who remain closer to Carnap as he may be reasonably interpreted, and they both espouse language pluralist interpretations. But I still have some concerns about what they say. On the language pluralist interpretation of Carnap, internal questions are simply questions asked using a particular language or conceptual framework, and (purportedly factual) external questions are, absurdly, questions aimed to be somehow asked language- and concept-independently. Price and Thomasson present a reading of Carnap close to this. Price (who Thomasson in turn explicitly relies upon) says,

...it is helpful to frame Carnap's point in terms of the use-mention distinction. Legitimate uses of the terms such as 'number' and 'material object' are necessarily internal, for it is conformity (more or less) to the rules of the framework in question that constitutes use. But as internal questions, as Carnap notes, these questions could not have the significance that traditional metaphysics takes them to have. Metaphysics tries to locate them somewhere else, but thereby commits a use-mention fallacy. The only legitimate external questions simply mention the terms in question.

I will discuss the points Thomasson makes on this separately, in Section 8.3. For now let me just stress that talking about this in terms of the use/mention distinction is, while not incorrect, to give a needlessly technical spin on it. If only internal questions are meaningful, then of course we cannot *use* language to ask supposed external questions, while, equally clearly, this does not mean that we cannot ask questions *about*

language, and about what language to use. The sticking point for this interpretation of Carnap concerns what justifies taking metaphysicians to purport to ask external questions in the sense now at issue. Do metaphysicians really not aim to respect the rules of language when asking their questions? I will return to this.

8.2 Analyticity

Another striking feature of Carnap's view, e.g. in (1950), is that he holds that many positive ontological claims are analytically true, and he also holds a view on analyticity on which analytic truths are somehow vacuous or metaphysically trivial.⁸ The emphasis on analyticity provides an alternative route to a certain kind of skepticism about the ontological enterprise. The reason ontological inquiry into whether—say—numbers exist is silly is that it is vacuously true that numbers exist. "Numbers exist" is true but does not impose any demand on reality. Investigating whether reality meets the demand that this sentence imposes on it is misguided, for there is no such demand.

Of course, merely saying that *some* positive ontological claims are analytically true does not vindicate wholesale skepticism about ontology. At most it vindicates that in cases where the claims at issue are analytically true or false, the enterprise is deflated. One could get to wholesale skepticism if one could argue that *all* ontological claims are analytically true or false. But even someone as liberal about analyticity as Carnap might balk at the claim that it is analytic that there are physical objects, not to mention the claim that it is analytic that there are tables and chairs. Another, more plausible, way to get to wholesale skepticism via appeal to analyticity would involve saying that the distinctly philosophical part of an ontological dispute always turns out an analytically true or false claim. Carnap might hold that even if it is not analytically true that physical objects (or tables) exist, it can be analytically true that if such-and-such sense data obtain then physical objects (or tables) exist. The antecedent is not analytic; but neither is it something for philosophers qua philosophers to weigh in on.

One thing to note about this analyticity-driven skepticism about ontology—call it *analyticism*—is that it seems entirely separable from any appeal to an external/internal distinction. One can buy into the former without appeal to the latter as an integral part of any criticism of metaphysics. So if Carnap can be said to have subscribed to analyticism, why did he also emphasize the external/internal distinction? Here is one possible answer to that question. An immediate objection to analyticism is that surely ontological questions are not that trivial, as demonstrated by the difficulties that ontologists dealing with them get into. To that objection, Carnap can be thought of as responding: the *internal* questions—the only sensible questions in the vicinity—are analytic; the difficulties that ontologists get into arise when they try to ask confused, *external* questions. When it

⁸ In a prominent series of writings, Goldfarb and Ricketts have argued that Carnap did not in fact rely on a substantive notion of analyticity. I have my doubts about Goldfarb's and Ricketts' take on Carnap—see my (2012). I don't focus much specifically on what they say about analyticity but instead present general criticisms of their outlook.
seems to us that ontological questions both make sense and are difficult, we are conflating two types of questions, one type which make sense, and one which is difficult.⁹

Conversely, it appears that one can buy into the external–internal distinction without reliance on any substantive notion of analyticity. This is obvious given the relativist understanding of the external–internal distinction. But this is so even given the language pluralist understanding. The language pluralist relies on the possibility of individuating languages, and so is committed to opposing some Quinean rhetoric to the contrary, but language pluralism by itself carries no commitment to the idea of there being analytic truths, with the special epistemic and metaphysical features such truths are claimed to have.¹⁰

Whatever the role of analyticity in Carnap, what is the role of analyticity for contemporary skepticism about ontology? Appeal to analyticity has lost some of its allure since Carnap's time. While reasonably many authors are still, after Quine, happy to speak of analytic or conceptual truths or entailments, few would assign to analyticity the central role it seems to have had for Carnap and some of his positivist contemporaries. However, one prominent exception to this trend is Amie Thomasson (e.g. 2007). Let me criticize at some length what she says about analyticity. The problems that Thomasson's discussion faces are general: they are of importance for anyone who seeks to appeal to analyticity in an attempt to debunk ontology.

Thomasson appeals to how truths about ordinary objects (e.g. tables) are analytically entailed by truths about more basic objects and their relations (e.g. simples arranged tablewise) in order to deflect skepticism about ordinary objects; and at a metaontological level she seeks to replace the dominant ontology as a substantive inquiry with a conception wherein conceptual analysis plays more of a role. Let me explain her strategy as applied to the problem of causal overdetermination. The supposed problem is that where, intuitively, we would say that a window is shattered by a baseball, it is true to say that the window is shattered by the simples arranged baseballwise, and to posit baseballs in addition to these simples is to say, implausibly, that the event of the window's shattering was causally overdetermined. Thomasson's response is to say that the existence of the baseball is analytically entailed by the existence of the simples arranged baseballwise. If this is the case, Thomasson says, the existence of the baseball does not "require anything more of the world" than the

⁹ Compare here Carnap (1950), p. 209.

Quine, of course, had by this stage already rejected the analytic/synthetic distinction in "Two Dogmas of Empiricism" (1951/2001) and elsewhere. Without the analytic/synthetic distinction, Quine can't (with Carnap) accept a division of labor between constructing and pragmatically selecting among linguistic or conceptual frameworks on the one hand, and empirically determining the truth of statements made using that framework on the other hand. Nor can we say that (given the rules of the linguistic framework we use) questions about the existence of numbers, propositions, properties and the like may be answered through trivial analytic means. (p. 130)

I think different ideas get run together here. One can in principle hold that there is a distinction between on the one hand the construction of languages and on the other hand questions about what to

¹⁰ It may be instructive to compare Thomasson (this volume), who says.

existence of simples arranged baseballwise does, and then "there is no doubling of or competition between the two claims".¹¹

Now, it has become common in discussions of analyticity, since Paul Boghossian's seminal (1996), to distinguish between on the one hand the *metaphysical* idea of analyticity—the idea of vacuous truth or truth by virtue of meaning—and on the other hand the *epistemological* idea of there being sentences we are somehow justified in accepting solely by virtue of linguistic competence. Given this distinction, it is plain that one can in principle subscribe to one without subscribing the other. Boghossian defends the idea of epistemic analyticity while rejecting that of metaphysical analyticity. Thomasson's point about the qua problem in the first instance shows that something about the competence of speakers helps determine reference: appeal merely to causal relations is not enough to determine reference.¹² The discussion of the qua problem in the first instance promises to say something about causal overdetermination is metaphysical analyticity.¹³ How does she get to that? Relevant remarks here are the following:

...analytic claims are illustrations of constitutive rules of language use. But rules are just disguised...commands, so insofar as they are used as illustrations of [these rules], analytic claims should not be understood as reports of or assertions of anything, and thus not as expressions apt for truth of falsehood. Instead, with their rule-demonstrating force, they should be understood as something like a converted command, much as demonstrations of the proper way to dance the merengue...¹⁴

The sense in which analytic claims seem to be about the world is that they are stated in the object-language....But there is another perfectly good sense in which they "say nothing" about

believe without holding that any questions can be answered "through trivial analytic means", denying that any sentences have the special epistemic status accorded to analytic sentences. As an illustration, consider the referentialist who holds that all there is to the meaning of an expression is its referent. The referentialist holds that there is a fact of the matter as to when there is mere change in belief from when there is change in meaning. There is no change in meaning so long as reference remains the same. At the same time, saying that meaning is exhausted by reference, she denies that any principles are such that semantic competence involves accepting these principles. (Timothy Williamson is a nice example of a philosopher who fits this characterization. He is a vehement critic of epistemic and metaphysical analyticity. At the same time, he thinks there are facts of the matter as to what expressions of different languages refer to.)

- ¹¹ Thomasson (2007), p. 16.
- ¹² See Devitt and Sterelny (1987) for a classic presentation of this problem.

¹³ In her later (2015) book the focus is rather on epistemic analyticity. Thomasson focuses on "easy arguments" for ontological conclusions—for example from the existence of simples arranged tablewise to the existence of tables—and is concerned with the epistemic standing of the premises of these arguments. However, so long as the arguments Thomasson focuses on provide only defeasible support for their conclusions, questions remain over whether other considerations might defeat this support. Here, for example, causal overdetermination arguments are of potential relevance. They can defeat the support for believing in complex material objects. Then the question of how to evaluate those arguments arises, and the considerations discussed in the main text, pertaining to metaphysical analyticity, are relevant.

¹⁴ Thomasson (2007), p. 69.

the world and are "entirely devoid of factual content".... The sense is that—if we do treat them as true—it is clear that their truth does not depend on any empirical fact's obtaining.¹⁵

The truth of the analytic claim, taken as a genuine description....is guaranteed given the relations in the rules of use for the terms employed...though the adoption of these rules is not a truth-maker for the claim (it only establishes the meaning of the terms involved and the truth-conditions for each part). This also makes sense of the idea that the truth of analytic claims... is independent of all empirical facts—even of there being bachelors or men, or indeed anything at all.¹⁶

There are a number of different ideas suggested by these passages. I will discuss them in turn.

There is first the talk of uses of analytic sentences to issue commands. This faces some immediate problems. Are we not asserting something true when making ordinary utterances of "all bachelors are unmarried"? Do we not assert logical truths? (Since the proposal only concerns the use of sentences, it doesn't involve denying that there are logically true sentences. But it does involve denying that in ordinary utterance of these sentences we state something true.) Frege-Geach problems arise for the proposal, even if it is not a proposal regarding the semantics of the sentences in question. Suppose someone actually puts forward an argument "P; if P then Q; so Q" where P is an analytic sentence. How is what she puts forward a good argument if when uttering P she is not stating anything but is issuing a command? What "P" and "If P then Q" semantically express may entail what "Q" semantically expresses, but that is not what is actually put forward.¹⁷ One further wonders what Thomasson would say about the other uses of the sentences in question but the ones where they. Are they then used to state truths? Necessary or contingent ones? If necessary, are the truths analytic? And what about what the sentences semantically express? Is that necessary or contingent? If necessary, is the necessity analytic? Appeal to how the sentences are often used to issue commands does not help explain any appeal to analyticity here. Thomasson's suggestion that the sentences in question are used to issue commands raises more questions than it solves. Focus then on what other ideas are found in these passages. A point made in the two last passages quoted is that the truth of the analytic sentences is independent of any empirical fact's obtaining. But emphasizing this is of no help in the present context. For this holds of all necessary truths, and a characterization of analytic truth had better distinguish between analyticity and necessity.

A different idea concerning metaphysical analyticity is found in the third passage above: some sentences are analytically true because the associated rules of use guarantee that they are true. But consider a criticism Boghossian makes of the metaphysical

¹⁵ Thomasson (2007), p. 69f. ¹⁶ Thomasson (2007), p. 70.

 $^{^{\}rm 17}$ Compare the analogous point against Kalderon's moral fictionalism I make in my (2009). I there elaborate further on the point.

notion of analyticity. Boghossian argues that for any sentence S, S is true iff, for some proposition p, S means that p and p. The meaning of S can only help with what proposition is the meaning of S, not with the second condition, that this proposition be true.¹⁸ For all Boghossian says, there can be sentences that are guaranteed by the rules of use to express true propositions: it can be that it is guaranteed that the sentence will express some true proposition or other. But this alone is not enough to legitimize the notion of truth by virtue of meaning. The real question concerns what the explanation of the truth of the proposition being expressed might be.

In her (2007a)—published in (2010)—Thomasson has returned to issues surrounding analyticity and necessity. That discussion faces similar problems. In a central passage, Thomasson says,

...consider the analytic claim: "All bachelors are men," or more formally, " $\forall x(Bx \rightarrow Mx)$." The corresponding rule of use is: "apply 'bachelor' only where 'man' applies," so the truth-conditions for "there is a bachelor" include that there is a man. This guarantees that *if* there is something that is a bachelor (i.e. to which 'bachelor' applies), then there is something that is a man (i.e. to which 'man' applies). This ensures the truth of the conditional for any substitution instance, for if the antecedent is true, the consequent is guaranteed to be true, given the relations in the rules of use for the terms employed. But actual bachelors and their features are not truth-makers for the claim, for the analytic claim is guaranteed to be true regardless of any features of the world: it is vacuously true even if there are no bachelors whatsoever...Indeed, even if there is nothing in the world at all...the conditional claim... is true. This gives us a clear way of understanding why analytic claims are guaranteed to be true in a truth-conditional sense, independently of all facts about the world.¹⁹

First, Thomasson's pronouncements seem true of all necessary truths, on any view of metaphysical necessity. All necessary truths are true *regardless of what contingent facts obtain*. Others suggest the more distinctive claim that analytic truths are vacuous. As against that claim, Boghossian's argument, reproduced above, is relevant. Second, the reasoning with which Thomasson begins only establishes that "all bachelors are men" is true since "all men are men" is, and that whatever the explanation is of why the latter sentence is true also explains why the former is true. Thomasson does not explicitly discuss "all men are men". If, somehow, it is vacuously true, maybe "all bachelors are men" is so too. But if it is made true by general logical features of the world, then "all bachelors are men" is made true by those same features.²⁰

¹⁸ Boghossian (1996), p. 364. ¹⁹ Thomasson (2007a), p. 148.

²⁰ Thomasson (2007a, p. 146) is explicit that she does not present an account of logical necessity. But my point is that since she does not do so, she does not show that "all bachelors are men" expresses something vacuously true. (I also want to add a remark on the example. Thomasson makes her point using a universal generalization, and if there are no bachelors there is a sense in which the sentence is 'vacuously' true. Thomasson seems to want to use this to support her view on analytic truths. But this should not be taken to be a compelling argument for taking analytic, or generally necessary, truths to be vacuous, for example because "all bachelors are tidy", surely a synthetic sentence, is also such that if there were nothing at all in the world, it would be true.)

8.3 Empiricism and Verificationism

Carnap's stance on ontological questions was clearly influenced by his empiricism and his verificationism. One reason why his (1950) is as unargumentative as it is, is presumably that Carnap is writing it for an audience that he expects to share these views, and the attendant skepticism toward ontology. He doesn't defend skepticism about ontology per se so much as defend the propriety of speaking in a way which seems 'ontological', even in the face of such skepticism.

Few authors today would say, "I am an empiricist and hence I am skeptical of ontology..."; still fewer would say, "I am a verificationist and hence I am skeptical of ontology...". But one can still find these themes in the works of contemporary authors skeptical of ontology. Take first Eli Hirsch. The views associated with Hirsch will be more properly discussed in the next couple of sections. But briefly and roughly, one main thesis he defends is that in apparent ontological disputes, the disputants speak past each other. Given the principle of interpretive charity, the best way for me to translate an opponent involves using a 'conciliatory' translation scheme given which the opponent does not state anything that conflicts with what I say. In his (2009), John Hawthorne asks the pointed question of why one should not say the same in the case of theorists defending empirically equivalent empirical theories. Surely one can devise conciliatory translation schemes also in such cases, but such translation schemes would generally be taken to be incorrect-and as Hawthorne stresses, Hirsch would not disagree.²¹ But how can Hirsch treat the cases differently? As Hawthorne mentions, Hirsch stresses the apriority and necessity of ontological claims, and Hawthorne says, "[Hirsch's] idea seems to be that we should, in translation, give special respect to claims that communities regard as a priori and necessary, and that this lends itself to conciliatory translation schemes in the case of endurantists and perdurantists but not in the case of those empirically equivalent theories where the relevant bits of theory are not regarded as a priori and necessary".22

Why does Hirsch think that claims regarded as a priori and necessarily true have this special status? Here is a natural hypothesis: while Hirsch does not speak of analyticity he is thinking of a priori necessary truths as *analytic*, and that is why he thinks what he does. Underlying what Hirsch says is an aversion to the idea of substantive a priori truths.

Let me elaborate. Hirsch stresses that charity in interpretation involves not taking the interpretee to reject what one finds *obvious*. This means according a special status to the truths one regards as a priori and necessary, if one takes these truths to be obvious. There are certainly different possible reasons one might have for taking them to be obvious. But one very prominent kind of view on which such truths have this kind of status is one on which they have such a status because of being analytic. This hypothesis about Hirsch receives support from other aspects of his debate with Hawthorne. Hawthorne argues, against Hirsch, that contemporary metaphysicians do not regard their theses as a priori but defend them "on the grounds of broad theoretical virtues like simplicity, reasonable conformity with common sense, and so on"; they thus, Hawthorne says, regard their theses as "quasi-empirical" ones, "whose tenuous connection to experience is not different in kind to that of various bits of high-level physical theory".²³ Hirsch's (2009) reply is basically that whatever rhetoric metaphysicians may use, their actual arguments are paradigmatically a priori arguments. He comments, "… what Hawthorne must mean is that revisionary ontologists often adopt the speculative tone of high-level theorists rather than the tone of philosophers engaged in straightforward conceptual or linguistic analysis. That may well be, but their main arguments, whatever their speculative or theoretical tone, are a priori rather than empirical".²⁴ What is striking is that Hirsch *contrasts* being speculative or theoretical with being a priori.²⁵

Earlier I discussed Thomasson's reliance on analyticity. There are also other ways in which Thomasson reasons like a rather traditional empiricist. Central to the metasemantic outlook that is at the heart of her deflationary metaontology is the idea that sortals come with "frame-level application conditions", and that to see whether there are tables all one needs to do is to consider whether these frame-level application conditions are satisfied. The idea is that this is straightforward, so that doubts about whether there really are tables can be set aside. In connection with this she emphasizes that it is an *empirical* and not a *philosophical* issue whether the application conditions are fulfilled.²⁶ While Thomasson does not explicitly invoke traditional empiricism, it helps explain how she reasons if we take traditional empiricism to be in the background: there is the 'analytic' question of what the application conditions are fulfilled. Anyone who is more friendly toward a substantive a priori or who finds the a priori/empirical distinction less clear-cut will naturally be less friendly toward this assumption.

Insofar as skepticism about ontology is driven by traditional empiricist concerns about ontology, the skepticism generalizes to other areas of philosophy. A traditional empiricist can agree that a priori inquiry is all right so long as it is supposed to issue only in analytic truths but be skeptical about those areas of philosophy that seem to be a priori even while the conclusions on the face of it seem like they cannot be analytic.

²³ Hawthorne (2009), p. 217.

 $^{^{24}}$ Hirsch (2009), p. 233. In his contribution to the present volume, Hirsch presents other replies to Hawthorne's points. My aim here is not to adjudicate the Hirsch–Hawthorne dispute but to highlight an underlying assumption about the a priori.

²⁵ Hawthorne too contrasts the two, and one can also ask on what basis Hawthorne does this. (Does the fact that mathematics is speculative and that appeal to theoretical virtues play a role in mathematics contradict the claim that mathematics is an a priori science?) Biggs and Wilson (this volume) argue, I think clearly correctly, that abductive reasoning can be a priori.

²⁶ See Thomasson (2007), e.g. p. 195.

For any such area, she would have to deny the appearance that the inquiry is a priori, or reject the whole inquiry as confused, or say that the conclusions are analytic, contrary to appearances. This all applies to, say, ethics as much as it applies to ontology.

Earlier I mentioned that Thomasson has the same take as Price on Carnap's external-internal distinction. Like Price she elucidates it by talk of use/mention, and she then elaborates as follows:

What then of external existence questions—why must we think of them as pseudo-questions, if they are construed as factual/theoretical questions? The answer now becomes equally simple. In raising an existence question, we must use a term ('number', 'property', 'proposition',...) to ask "are there numbers/properties/propositions?" But if we are using those terms according to the rules of use by which they come to be introduced to the language, then those rules enable us to resolve the questions straightforwardly (through analytic or empirical means), as above: the question is an internal question. So, if the external question is *not* supposed to be so straightforwardly answerable (so it is *not* an internal question), then it must be aiming to use the terms in question *without* their being governed by the standard rules of use. But if they attempt to use the terms while severing them from these rules of use, they make the terms meaningless, and the questions pseudo-questions. (this volume, 127)

Thomasson supplies what I earlier said would be needed to supplement what Price suggests regarding Carnap's external/internal distinction: a reason for thinking meta-physicians do not attempt to use expressions in accordance with any rules of language. But the reason she adduces is that if they were to use the expressions they use in accordance with linguistic rules, then the questions they ask would be analytic or empirical and hence "straightforwardly answerable". Setting aside whether all analytic or empirical questions really are straightforwardly answerable, the reasoning makes plain that there is a supposition to the effect that all questions are either analytic or empirical. Other possibilities are that some questions are substantive a priori, or that as Quine argued, the distinctions here should be discarded.

In Sections 8.1 through 8.3 I have discussed some themes found in Carnap and discussed how they relate to what is going on in contemporary ontology. In the following sections I will discuss some themes found in contemporary ontology and discuss how they relate—or not—to Carnap.

8.4 Verbal Disputes

Hirsch, probably the main contemporary skeptic of ontology, is often called "neo-Carnapian", and Hirsch himself has occasionally referred to Carnap as an ally.²⁷ (In his contribution to the present volume, Hirsch adds nuance by talking about "three degrees of Carnapian tolerance".) There are two theses centrally discussed in

²⁷ For relevant passages in Hirsch, see the early pages of his (2005) and his (2008). For relevant references in other writers, see, e.g., Hawley (2007), p. 237; Barnes (2009); Båve (2011), p. 104; and Beebee, Effingham, and Goff (2011), p. 125 (entry on Metametaphysics).

the contemporary literature that both are associated with Hirsch.²⁸ One is that ontological disputes are merely verbal; one is that our concept of existence is in no way metaphysically privileged but is merely one among a number of different possible concepts of existence, none of which is privileged. In this section I will focus on the former claim, which, following Karen Bennett (2009), I will call *semanticism*.

There is a significant unclarity in the claim that "ontological disputes are merely verbal", one which remains even if we take it to be clear what it means for two particular speakers to engage in a verbal dispute. Once we resolve this unclarity it should no longer seem attractive to criticize the enterprise of ontology in the way envisaged. Focus on a dispute that a semanticist might characterize as "merely verbal"; say, the dispute between mereological nihilists, denying the existence of complex objects, on the one hand and friends of ordinary objects ("commonsensists", let us call them) on the other. What might a semanticist mean in so characterizing it? Here are three different claims that could be made: (a) Looking at what *actual* nihilists and commonsensists *actually say*, it turns out that these actual theorists are merely speaking past each other, and have a verbal dispute. (b) For quite general reasons, nihilists and commonsensists, actual and hypothetical, will *tend to* speak past each other. (c) Nihilists and commonsensists for principled reasons *always* speak past each other.²⁹

If the semanticist's claim were (a), then although her claim would be significant she would show certain debates as actually prosecuted to be misguided—it wouldn't be of *principled* significance: ontologists could in principle avoid these problems even if many contemporary ontologists fall afoul of them. Even if, say, Peter van Inwagen and David Lewis actually speak past each other, for instance because one of them fails to use "there are tables" with the meaning it actually has in English, there certainly can for all that be more careful counterparts of them, both using 'there are tables' with its actual meaning, and having a dispute about whether the sentence thus understood is true. It is certainly of interest if main figures in ontological debates speak past each other, but as no reason has been given for thinking that there cannot be non-verbal ontological debates, no argument has been given to the effect that ontological disputes as such are not genuine.³⁰

Similar remarks apply to (b). To illustrate this, let me first take an example from elsewhere, the debate over which logic is the right logic. If someone—call him

³⁰ Hirsch's view is not actually that no ontological disputes are genuine. The relevant claim in the context of discussion of Hirsch is rather that certain ontological questions are such that there can be no genuine disputes over *them*.

²⁸ Note the cautious formulation. Hirsch's own views are rather subtle. I discuss how best to understand Hirsch in my (2011). For the purposes of comparing Carnap and the theses discussed in contemporary metaontology, it is more reasonable to focus on the general theses.

²⁹ If the semanticist is right, then it is of course wrong to speak of 'nihilists' and 'commonsensists' this way. What we have are those who say "there are no ordinary objects" and those who say "there are ordinary objects", but the claim that the former hold that there are no ordinary objects and the latter hold that there are ordinary objects is precisely what is problematized. That said, in the main text I will for simplicity speak of 'nihilists' and 'commonsensists'.

Graham³¹—keeps assertively uttering sentences that when homophonically interpreted express something which we take to be obviously logically false (say, sentences of the form "S and not S"), then all else equal, there is (by 'charity') good reason to take him to mean something different by these sentences than we do. And this generalizes beyond logic. As for instance Quine has stressed, generally, if our interpretation of someone takes her to be making assertions that are obviously false, then that is an important piece of evidence against the interpretation. This can in principle be used as an argument for why ontological disputes tend to be verbal. If one can also argue that the propositions expressed by the sentences fought over in ontological disputes are obviously true or false, one can argue that someone with a different view on one of these sentences should, all else equal, be taken to mean something different by it than what we do.³²

I'm only presenting this in broad outline. Both the principles of interpretation and the claims about the obviousness of ontological sentences can certainly be challenged. But never mind. Suppose, for argument's sake, that the argument outlined works. Still, all it immediately creates is a *defeasible* presumption that a given ontological dispute is merely verbal. For all that the argument shows, someone who assent (dissents) to sentences (pertaining to logic or ontology or what have you) that we take to express something obviously true (false) might still mean the same as we do by these sentences. Perhaps, if Graham not only says things of the form "S and not S", but goes on to say, e.g., "I know it sounds odd. It is counterintuitive to me too; or at least it was so at first. But we're simply forced to accept some of these claims. For consider the following paradox [...] In light of this we have to give up some central and cherished belief, and I think, more specifically, that we must give up the belief that there are no true sentences of this form". That might help tip the scales in favor of a homophonic interpretation. And so long as it is possible for the scales to be thus tipped, it is possible to have a non-verbal dispute over which is the right logic. Analogous remarks apply in the case of ontological disputes. And all of that is consistent with (b), since (b) only speaks of what "tends to" happen. Like option (a), (b) is then too weak to be of principled significance.

This brings us to (c), roughly, the view that it is *impossible* to have a dispute over the propositions expressed by ontological sentences: that *whenever*, both in actual and in hypothetical scenarios, it appears that two people have a disagreement over one of these propositions, that appearance is deceiving. That claim would be significant. But it is an implausibly strong claim, as should be agreed on all hands. Even in the case of logic, and someone apparently denying basic logical truths, it is implausible that appearances always are deceiving.

³¹ Compare Priest (2006).

³² In his (1948), Quine stressed the obviousness of basic ontological claims. This together with Quine's claim about correct interpretation yields semanticism (with the caveat that the claim about ontological sentences is from earlier work than the claims about interpretation). This is interesting in light of Quine's status as someone who rehabilitated ontology as a serious enterprise. (I wouldn't put too much theoretical weight on the point, but there is an element of irony to it.)

So, to sum up: neither (a) nor (b) is strong enough to show that ontology per se, as opposed to particular token disputes between particular theorists, is to be dismissed; and (c) is implausibly strong. (a)–(c) seem to exhaust the relevant alternatives. So there is no interesting yet prima facie plausible claim to the effect that ontological disputes are nonsubstantive for the reason that they are merely verbal. (Again to stress, claims like (a) and (b) are themselves radical claims, and claims that promise to be of some importance. It is their significance as far as the principled criticism of the enterprise of ontology is concerned that I am skeptical of.)

I have discussed semanticism without attention to what Hirsch actually says. The excuse for that is that my criticism is principled, and not tied to any particular way of elaborating upon the basic semanticist idea.³³ But it may anyway be useful to consider what Hirsch says. While Hirsch tends not to be explicit about whether he has in mind something like (a) or like (b) or like (c), or if there is some other alternative that he has in mind, it is easy as a reader to get the sense that of the alternatives mentioned, (c) is closest to what Hirsch is after given that he aims for a principled criticism. But when Hirsch makes remarks directly related to the issue I'm here bringing up, what he says is,

Lewis points out that a stage seems eventually to be reached in ontology when "all is said and done", when "all the tricky arguments and distinctions have been discovered", so that each position has achieved a state of "equilibrium". *I am thinking primarily of this stage when I say that the dispute between endurantists and perdurantists is verbal.* Prior to this stage, if an endurantist, say, is disposed to change her mind in response to some perdurantist arguments, then charity to use may favor interpreting her language as P-English, so that the change of mind is deemed reasonable and her earlier judgment deemed mistaken. But after the "all is said and done" stage has been reached, there is nothing to be said but that each side speaks the truth in their own language. In saying this I am rejecting Lewis's claim that when we have reached the "all is said and done" stage we are left with a "matter of opinion" in which one side "is making a mistake of fact".³⁴

Given that Hirsch is really only concerned with debates that would remain at the "when all is said and done" stage, then one may be forgiven for suspecting that even Hirsch is right about such debates, it just isn't clear how what he's talking about applies to metaphysical debates as actually prosecuted.³⁵ More importantly, to relate back to the remarks above on (a) and (b), even if all those who actually seem to disagree with me on ontological matters are such that our dispute would remain at the all-is-said-and-done stage, and hence by Hirsch's reasoning our disagreement is merely verbal, it could still be that some possible opponent is such that we would agree at the all-is-said-and-done stage, and hence our disagreement is genuine. But can Hirsch then be thought to have a principled point against the enterprise of ontology?

 $^{^{\}rm 33}$ Besides, as already noted, Hirsch's own position is rather complex. See my (2011) for further discussion.

³⁴ Hirsch (2009), p. 241.

³⁵ Hirsch seeks to allay doubts on that score on pp. 6–7 of his contribution to this volume.

I have discussed three possible precisifications of "ontological disputes are merely verbal". On the two first, the claim may be plausible but doesn't have the generality required to undergird a dismissive attitude toward ontology. On the third, the claim just isn't plausible. Accordingly, one cannot justify a dismissive attitude toward ontology by appeal to the idea that ontological disputes are verbal. Semanticism is not a good idea, if one seeks to present a principled critique of the very enterprise of ontology. But was Carnap a semanticist? Not in (1950). The topic of verbal disputes is not brought up there. The closest Carnap comes to discussing it is in this passage:

Suppose that one philosopher says: "I believe that there are numbers as real entities. This gives me the right to use the linguistic forms of the numerical framework and to make semantical statements about numbers as designata of numerals". His nominalistic opponent replies: "You are wrong; there are no numbers. The numerals may still be used as meaningful expressions. But they are not names, there are no entities designated by them. Therefore the word 'number' and numerical variables must not be used…" I cannot think of any possible evidence that would be regarded as relevant by both philosophers, and therefore … would decide the controversy or at least make one of the opposite theses more probable than the other … Therefore I feel compelled to regard the external question as a pseudo-question, until both parties to the controversy offer a common interpretation of the question as a cognitive question; this would involve an indication of possible evidence regarded as relevant by both sides.³⁶

Here Carnap brings up how the platonist and the nominalist would not regard the same evidence as relevant for settling the question. A natural further thought might have been: so the platonist and the nominalist are considering different questions. But that is not what Carnap goes on to say. He seems rather to think that the platonist and the nominalist are concerned with the same thing—the external question—but what they are concerned with is a pseudo-question. He says "I feel compelled to regard the external question as a pseudo-question" and seems to refer to the question supposedly at stake by "the external question".

There may however be reason to think that in for example his earlier (1935), Carnap is more sympathetic to the idea that ontological disputes are merely verbal. He there emphasizes the "language-relativity" of philosophical theses. More specifically, he promotes the practice of always, when stating a philosophical thesis, being fully explicit about what language one is using. The reason this would be useful is that participants to philosophical disputes are apt to use different languages, without being aware that they are. Carnap brings up a hypothetical dispute between two philosophers. One of them says "numbers are classes of classes". The other says "no, numbers are primitive objects, independent entities".³⁷ Carnap says that the theorists should first transpose their theses into formal mode. The former theorist then says "numerical expressions are class-expressions of the second order" and the latter says "numerical expressions are not class-expressions, but elementary expressions".³⁸ But stated that way, Carnap says, the sentences are not complete: it must also be stated which languages they concern. When completed, the sentences would read something like "in L1, numerical expressions are class-expressions of the second order" and "in L2, numerical expressions are not class-expressions, but elementary expressions".³⁹ But then it is clear that the assertions are compatible with each other. Carnap only says that disputes *sometimes* vanish when stated this way. There is no explicit claim to the effect that this move by itself makes all ontological disputes go away; nor do I see such a claim being implied.

I mentioned earlier that to have significant consequences for ontology, the basic language pluralist idea must be supplemented by other ideas; and given that Carnap, assuming the language pluralist interpretation, thought that language pluralism had significant consequences, he must have made some such supplementary assumption. Semanticism might be held to amount to one possible such assumption. One possible reason for stressing that there is a multitude of possible languages is that it can then be seen to be plausible that different disputants use different languages. However, as noted, the attribution of semanticism to Carnap is problematic. Moreover, it is not clear how appeal to semanticism could be linked to emphasizing the distinction between internal and external questions.

8.5 Quantifier Variance

A thesis which often gets discussed together with the idea that ontological disputes are verbal is that of *quantifier variance*: the claim that there are different concepts of existence, which all are equally good—there is no metaphysically privileged concept of existence. It is no accident that the theses are discussed together. As mentioned, they were both brought into prominence in the recent metaontological literature by Eli Hirsch. And if the thesis of quantifier variance is true, a friend of the idea that ontological disputes are verbal may naturally further suggest that the disputants use expressions expressing different ones among the different concepts of existence postulated by the thesis of quantifier variance. But clearly, the these should be distinguished. For example, even if my critical points concerning verbal disputes are sound, they in no way impugn the thesis of quantifier variance.

However, an important qualification must be made. While some of Hirsch's statements of the thesis of quantifier variance suggest the thesis characterized in the text and while the quantifier variance thesis characterized in the text is what is discussed by other theorists, such as Hawthorne (2006), Eklund (2007, 2009), Sider (2007, 2009), and Chalmers (2009), it isn't at all clear that this thesis is what Hirsch actually has in mind by 'quantifier variance'. For example, in his (2008), Hirsch says the following: ... the deeper reason for bringing in the imagined communities is to illustrate the possibility of "quantifier variance". It often seems that an implicit assumption of revisionary ontology is that there is only one possible use of quantifier-like expressions in any languages. If that were so, a charitable interpretation of the quantifiers in our language might become moot. By considering the different imagined communities, consisting of non-philosophers who make assertions corresponding to the different ontological positions, we see that the assertions in all these communities are true. The ostensible disputes between these non-philosophical communities are merely verbal. That suffices to defend the commonsensical assertions made by the non-philosophers in our community.⁴⁰

Here Hirsch seems to understand "quantifier variance" simply to amount to the claim that people can use "there is" and "exists" as his imagined communities do, and same-sounding sentences they employ mean different things. There is no call to ask about existence-like meanings, etc. Maybe we should interpret speakers of other communities as meaning something quite un-existence-like by "there is". That doesn't matter to the "quantifier variance" thesis here described. For as far as this thesis is concerned it isn't the similarity between the meanings that is important; what is important is that people using 'there is' in the ways envisaged by Hirsch would mean different things. If that is all we mean by "quantifier variance" then much of what I say about quantifier variance in the main text is false. The reason for focusing on quantifier variance as characterized is that this is an importantly different thesis from semanticism, and one that has attracted considerable attention in the literature. Perhaps one might call quantifier variance as I introduced it strong quantifier variance, and quantifier variance as Hirsch now tends to make clear that he understands it is *weak* quantifier variance. When speaking of quantifier variance unqualified, it is the strong thesis I will have in mind.41

The thesis of quantifier variance faces some immediate troublesome questions. What does it mean to say that there are different concepts of existence? Not that there are different concepts that could be expressed by the string of symbols 'exists', for that would be trivial. Nor, I take it, that there are different concepts that could be expressed by this string of symbols while it means what it actually means. There is only one concept this string could express while meaning what it actually means. (A complication is if 'exists' is somehow semantically indeterminate, but Hirsch does not purport to rely on any such claim.) It is not obvious how this dilemma can be evaded. Hirsch (2002) gestures toward the idea that what unifies the different concepts of existence is their inferential behavior: they satisfy the same rules of inference. But this runs up against the fact that if two expressions in the same language both satisfy the standard inference rules for the existential quantifier, then they are provably equivalent.⁴² This, together with the assumption that the supposed different concepts of existence should be able to cohabitate in the same language, leads to contradiction. (I do not here want to press

⁴⁰ Hirsch (2008), p. 513.

⁴¹ For more on these matters, see my (2011) review of Hirsch's (2011).

⁴² See e.g. Williamson (1987–8).

this objection against quantifier variance. There may be good replies. The point is just to highlight some of the more obvious initial questions that arise.)

Did Carnap believe in quantifier variance? The reason for thinking so would be that the different languages (or frameworks) he discussed would have to be thought of as employing different quantifiers, in the sense of the thesis of quantifier variance. But, first, it is not clear why Carnap would need anything more than the weak thesis of quantifier variance. And a further complication is this. When Carnap discusses different frameworks, he doesn't explicitly discuss two frameworks each with tools for referring to and quantifying over numbers but such that "there are numbers" is true in one and false in another, and "there are" expresses existential quantification in each. Rather, the only framework he discusses with such tools is a platonist framework; a framework within which "there are numbers" comes out true. He does also discuss what a nominalist would say, but discusses only a nominalist who denies that seeming names of numbers are genuine names. It is consistent with everything Carnap says that he would also allow a nominalist framework where quantification over numbers is allowed, but such that "there are no numbers" simply comes out true in that framework. However, the text suggests the different view that in every language where quantification over numbers is allowed, such quantification is successful. The choice between frameworks is not a choice between a framework where quantification over numbers is allowed and successful and one where such quantification is allowed but unsuccessful; it is rather a choice between on the one hand adopting a framework where quantification over numbers is allowed and successful, and on the other simply not allowing quantification over and reference to numbers.

Even if Carnap does not subscribe to (strong) quantifier variance, he arguably, if he is a language pluralist, holds a view related to quantifier variance: a view according to which there simply are platonist languages and nominalist languages and that's it—any claim to the effect that platonism or nominalism is somehow objectively privileged is bound to be mistaken. In other work (2009), I have presented a problem for this idea. Briefly, the problem is this. What sort of language is Carnap himself supposed to be using when expressing his view on the nominalist/platonist dispute? To see that there is a problem here, suppose Carnap were using a nominalist language. How could he, using this language, say both that the characteristically platonist sentences of the platonist language are (by his lights) true and that they are genuinely platonist? He can maybe interpret them as true, by interpreting them as really not ontologically committing. But any such interpretation fails to yield that the supposedly platonist language is platonist. Richard Creath (this volume) purports to respond to this argument on Carnap's behalf. But he seems not to have appreciated the exact form of the argument. First, he insists, purportedly as against me, that Carnap is not committed to the idea of a universal metalanguage. This is connected to his insistence that Carnap is not a metaphysical realist, and that this is something I overlooked. But it is not part of my argument that Carnap is committed to the idea of a universal metalanguage, and Creath does not explain why he thinks otherwise. What I am concerned with is the question: in what kind of language can Carnap's own philosophical claims be stated? (One may perhaps suspect he does

need a universal metalanguage to state his philosophical views, but I don't rely on this claim.) Second, Creath points to how the nominalist can interpret the platonist's sentences such that they come out *true*: he suggests a translation of these sentences into the nominalist's language. But even so, he fails to note that interpreted as he suggests, those sentences, and the language of which they are part, can hardly be described as platonist—and my point was that Carnap needs to be able to say that there are both nominalist and platonist language.⁴³

Like semanticism, quantifier variance can be seen as building on language pluralism. The idea is that there is a plethora of different possible languages whose quantifiers have different meanings. But, again as in the case of semanticism, it is not plausible that Carnap subscribed to the idea of quantifier variance. All this goes back to the question of contemporary relevance of Carnap's external/internal distinction. It may be suggested that semanticism and quantifier variance go along with language pluralism, and that there accordingly is some sort of connection. But the connection is rather tenuous, for language pluralism is not itself a very controversial idea. There would be a closer connection between Carnap and the contemporary discussion if there were significant similarities in the use made of the language pluralism, but no such significant similarities have been found.

8.6 Naturalness

Given the way the debate over the thesis of quantifier variance is conducted, the dispute is between the quantifier variantist, who believes in a multitude of equally good quantifier meanings, and the *ontological realist*, who believes in a unique best quantifier meaning.⁴⁴ An immediate question is what the goodness of a meaning—or, specifically, of a quantifier meaning—comes to. The standard way to spell it out is: a meaning is good to the extent that it is *natural*, or *fundamental*, or *joint-carving*.

Carnap did not explicitly talk that about this; any claim about what Carnap would say about naturalness will have to be speculative. One immediate and straightforward speculation is that for Carnap, naturalness would be a metaphysical notion; and it is then just nonsense to speak of one meaning as more natural than another. This, however, does not automatically make Carnap a quantifier variantist. For he can still deny that there even is a multitude of quantifier meanings.

A second speculation is this. (I don't find it plausible myself, but I should mention it for completeness.) In an earlier quoted passage from his (1950), Carnap says, to repeat,

I cannot think of any possible evidence that would be regarded as relevant by both philosophers, and therefore, if actually found, would decide the controversy or at least make one of the opposite theses more probable than the other. (To construe the numbers as classes or properties

⁴³ Creath (this volume), p. 190.

⁴⁴ Sider (2009) characterizes ontological realism in the following passage: "there is indeed a single best quantifier meaning, a single inferentially adequate candidate meaning that (so far as the quantifiers are concerned) carves at the joints" (p. 397).

of the second level, according to the Frege-Russell method, does, of course, not solve the controversy, because the first philosopher would affirm and the second deny the existence of the system of classes or properties of the second level.) Therefore *I feel compelled to regard the external question as a pseudo-question, until both parties to the controversy offer a common interpretation of the question as a cognitive question;* this would involve an indication of possible evidence regarded as relevant by both sides.⁴⁵

The italicized part of this fits poorly with the tenor of the rest of the article. For Carnap otherwise gives the impression that external questions simply have to be pseudo-questions—no ifs and buts about it. But here Carnap seems to suggest that some work could be done, making the external question into something other than a mere pseudo-question. The remark fits so poorly with the rest of the article that one may wish to dismiss it as not seriously meant. But suppose we do take it seriously. What exactly is that that can be done to turn the external question into a cognitive question?

It can be suggested: what theorists like Sider who speak of especially natural or joint-carving meanings appeal to is exactly what is called for here. While talk of what is natural or joint-carving may sound troublingly esoteric, Sider does provide criteria for when a meaning is joint-carving, and the criteria are of the right general kind to satisfy Carnapian scruples: what establishes a meaning as natural is, paradigmatically, an *ideological indispensability argument*: an argument to the effect that science cannot get by as well without employing an expression with this meaning. If some quantifier is thus indispensable, it is joint-carving.

To stress, I am *not* endorsing the claim that Carnap would greet Sider's suggestion with approval: I think the passage quoted should be read as rhetorical. What I am saying is precisely only that Sider's suggestion fits the letter of what Carnap is asking for, since the kind of procedure Sider characterizes is one that promises to settle the issues at hand in a suitably scientific manner.

8.7 Concluding Remarks

A few concluding remarks may be in order. I first discussed Carnap's internal–external distinctions, his belief in analyticity and his commitment to verificationism, and compared the contemporary literature. Then I turned to some ideas from the contemporary metaontological literature—semanticism, quantifier variance, and the appeal to naturalness—and compared Carnap. The overall conclusion is the one stated earlier. Carnap's importance for contemporary ontology is overstated. Moreover, to the extent that some contemporary themes are found already in Carnap, the contemporary discussions are just as problematic as Carnap's own discussions were.*

⁴⁵ Carnap (1950), p. 219; my emphasis.

^{*} Versions of this chapter have been presented at the Central APA in Minneapolis in 2011 and at the *Talking of Something or Talking of Nothing?* workshop at the University of Gothenburg in 2014. Thanks to the audiences there, as well as to Amie Thomasson and two anonymous referees, for useful feedback.

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Carnap and Ontology Foreign Travel and Domestic Understanding

Richard Creath

"The past is a foreign country: they do things differently there" (Hartley 1953, 9). That is the opening line from a novel by L. P. Hartley, but it may even be true. The past *is* foreign to many of us, and certainly people *have* done things differently. But foreign travel, they say, is educational. Perhaps we can learn something we can use. And those of us who are accustomed to "foreign" travel might also learn from those who stay at home: by attending to domestic matters we might learn more about how to understand the foreigners we meet. Or so I shall argue here.

Given my title it will come as no surprise that the bit of the foreign world, that is, the past, that concerns me is Rudolf Carnap on the topic of ontology. And the domestic matters that concern me are the current discussions of metaontology, especially the broadly neo-Carnapian movement and the inevitable backlash. First, I want to examine what the historians can learn from the contemporary debate, or more accurately to illustrate that. Roughly my answer will be that we can learn to ask questions of the text that we had not always asked before and perhaps to see in the text subtleties that had not yet fully come into focus. Thereafter, I want to see whether there might be features of Carnap's position that might be interesting or suggestive or helpful in the context of the contemporary debate. We need not agree with Carnap's position in order to learn from him.

As almost everyone who has kept up with the debates knows, there has been a resurgence of interest in Carnap among contemporary philosophers interested in metaontology and even a neo-Carnapian approach to these problems. There is Eli Hirsch (2002 and 2009), Amie Thomasson (2007), and David Chalmers (2009) just to name three. But it is not just the friends of Carnap in the broad sense from whom historians can learn. One can learn from Carnap's critics as well. I think, for example, that Matti Eklund counts as an unsympathetic critic of Carnap, of neo-Carnapian approaches to metaontology, of me, and of other historians who I think are knowledgeable about Carnap. I could respond to the various criticisms, but I do not want this to be a polemical essay.

Instead, what I want to show is that at least one of Eklund's criticisms (whether it is of neo-Carnapians or of Carnap I cannot always tell) helps to bring some of Carnap's views into clearer relief. Eklund argues in "Carnap and Ontological Pluralism" (2009) that it is not possible for the nominalist and the Platonist each to recognize the other's sentences as true—not even in the other side's own language. This is because a referential theory of truth is either the only theory of truth we have, or at least it is Carnap's theory of truth. Set aside the issue of whether a referential theory is the only option of accounts of truth. Further let us grant the claim that Carnap's own account of truth is referential, though I think Carnap's notion of reference is not nearly as robustly realist as Eklund's.

As far as I can tell, and it is hard to be sure, this is the way that Eklund is conceiving of the matter: To talk about truth, that is, to do semantical analysis, we need a metalanguage in which to talk about various languages. That metalanguage will itself need a universe of discourse. To talk about truth requires that each expression that is non-logical in the narrow sense be assigned a referent that is either in the universe of discourse or constructed from items in the universe of discourse (as with ordered n-tuples or sequences).

Now on this line of reasoning either there are numbers in the universe of discourse or there are not. If there are, then the mathematical Platonist's claims can come out true. But the nominalist's insistence that there are no numbers is just false, and his or her description of the world is just false and/or incomplete. If the universe of discourse in this semantical analysis has no numbers in it, then the claims of the mathematical Platonist are just false. And no appeal to a plurality of languages will avoid this sad end, even if we are careful to emphasize that it is truth in the Platonist's language that concerns us.

This argument is admirably straightforward, and its reasoning is not so subtle or abstruse that Carnap would have missed it. The argument does seem to me to embody a form of blunt metaphysical realism that Carnap was at pains to avoid. But that is no argument against it. It also seems to me that if historians are to make sense of what Carnap was doing, or thought he was doing, in appealing to alternative frameworks, then we have to take this argument seriously and see what Carnap could say in response.

If we are to succeed, we have to understand that Carnap is not—though he *can* quite naturally be seen to be—trying in his semantical work to construct a single common or privileged metalanguage within which to adjudicate truth claims or even state truth conditions for all languages. If we were to go that route we would surely realize Neurath's fear that in doing truth theory we smuggle into these analyses one particular metaphysical point of view and beg the question against all others.¹ Carnap is, rather, trying to show that for each object language, a metalanguage could be constructed sufficient to express truth conditions for the sentences of that object language. To give

¹ Neurath's arguments against the semantic conception of truth were many, varied, and uneven. For an excellent review of these arguments, see Mancosu (2008).

truth conditions of, say, 'Snow is white', a sentence in language L1, we need to have in the metalanguage under construction, call it ML1, a translation of the original L1 sentence. If meaning is given by the rules, that involves reproducing the rules of L1 within ML1. Then one adds to ML1 names for the expressions in L1, a truth predicate, and a Tarski-type truth definition. The important point is that no assumption is made that there is one common or privileged metalanguage.

How then can we talk about the truth or falsity of someone else's claims (sentences) made in someone else's language? Certainly the problem under discussion does not arise in talking about the syntax and pragmatics of a different language. We could even recognize some of the other's sentences as analytic in that language. And we can do these things without begging important questions against them. The problem outlined earlier arises only when we try to provide a Tarski-style semantics for languages of different structures or different ontologies and to provide that semantics within one and the same metalanguage.

Not only can we talk about other languages, we can recognize that for those other languages, a metalanguage can be constructed that has the resources to provide a truth theory for that language and that does not change the meanings of the expressions of the language. Moreover, this truth theory can assign the value true to the analytic sentences of that language and, one hopes, to many or most of the sentences that our interlocutor earnestly affirms.

We can in general map the object-level sentences taken as true by each side into those taken to be true by the other. This is most surprising in the nominalist/Platonist issue, and a full argument for this claim will have to wait for an adequate formal explication of each side. But perhaps the chief surprise is finding targets in the nominalist's language for the general claims of pure mathematics. Remember that all these are analytic and can therefore be mapped onto the nominalist sentence '(x)(x = x)'. Applied mathematical claims, such as 'There are two books' can be accommodated in other, standard ways such as ' $(\exists x)(\exists y)(Bx \& By \& x \neq y)$ '. Indeed, nominalists were so called because they held that numerals are mere names. In more modern terminology, they held that numerals may have the surface grammar of names, but they are not in fact referring expressions. Instead, they are parts of larger complexes that describe the results of counting or simple measurements (Creath 1980).

We have just seen that we can recognize that for our interlocutor's sentences there is an appropriate metalanguage under which those sentences, or most of them, come out as true. It is only on the assumption of a single metalanguage in which the word 'true' is to occur that one might imagine that the nominalist could not recognize the truth of the Platonist's characteristic sentences.

But one might protest that defusing the ontological dispute in Carnap's way requires more than that each side be able to recognize the truth of the other's sentences. Eklund suggests that beyond recognizing the truth of the other's sentences, the nominalist must recognize the genuine Platonism of the Platonist. At one point in his chapter (this volume, 167) Eklund seems to identify Platonism with "the *proposition* that there are abstract entities". This is puzzling even if we do not worry over whether the definiteness of the description is appropriate. Perhaps Eklund means to identify Platonism with the belief in the truth of that proposition. In any case, if a sentence is true, then the proposition that it expresses is also true. So if the nominalist can, as shown, recognize the truth of the Platonist's sentence 'There are abstract entities', then the nominalist can recognize the truth of the proposition that this sentence expresses just as easily. There is not any further task to be done.

It is in this sense that we can recognize (most of) our interlocutor's sentences and the propositions they express as true. So now we have outlined a way that Carnap might have responded to Matti Eklund's criticisms, assuming that they were in fact directed at Carnap. And I think that this is an aspect of Carnap's thinking that historians might have missed were it not for criticism like Eklund's.

Once we have this possibility firmly in mind, I think we can go back to the text and see that this is what Carnap in fact was doing. In his semantical work he showed how to construct language-by-language metalanguages and truth theories within each rather than a one-size-fits-all theory of truth. This was why Carnap bristled when in "Two Dogmas" Quine demanded a definition of 'analytic for L' for variable L. Carnap's response was: "... such a demand is manifestly unreasonable; it is neither fulfilled nor fulfillable for semantic and syntactic concepts, as Quine knows" (Carnap 1990, 430). In this connection Carnap specifically cited Richard Martin's "On 'Analytic" (1952) where Martin said that we lack a definition for 'true for L' for variable L.

As in this example, historians can often learn from the systematic criticism of non-historians. In taking these systematic criticisms seriously we can learn to ask new questions of our historical subjects. Sometimes the result is anachronism, but sometimes we can learn to see our subjects more clearly. We might learn that they had heretofore unnoticed defects. But sometimes we might learn that those historical subjects are more subtle than many have supposed.

The learning might go the other way too. If the past is a foreign country, as Hartley said, then those who largely stay at home in the contemporary world might acquire something of value by occasionally travelling in foreign parts. The learning is hardly guaranteed, and it is unlikely to be a panacea for all that troubles us. But still, especially in Carnap's case, the study is apt to be illuminating. Whether we ultimately embrace his views or not, we may find something we can use.

Carnap is not completely unknown to us. We often know just enough to be baffled. In *Meaning and Necessity* (1947) Carnap offered what we would now see as a metaphysical view even including an ontology of extensions, intensions, properties, propositions, physical objects, numbers, and so on. Yet all the while he claims to be against metaphysics and in some of his writing calls metaphysicians "musicians without musical ability" (Carnap 1932b/1959, 80). He embraces a mathematical language some of the expressions of which, he says, refer to numbers. Yet he resists the idea that this is ontologically committing or amounts to Platonism in any substantive sense. Similarly, he embraces a language of physical objects as well as the language of modern theoretical physics and denies that he is a realist at all, whether it is physical realism or scientific realism that is at issue.

In all this, Carnap may seem to be confused, though I doubt it. I do not claim that Carnap is always right, but I do think that most of the ideas of the last paragraph that seem so difficult to reconcile can be put together in one subtle and powerful perspective and that it is this viewpoint that will be of considerable value to contemporary metaontology. Discerning this unified perspective is difficult because Carnap's views changed over time. And even when they did not change, his situation and his interlocutors as well as the challenges they presented changed, so his responses to an altered situation changed as well. There is neither space nor need to trace all the turns in Carnap's work, especially when it is the central thread of his mature work that is most relevant to the contemporary situation in metaontology.

That contemporary situation is roughly this: We find ourselves with a multiplicity of ontological schemes that are often original, provocative, and skillfully defended. Who would have thought prior to recent years that we would consider an ontology that contains no tables but only "simples arranged tablewise"? (van Inwagen 1990) And more traditional ontological schemes thrive as well. In philosophy of science both scientific realism and anti-realism are alive and well. In the philosophy of mathematics both nominalism and Platonism go sturdily onward. Indeed, the sheer number of apparently defensible schemes is a bit of an embarrassment. And while these schemes may be defensible, showing that one is the correct choice is a rather more difficult task, perhaps an impossible one. And viewed in the traditional way, these schemes are inevitably in conflict; no more than one of them can be correct. In many cases it would seem that there could not be empirical evidence to decide or help decide. In this regard Quine's epistemological holism has not proved to be a universal solvent. We have, in short, reached what may seem to be an impasse. This does not rule out some scheme or other becoming overwhelmingly popular. It has happened before. But it is difficult to discern what could count as evidence or reasons that everyone should accept for the correctness of the scheme.

Carnap's mature philosophy, represented most emblematically by the Principle of Tolerance and "Empiricism, Semantics, and Ontology" (1950/1956), was forged in a context relevantly similar to the current situation in ontology. The Principle of Tolerance was first expressed (though not named) in the protocol sentence debate of the early thirties. His friends had offered several different accounts of what sentences, or more accurately what forms of sentences, should be taken as observational reports. It was hard to see how to produce *evidence* to settle such a dispute without presupposing one account or another. Carnap's response was that the various accounts should be thought of as proposals for structuring the language of science and not as claims that are true or false. As he put it:

My opinion here is that this is a question, not of two mutually inconsistent views, but rather of two different methods for structuring the language of science, both of which are possible and legitimate I now think that the different answers do not contradict each other. They are to be understood as suggestions for postulates; the task consists in investigating the consequences of these various possible postulations and testing their practical utility. (Carnap 1932a/1987, 457–8)

Carnap's remark here itself counts not as a claim that is true or false but as a proposal for how to understand the debate. The proposal allows each side to proceed and to allow science to proceed without getting bogged down in endless wrangling.

Carnap was writing *The Logical Syntax of Language* (1934/1937) while he developed this approach to the protocol sentence debate. In this book he applied the same approach to a multiplicity of logics. Again it is hard to see how such a dispute could be settled since any *argument* would seem to presuppose one of the accounts. Even in the "Forward" to the book he makes his position and his commitment to the Principle of Tolerance explicit:

The range of possible language-forms and, consequently, of the various possible logical systems is incomparably greater than the very narrow circle to which earlier investigations in modern logic have been limited The fact that no attempts have been made to venture still further from the classical forms is due perhaps to the widespread view that any such deviations must be justified—that is, that the new language-form must be proved to be 'correct' and to constitute a faithful rendering of 'the true logic'.

To overcome this view, together with the pseudo-problems and wearisome controversies that arise as a result of it, is one of the chief tasks of this book. In it the view will be maintained that we have in every respect complete liberty with regard to the forms of language;[L]et any postulates and any rules of inference be chosen arbitrarily; then this choice, whatever it may be will determine what meaning is to be assigned to the fundamental logical symbols. By this method, also, the conflict between the divergent points of view on the problem of the foundations of mathematics disappears ...

The standpoint we have suggested—we will call it the *Principle of Tolerance* (see p. 51)—relates not only to mathematics, but to all questions of logic. (Carnap 1934/1937, xiv–xv; I have departed from the published translation very slightly.)

Then on page 51 he says: "... *Principle of Tolerance: It is not our business to set up prohibitions, but to arrive at conventions*" (Carnap, 1934/1937, 51), and on page 52 he states the principle more explicitly:

In logic, there are no morals. Everyone is at liberty to build up his own logic, i.e. his own form of language, as he wishes. All that is required of him is that, if he wishes to discuss it, he must state his methods clearly, and give syntactical rules instead of philosophical arguments. (Carnap 1934/1937, 52)

In the new regime we are free to lay down whatever sentences we like as analytic. Of course, we have to be prepared to pay whatever practical price that involves. Our words are not independently meaningful, but receive whatever meaning a selection of

analytic sentences (or later semantical rules) provides for them. These analytic sentences/rules are not hypotheses in need of confirmation. They are essentially implicit definitions that define, among other things, what counts as an argument or confirmation.

What is characteristic of Carnap's position, early, middle, and late, is that he insists that we need to clarify what we say by specifying what follows, logically or semantically, from what. Carnap thought that an analytic/synthetic distinction was indispensible for this. As we know, Quine rejected that distinction. I do not find Quine's arguments on this compelling, but many people do. This, however, is not the place to argue this issue. I will say, though, that those Quinean arguments are directed equally against all intensional notions. And if you find the arguments compelling against analyticity, then you ought to abandon such other intensional notions as *proposition* and *necessity* as well. Given Quine's eventual acceptance of a notion of analyticity in *Roots of Reference* (1974), one might try to develop an intermediate view that accepts some intensional notions but still allows a principled argument against Carnap's position. This is harder than one might suppose, but again it is more than can be discussed adequately here (cf. Creath 2004, 56–7 and Creath 2007, 332–3).

Carnap re-expresses this same view in "Empiricism, Semantics, and Ontology" in 1950. At the time he was under pressure from his friends, Nagel, Goodman, and Quine in this case, not to adopt the language of classical mathematics or any language that speaks of abstracta and to opt instead for some nominalist alternative. Classical mathematics involved Platonist ontological commitments, and such commitments, they felt, were inconsistent with a proper empiricism.

To Carnap, this insistence that we avoid talking of abstracta is just a prohibition on certain linguistic forms and a dogmatic one at that. His response is to propose that we reorient our understanding of the dispute. That dispute is ostensibly about mathematical entities, but it would be more fruitful, Carnap says, to see it as primarily about the acceptance or rejection of languages that take the axioms of classical mathematics, including the existentially quantified claims, as analytic. Included in the proposal is that we view the choice of a language as a practical choice about what tool to use rather than as a theoretical decision that is either correct or incorrect. Such a choice is not a *claim* that the language is the most useful or the most useful for a given purpose or even that it has some minimal level of utility. It is not a claim at all.

To treat something as a proposal is neither to patronize nor to trivialize it. Carnap was a deeply committed empiricist, but by the mid-thirties he urged that empiricism was best viewed as a proposal to adopt a language of a certain sort (Carnap 1936–37, 33). Given the success of empirical science he was confident of its practical utility, but utility was still the measure, not correctness. Even the Principle of Tolerance itself is a proposal not a claim.

Carnap's Platonist is free to choose a mathematical language, and in this language the claim, i.e., sentence, that there are numbers is trivially (analytically) true. This choice is convenient for science but runs a somewhat greater risk of contradiction. Carnap's nominalist is free to get on with the business of science without such mathematical language. It would be cumbersome, but it might well be done. This inconvenience is mitigated a bit by the lesser likelihood of contradiction. In any case Carnap's nominalist lacks the resources even to say that there are no numbers and cannot complain that the Platonist's linguistic choice is incorrect any more than the Platonist can complain that the nominalist's choice leaves the picture incomplete. We saw earlier how each side could claim that his or her sentences were true, and how each side could recognize the legitimacy of the other's claims to truth within their respective languages. Moreover, the two sides have chosen languages with different sets of analytic sentences, and to this extent their words are different in meaning.² How much of a change this would be or whether a different vocabulary would be less misleading is a matter that can be addressed only on a case-by-case basis. So even if the nominalist were in a position to say (in the nominalist's language) that there are no numbers, this would not contradict the Platonist's statement (in the Platonist's language) that there are numbers. This effectively defuses the disagreement.

It also reformulates and reorients that disagreement in important ways. Carnap, of course, was not trying to leave it intact. He was under no illusion that either the traditional Platonist or the traditional nominalist would say "Oh yes, that is what I meant all along." They will not say this because they understand themselves to be and mean themselves to be disagreeing with each other. Carnap thought that the disagreement in its original form leads to "wearisome controversies" and more serious ill effects. At the end of "Empiricism, Semantics, and Ontology" he says:

To decree dogmatic prohibitions of certain linguistic forms instead of testing them in terms of their success or failure in practical use, is worse than futile; it is positively harmful because it may obstruct scientific progress. The history of science shows examples of such prohibitions based on prejudices deriving from religious, mythological, metaphysical, and other irrational sources, which slowed up the developments for shorter or longer periods of time. Let us learn from the lessons of history. Let us grant to those who work in any special field of investigation the freedom to use any form of expression which seems useful to them; the work in the field will sooner or later lead to the elimination of those forms which have no useful function. *Let us be cautious in making assertions and critical in examining them, but tolerant in permitting linguistic forms*. (Carnap 1950/1956, 221; emphasis in the original)

These are not the words of someone who want to keep philosophers from developing ontological structures. Far from it. Instead he wants to give philosophers the freedom to develop a multiplicity of such structures and to reorient their conception of their efforts in a more fruitful way. Eklund says in many places (2009, 136, 137; 2013, 246; this volume, 165, 169, and 182) that Carnap is *dismissive* toward ontological disputes.

² This talk of differences in meaning immediately suggests Eli Hirsch's discussion of "quantifier variance" in Hirsch (2002). The interesting issue is not whether Hirsch's view is the same or different from Carnap's. The central question is rather the extent to which appeals to quantifier variance can blunt the apparent conflict between the statements of the nominalist and those of the Platonist. The answer may well depend on how that conflict is to be conceived.

This is a bit misleading. It would be more accurate to say that Carnap wants to *trans-form* the discussion of philosophical ontology rather than to dismiss it. He wants to transform it from a theoretical dispute that has not gotten very far in a very long time (except for changes in fashion) into a practical issue over what tool to adopt. On Carnap's transformative approach we can productively investigate the practical consequences of using this or that tool and get on with the business of science without trying to find the one correct metaphysical position to adopt.

This is why Carnap is particularly relevant now, as we think about the contemporary situation in ontology. We face a bewildering multiplicity of ontological structures, just as Carnap faced a multiplicity of claims about observational reports and also a multiplicity of claims about logic. His Principle of Tolerance was a proposal to defuse the conflict and reorient the discussion. Reflecting on Carnap now—foreign travel into the past, if you will—opens up the same sort of possibilities for us. It is not necessary to agree with everything that Carnap said in order to learn something that we can use. It would be a start even to recognize that the dispute can be reconceived. The reconception that Carnap proposed is no small matter. It opens up possibilities that we did not know we had. Moreover, it shows ways of underwriting the non-empirical work in which philosophers often engage while integrating that work with the empirical work of contemporary science. Because Carnap's reconception was itself a proposal, he thought of it as a tool that could be refined or replaced. It is our tool now to use or refine as we see fit. Viewed in this way, Carnap's ideas can be for us more than an idle souvenir of foreign travel.

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10

Carnap on Abstract and Theoretical Entities

Gregory Lavers

10.1 Introduction

Carnap's 'Empiricism, Semantics, and Ontology' (Carnap (1950a), *ESO* hereafter) is certainly a classic of twentieth century analytic philosophy. For decades now, most undergraduates are expected to read it at some point in their studies. Lately, it is being seen as the inspiration for a host of positions in the field of metaontology. Despite the widespread agreement on the importance of the paper, there is a lack of agreement on what Carnap attempts to do in the paper. My main aim in this chapter is to defend an interpretation of *ESO* by displaying its relation to Carnap's earlier works. My secondary goal will be to draw a lesson from this discussion for Carnap's later work on unobservable entities in science.

In the case of abstract objects, my goal will be to show the relation of Carnap's position in *ESO* both to his earlier views on ontology, and to his views on explication. I begin, in Section 10.2, by discussing Carnap's position on matters of ontology as expressed in *The Logical Syntax of Language* (Carnap (1934/1937), *Syntax* hereafter).¹ I then turn, in Section 10.3, to Carnap's conception of an *explication* and his mature views on ontology. The term *explication* appears nowhere in the text of *ESO*, but Carnap, in 1950, sees providing explications for unclear concepts as the central task of philosophy. I will pay particular attention to what Carnap himself identifies as the principal goal of *ESO*. Carnap says that his primary goal is to defend the use of abstract objects as designata in semantics. I argue that, to understand how Carnap takes himself to accomplish this goal, one must appreciate that Carnap sees Tarski as providing a successful explication of the notion of truth. A similar explication can also easily be given for the concept of reference. Having, in hand, so to speak, an explication of these concepts is the principal difference between Carnap's later and earlier positions on ontology.

¹ Carnap, as is well known, was not a fan of the word 'ontology'. But his distaste for it was not so great to preclude him from using it in the title of his main essay on the subject.

With this understanding of Carnap's position on abstract objects in place, I turn in Section 10.4 to the question of the status of theoretical entities (unobservables). Carnap's mature position on this matter is now known as the Carnap-Ramsey sentence approach to scientific theories. I show that this approach is a quite elegant solution to a problem that Carnap set for himself—that of how theoretical vocabulary could be introduced. I conclude, in the final section, by looking at the relation between Carnap's position on theoretical terms and the realism/instrumentalism debate. I show that while in the case of abstract objects there is a quite thorough rejection of nominalism, in the case of theoretical objects, Carnap, rather than displaying his trademark neutrality, displays some preference toward instrumentalism. I argue that this asymmetry in his positions toward nominalism and instrumentalism is unmotivated.²

10.2 Abstract Objects in Syntax

In this section I would like to discuss Carnap's views on the existence of abstract objects at the time of his writing *Syntax*. In Section 10.3 we will see how his mature position on ontology, which was finalized around 1950, grew out of these views. For the most part *Syntax* avoids rather than addresses ontological problems by employing the distinction between the *material* and *formal* mode of speech. Carnap, at the time, took 'formal' to mean not concerned with the *meaning* of the linguistic items under discussion.³ Talk of reference, then, was the hallmark of the material mode of speech, and ought to be eliminated if one seeks a properly philosophical understanding of an assertion.

Carnap's position at the time of *Syntax* is, of course, guided by the principle of tolerance:

It is not our business to set up prohibitions, but to arrive at conventions...

In logic there are no morals. Everyone is at liberty to build up his own logic, i.e. his own language, as he wishes. All that is required of him is that, if he wishes to discuss it, he must state his methods clearly, and give syntactical rules instead of philosophical arguments. (Carnap, 1934/1937, \$17)

This principle makes no mention of ontological considerations at all. It does, however, allow anyone to accept any language with any set of existential sentences among the analytic sentences of the language. For instance, we might accept the axiom of infinity as a primitive sentence (axiom) in some logical system. One might expect Carnap to see no problem at all here and to view this as an obvious consequence of the principle

² My final position is very much influenced by Demopoulos (2013). Here Demopoulos argues that Carnap has no legitimate motivation for treating the theoretical vocabulary as open to arbitrary interpretation. My conclusion is quite similar to this, but arrived at by very different considerations.

³ When Carnap talks of *meaning* in *Syntax*, he means to include both reference of terms and the sense of entire sentences. See for instance the first paragraph of \$1.

of tolerance. However, as we will see, at the time of *Syntax*, Carnap does see at least a *prima facie* problem here. Rather than dismiss this apparent problem by restating the principle of tolerance, Carnap tries to downplay the ontological import of his languages I and II in several unsatisfying ways. My suggestion will be that the unsatisfactory nature of Carnap's responses on such questions is due to his relegating the concept of reference to the *material mode of speech*, and thus his refusal to consider questions about the meaning of various terms.

Section 38a, which deals with the question of existence assumptions in logic, was written for, but not included in, the original German edition. This section ends with the expression of something very much like his mature position on ontology. Here he is concerned with the status of the axiom of choice. Regarding this axiom, which asserts the existence of choice sets, Carnap says "In Language II we have stated it as a primitive sentence, and we regard the question of its assumption as purely one of expedience" (Carnap 1934/1937, §38a). *Syntax*, however, is a transitional work, and much of what is said is not consistent with his later views on ontology. For instance, he goes on to make a more general point regarding the existential assumptions of any logico-mathematical sentence:

The S₁ [logical sentences] (and with them all sentences of mathematics) are, from the point of view of material interpretation, expedients for the purpose of operating with S_d [Desriptive sentences]. Thus, in laying down an S₁ as a primitive sentence, only usefulness for this purpose is to be taken into consideration. (Carnap, 1934/1937, §38a)

This general point expresses a formalistic attitude towards the logico-mathematical portion of the language that is, as we will see, absent in his later views. When interpreting the language we can ignore the logico-mathematical portion as a mere expedient. This formalism, however, is not the only difference between his position here and his later views.⁴ §38a begins with the statement:

If logic is to be independent of empirical knowledge, then it must assume nothing concerning the *existence of objects*. For this reason Wittgenstein rejected the Axiom of Infinity, which asserts the existence of an infinite number of objects. And, for kindred reasons, Russell himself did not include this axiom amongst the primitive sentences of his logic. (Carnap 1934/1937, \$38a, original italics)

In fact, Carnap goes on to say that, strictly speaking, $(\exists x)(x = x)$ should not be counted amongst the logical truths (at least if it is to make no empirical claims). This attitude is clearly in tension with the principle of tolerance. It cannot both be true that in logic there are *no morals* and that logic *ought not* imply the existence of objects. But notice the caveat about avoiding empirical content blocks this outright contradiction. Nonetheless, this is a quite unstable position. The caveat shows that Carnap is assuming

⁴ I discuss these problems in more detail in my Lavers (2004).

that objects are empirical objects. The contrapositive of the caveat is that if a system *does* assume something about the existence of objects, then it *is not* independent of empirical knowledge. All knowledge of objects must then be empirical. I say that the view here is unstable because, as we saw above, Carnap concludes the section by saying that he is willing to regard the entire logical (logico-mathematical) portion of the language as a pure formalism. In this section then, Carnap espouses *both* the view that we should, ideally, not accept the existence of any objects as a matter of logic, *and* the view that we may accept any collection of objects at all on the logico-mathematical side of the language. I take it to be quite clear here that Carnap's thinking on these issues is not fully worked out at this point.

§38a proposes several answers as to how we are to deal with the existence assumptions of logic. The first is to show how we could modify standard logical systems to avoid making any existential commitments whatsoever. "[I]f, in order to separate logic as sharply as possible from empirical science, we intend to exclude from the logical system any assumptions concerning the existence of objects, we must make alterations in the forms of language used by Russell and Hilbert" (Carnap 1934/1937, §38a). Here he addresses the technical question of how to set up a language system, much like standard language systems, but that does not count anything of the form ' $(\exists x)$ Px' among its logical truths.

Carnap's next move is to argue that his own systems do not face any ontological worries. He begins by pointing out that Languages I & II are *coordinate* and not *name* languages. A coordinate language uses numbers to pick out elements of a domain in a systematic way, while a name language uses names to refer to objects in the domain. As an example of such a distinction, Carnap appeals to the difference between referring to colors by using names or by ascribing them numbers in some systematic way. To our post-Tarskian (and post-Quinean) ears this distinction seems obviously irrelevant to ontological considerations. If both languages presuppose identical domains, then on ontological grounds they are clearly equivalent.

Carnap's main reason for holding that his languages make no ontological demands is that while they may imply the existence of an infinity of *positions*, "whether or not there are objects to be found at these positions is not stated" (Carnap 1934/1937, §38a). To see what exactly is being stated here we need to look at what Carnap meant at the time by *positions*. When he first introduces the accented expressions (0, 0', 0"...) he takes them to range over a series of positions. He writes: "Let us consider a domain of positions, a one-dimensional series with a definite direction" (Carnap 1934/1937, §3), Throughout *Syntax* Carnap often gives examples like 'Blue(7)' (meaning something blue is found at position 7) as an example of a simple descriptive claim. In §62 where he discusses the interpretation of languages, Carnap gives the example of interpreting a descriptive language with some simple one-place descriptive predicates. Carnap states that all that is needed to interpret such a language is to stipulate some specific series of positions as coordinated with the accented expressions and to associate particular predicates such as 'Red', 'Blue'...with the descriptive predicates of the language in question.⁵ It is clear that, in such cases, Carnap interprets positions as locations in some intuitive sense.⁶

If the accented expressions are part of the descriptive vocabulary of a language, then Carnap has done nothing to calm ontological worries.⁷ Carnap wanted to be clear he was not making any empirical claim. But if the accented expressions stand for positions in some intuitive sense, then the axiom of infinity would assert the existence of infinitely many such positions. This would still be an empirical claim whether or not there was anything to be found at these positions. So where the accented expressions are part of the descriptive vocabulary, Carnap has not shown that the logical truths involving them are empirically empty.

In \$62 Carnap considers as well the interpretation of a language where the accented expressions are part of the logical vocabulary. Having pointed out that interpreting a language involves stipulating a translation, Carnap maintains that we should translate '0', '0'', '0''', ... as '0', '1', '2',... These numerals, in turn, are just abbreviated expressions for the accented expressions themselves. So for the case where the accented expressions are logical expressions, these terms, do not stand for locations in any intuitive sense, but, essentially, stand for numbers.

Of course, we need to say 'essentially' here because Carnap would reject the question of what the accented expressions refer to. In *Syntax* truth and reference were part of the material mode of speech. The material mode of speech is not incorrect, but it is likely to mislead. Carnap avoids all questions concerning the reference of the logical terms of the language by holding that all talk of reference should be eliminated in order to arrive at a proper philosophical understanding. This elimination of the concept of reference allows Carnap to avoid any discussion of the reference of logical expressions. This in turn allows him to hold that the logical portion of the language is a mere calculus whose purpose is to serve as a tool for operating with the descriptive portion of the language. But here Carnap has succeeded in the avoiding the commitment to abstract objects implied by the use of logical terms (such as the accented expressions) only by

⁵ Because the series of accented expressions stands for something needing to be interpreted (associated with a series of with actual positions), I call them descriptive expressions. To determine whether 'Blue(7)' is true we need to interpret both 'Blue' and '7'. Section 50 begins with this distinction between what is a logical expression and what is in need of interpretation (a descriptive expression). Since this distinction made in the material mode of speech, Carnap tries to capture it with a formal definition, but this definition counts the accented expressions as logical even in descriptive languages where they are given a material interpretation. I will use the terms *descriptive* and *logical* vocabulary in the sense that Carnap was trying to capture with his definition (that of requiring a material interpretation vs. what does not stand in need of a material interpretation).

⁶ Of course, by saying positions are locations in some intuitive sense—at least where the accented expressions are part of the descriptive portion of the language—is not to say that they stand for space-time points (which are constructed as quadruples of real numbers).

⁷ In discussing descriptive syntax Carnap takes positions to be locations where a symbol may occur. In this case too then, positions are intended as places in some intuitive sense—the place where a symbol may be located.

refusing to discuss the notion of reference at all. " '5' refers to a number' " when translated into the formal mode of speech becomes " '5' is a numerical term".⁸

Both *truth* and *reference* are part of the material mode of speech, but his attitude towards these two notions is asymmetric. Carnap rejects the notion of reference completely (at least insofar as concerns attaining a proper philosophical understanding of what is being claimed), but he notices that for the logical portion of a language, truth corresponds to the properly syntactic term 'analytic'. By calling the term 'analytic' syntactic, I am following Carnap's own use of the phrase 'syntactic'. What Carnap called syntactic at the time includes much of what we would now call semantics (see Creath 1990).

Overall, Carnap's attempts in *Syntax* to deal with the ontological implications of logic cannot be viewed as a success. When the accented expressions are part of the descriptive vocabulary, Carnap has not shown that the axiom of infinity makes no empirical claim at all. Where the accented expressions are part of the logical vocabulary, Carnap avoids the charge of referring to abstract objects only by rejecting all talk of reference as part of the misleading *material mode of speech*. But even though the absence of the notion of reference is the defining characteristic of the formal mode of speech, and even though Carnap describes translatability into the formal mode as the touchstone for philosophical sentences, there is a hint that Carnap sees the possibility of a sufficiently precise definition of reference for artificial languages:

The material mode of speech is not itself erroneous it only readily leads itself to wrong use. *But if suitable definitions and rules are laid down and systematically applied, no obscurities or contradictions arise.* Since, however, *the word-language* is too irregular and too complicated to be actually comprehended in a system of rules, one must guard against *the dangers of the material mode of speech as it is ordinarily used in the word-language* by keeping in mind the peculiar character of its sentences. (Carnap 1934/1937, \$81, my italics)

Here we see Carnap claiming it is not so much the material mode of speech itself (that is, for the most part, the concept of reference) that is problematic, but the imprecise and unclear role it plays in ordinary language. As we saw just above, while both truth and reference were seen as part of the material mode of speech, Carnap recognized already the possibility of defining the notion of truth for logical languages. As Carnap quickly observed after his discussion with Tarski, both truth and reference can be given a clear and acceptable definition. Carnap's strategy of avoiding discussion of the reference of logical expressions would no longer be practicable.

10.3 Carnap's Views on Abstract Objects after Syntax

In his 'Intellectual Autobiography', Carnap recounts the meeting with Tarski where Tarski discussed his definition of truth for formalized languages. Carnap says that he assumed

⁸ Both the concept of reference and the universal word 'number' must be eliminated when translating from the material mode to the formal mode.

Tarski meant only logical truth, and not a notion of truth for descriptive claims. We saw in the last section that Carnap himself realized that truth could be defined for the logico-mathematical portion of the language. After Tarski insists that his notion of truth includes contingent factual truth, Carnap challenged him to state the truth conditions for a simple sentence like 'this table is black'. Tarski, of course, replied quite simply: "'This table is black' is true if and only if this table is black'. We can see how close Tarski and Carnap were in their thinking about semantic notions at this time. Carnap himself in Syntax, as we saw, pointed out that giving an interpretation of a language involves a translation of the object language into the metalanguage.⁹ But he does not realize that given this conception of an interpretation, it would be easy to define the concept of reference. After all:

'0"' is to be translated as '2'.

and

'0"' refers to 2.

are little more than stylistic variants of each other—at least when the metalanguage contains a sufficient amount of mathematics like the languages that Carnap was considering. With regard to the notion of truth, Carnap was prevented from going as far as Tarski by his insistence that syntax-languages should contain only enough descriptive vocabulary to state which symbols appear at which locations. His metalanguages lacked the expressiveness to claim such things as that this table is black. In both the cases of truth and reference, Carnap shows a reluctance to discuss any relationship between linguistic items and items that are non-linguistic. Carnap says the following concerning such restrictions: "Since it is obviously admissible to speak about facts and, on the other hand, Wittgenstein notwithstanding, about expressions of language, it cannot be inadmissible to do both in the same metalanguage" (Carnap 1963b, 60).

In this section I wish to explain Carnap's mature position on matters of ontology and abstract objects. That is, I wish to deal primarily with the position put forward in 'Empiricism, Semantics, and Ontology'. I would also like to show the relation of this work to others of the same period, as well as to the position and problems discussed in the previous section. Since we are now talking about the Carnap of 1950, we must examine what is a central pillar of his philosophy of this time: the notion of an explication. Carnap was Frege's student, and attended Frege's 1914 course *Logic in Mathematics* where Frege put forward a general account of the analysis of mathematical notions very similar to the account of *explication* that Carnap would put forward decades later (see Frege 1914/1979 and Reck and Awodey 2004).¹⁰ It is somewhat surprising that Carnap seemed to have

⁹ Carnap, in §62 actually states that an interpretation is a translation from one language into another language where the translation is stipulated in a syntax-language. He then states that two or three of these languages may coincide.

¹⁰ Frege there uses the word 'analysis' to mean identifying the properties of an existing term, but he says that in *the construction of a system* we replace the old term with a new one and connections to the old meanings are lost. It is the construction of a system that is similar to Carnap's notion of an explication.

taken no special note of these views of Frege's and did not explicitly discuss his own views on the subject until 'Two Concepts of Probability' (Carnap 1945). These views are implicit, however, in much of his earlier work, including in the principle of tolerance itself, and once explicitly formulated they become central to Carnap's philosophical thought.

Carnap's account of explication is strongly influenced by the paradox of analysis. The paradox of analysis is a follows. Suppose one wishes to give an analysis of some concept A, and one says that to be A is to be B. If A and B have the same meaning, the analysis is uninformative. On the other hand, if A and B have different meanings, the analysis is incorrect. Carnap takes this paradox as a clear refutation of a certain view of analysis. The goal of an analysis simply cannot be to uncover what we meant by a term all along. The goal of an analysis is, then, to give new meaning to the term being analyzed. That is, we replace the old term by a new and clearly defined one. Philosophical analysis conceived in this sense is dubbed 'explication' by Carnap.

Carnap calls the concept we are seeking to replace the explicandum and the concept that we wish to replace it with the explicatum. In The Logical Foundations of Probability Carnap lays out four desiderata for an explication:

- 1. The explicatum is to be *similar* to the explicandum in such a way that, in most cases in which the *explicandum* has been so far used, the explicatum can be used; however, close similarity is not required and considerable differences are permitted.
- 2. The characterization of the explicatum, that is, the rules of its use (for instance, in the form of a definition), is to be given in an *exact* form, so as to introduce the explicatum into a well-connected system of scientific concepts.
- 3. The explicatum is to be a *fruitful* concept, that is, useful for the formulation of many universal statements (empirical laws in the case of a nonlogical concept, logical theorems in the case of a logical concept).
- 4. The explicatum should be as *simple* as possible; this means as simple as the more important requirements (1), (2), and (3) permit. (Carnap 1950b, §3, original italics)

This section is concerned with Carnap's views on abstract objects at about 1950. Let us begin by considering the case of the natural numbers. Carnap would view an account of arithmetic as an explication of the concept of natural number. In fact, he says exactly this in describing Frege's definition of the numbers:

Before Frege, nobody was able to give an exact account of the meanings of [arithmetical] words in non-arithmetical terms. By Frege's *explication* of the numerical words, which I regard as one of the greatest philosophical achievements of the last century, the logical connection between these words and logical particles like "there is", "not", "or", and "the same as" became completely

Frege like Carnap is led to these views by considering what is now known as the paradox of analysis. See Beaney (1996) and Beaney (2004) for a discussion of Frege (and to some extent Carnap) and the paradox of analysis.
clear for the first time. Therefore we have to say that in spite of practical skill in usage, people in general, and even mathematicians before Frege, were not completely clear about the meaning of numerical words. (Carnap 1963c, 935, my italics)

This is from the Schilpp volume on Carnap, for which most of the material was written in the mid-fifties. Notice in this quotation that Carnap explicitly uses the word 'explication'. The goal of providing an account of arithmetic is to provide a replacement for our ordinary talk of arithmetic. If we define the numbers as sets of a particular kind, that does not amount to the claim that numbers are and have always been sets. We replace our old talk of numbers with talk of sets.¹¹ Some have taken these views on explication to imply that Carnap would need to replace arithmetical truth with a concept like provability. Even as early as *Syntax*, Carnap makes it clear that he does not want to take this route. He understands Gödel to have shown that arithmetical truth and derivability (in a recursively axiomatizable system) are distinct notions. Carnap takes arithmetical truth to be a sufficiently clear concept and he attempts to define analyticity so that it agrees with arithmetical truth (see Lavers 2008).

By the time of 'Empiricism, Semantics, and Ontology' Carnap stresses that to introduce the framework of numbers is to introduce a language system that includes numerals, a general term for number, expressions for properties of numbers (e.g., odd, prime, ...), and numerical variables. Although *ESO* does not itself discuss the concept of an explication, it is clear that in introducing such a framework Carnap has in mind an explication of the concept of number. We want to introduce a system that involves the vocabulary of arithmetic and agrees, for the most part, with our ordinary understanding of arithmetic. We can do this in a number of ways. We could simply lay down the Peano axioms. If we went this route we would have to stipulate how arithmetical terms relate to cardinality judgments before we could apply the system. Alternatively, as Carnap himself often prefers, we could, in a type theoretic system, stipulate the axiom of infinity and introduce the Frege–Russell definition of the numbers as classes of classes of individuals.¹² In this case no further stipulations need to be made in order for the system of arithmetic to be applied in empirical situations.

Of course, no one denies that we can introduce systems in which we can show such things as $^{7} + 9 = 16$ ' or '8 is not prime' and otherwise generally agree with our concept of number. That is just to say, it is generally acknowledge that we can give a Carnapian explication of arithmetic. This much is not controversial. Sure we can lay out logico-mathematical systems with terms for numbers and so on, but, many might ask, how do we know that any of its sentences are true or that its terms refer? Perhaps we ought to treat the system as a pure formalism. These are all concerns about the appropriate

¹¹ By talking of an explication of the concept of number, Carnap does not mean analyzing how a non-specialist uses a term. The above quote, for instance, explicitly talks about mathematicians. By speaking of a system that agrees with 'our ordinary' concept of number, I too do not mean to privilege the non-specialist but only to point out that the concept of number here is the one prior to any reconstruction or explication.

¹² See, for instance, Carnap (1939/1955).

semantics for the language. Many commentaries on *ESO* focus on the notion of a framework or the distinction between internal and external questions.¹³ But Carnap himself says that the overall purpose of the paper is to address the question of whether semantics introduces new and special ontological problems:

Recently the problem of abstract entities has arisen again in connection with semantics, the theory of meaning and truth. Some semanticists say that certain expressions designate certain entities, and among these designated entities they include not only concrete material things but also abstract entities, e.g., properties designated by predicates and propositions designated by sentences. Others object strongly to this procedure as violating the basic principles of empiricism and leading back to a metaphysical ontology of the Platonic kind.

It is the purpose of this article to clarify this controversial issue. (Carnap 1947/1956, 206, my italics)

Carnap, of course, answers that semantics introduces no special ontological problems. It is not, however, until the last section that Carnap addresses what he has identified as the central goal of the paper. Even there, Carnap states his own view on the matter incredibly briefly and then spends much of the section addressing Ryle and the British empiricists on matters tangential to his own view. It is therefore worthwhile to look at what he does say in detail. We saw above that after introducing a system for arithmetic, many will be left asking if the axioms are true, and whether the terms refer. Carnap himself begins by considering the sentence:

(a) 'five' designates a number.

He first points out that if we have provided a suitable system of arithmetic, one that introduces not only the individual numbers but also the general term 'number', it will be trivial to show in that system:

(b) five is a number.

¹³ What I want to stress is the importance of his account of explication (and seeing Tarski as successfully explicating semantic notions) to Carnap's views on ontological questions from the mid-forties onward. The notions of frameworks and internal/external questions were intended as a way of illustrating what this position is, but are not essential to describing the position. The centerpiece of his mature views on ontology (and really his mature philosophy generally), I want to claim, is his account of explication. Eklund, in his contribution to this volume, asks what Carnap means by 'framework' and suggests several interpretations. I do not agree with these interpretations. When Carnap talks of a framework he has in mind a systematic treatment of a certain range of vocabulary. Frege's account of arithmetic (imported into a consistent type theory) is perhaps the perfect example as systematic treatment of a range of vocabulary, and thus, a framework in Carnap's sense. To ask an external question is not to 'absurdly' step outside of any language whatsoever, as suggested by Eklund's language pluralist interpretation. Nor is to step outside the realm of the factual as it is on Eklund's relativist interpretation. Although it is true that there are no facts, this is only because there are no clear questions. When we ask if there are numbers or if numerical terms refer, we are, on Carnap's view, asking questions where the terms have not been precisely defined and therefor lack definite answers. Relative to an explication of the relevant terms, they can have definite answers. On Eklund's view either sentences are individuated syntactically—in which case relativism is true but completely uninteresting, or they are individuated semantically—in which case relativism is false. By seeing sentences such as "numerical terms refer to abstract objects" as ambiguous between reasonable ways of explicating the relevant pieces of vocabulary, we arrive at an intermediary position.

Carnap then says:

Further, to make the statement (a) possible, L [a metalanguage for the language of arithmetic] must contain an expression like "designates" or "is a name of" for the semantic relation of designation. If suitable rules are laid down, the following is likewise analytic:

(c) 'five' designates five. (Carnap 1947/1956, 217)

He points out that (a) follows from (b) and (c). And then he quickly concludes: "Thus the question of the admissibility of entities of a certain type or of abstract entities in general as designata is reduced to the question of the acceptability of the linguistic framework for those entities" (Carnap 1947/1956, 217). Remember, this is identified at the start of the paper as the central conclusion that he wishes to defend. So, it is very important to understand how this blink-and-you-miss-it argument is supposed to work.

Many may notice Carnap's mention of the *analyticity* of " 'five' designates five", and think that the whole argument turns on this notion that is now widely seen as highly problematic.¹⁴ This is to misconstrue the argument. Sentence (c) will not only be analytic, but in fact, provable in suitable systems. The concept of analyticity plays no special role in the above argument.¹⁵ The term that does carry a lot of weight in this argument is the term 'suitable'. A suitable system is one that successfully explicates the relevant vocabulary (be it arithmetical, semantic or otherwise). As we saw, the Carnap of *Syntax* did not think the notions of truth and reference were sufficiently clear in ordinary language, and thought they led easily philosophical confusions. Tarski showed him that *truth* was capable of a clear definition for formalized languages.

Once Carnap explicitly formulated his own account of explication, he cannot but view any definition that meets Tarski's conditions of formal correctness and material adequacy as a successful explication of the concept of truth. Similarly, if the metalanguage includes the object language, then reference can equally be defined. The condition of material adequacy in this case is that:

'a' refers to a

should be provable for every term in the language. So given that both truth and reference can be successfully explicated, they can no longer be dismissed as unclear and concepts that should play no role in a scientific philosophy.

In his 'Intellectual Autobiography' just after discussing the initial negative reaction to Tarski's semantic concepts, Carnap writes:

Throughout my life I have often made the psychological mistake of underestimating the inertial resistance of philosophers not only to new concepts and new views, *but even to new explications and systematizations of old, familiar concepts.* (Carnap 1963b, 62, my italics)

¹⁴ In my (Lavers 2012) I argue that the debate on the topic of analyticity has been largely misunderstood and Quine's position too easily accepted. I discuss Carnap and Quine specifically in reference to ontology in my Lavers (2015).

¹⁵ At least, not a role that could not be played by the less problematic term *provable*.

This passage shows that Carnap himself understands Tarski to have provided an explication (in his sense) of the concept of truth. Carnap can continue to hold the view that the concepts of truth and reference have an insufficiently clear sense in natural language. He thought that in order to address question of whether a term refers or whether a sentence is true requires *an explication* of truth and reference. According to his conception of explication, there is no question of correctness, just sufficient overlap with established use (as well as fruitfulness, simplicity, and exactness). So addressing questions of whether mathematical terms refer requires two stages. First we introduce the object level explication of mathematical notions, then we explicate the notions of truth and reference applicable to this object language. If we do this second step in the most straightforward way, we end up with a notion that agrees very well with what we might instinctively say. '5' refers to a number. '7 + 3 = 10' is true. Carnap would also hold that such a Tarskian treatment of truth and reference is precise, fruitful, and sufficiently simple.¹⁶

When considering the sentence (a) above, the formalist holds that it is false in that arithmetical terms do not refer at all (arithmetic involves meaningless symbols). The Platonist is not satisfied to hold that in a suitable semantic system, that very much agrees with our ordinary pronouncements, 'five' refers to a number. Carnap holds that 'five' refers to a number in a sense that the Platonist finds unsatisfying. Even though Carnap would reject both as metaphysical, Carnap's position is closer to Platonism than to formalism. By the time of *ESO* Carnap could see no draw toward formalism in the case of abstract entities. It is for this reason that Carnap states his goal as helping those who could usefully employ abstract entities "to overcome their nominalistic scruples" (Carnap 1947/1956, 206.)¹⁷

10.4 Carnap on Theoretical Vocabulary

Let us turn now to Carnap's position on the ontology of empirical science, having discussed the case of abstract objects sufficiently well for our present purposes. In a number of places (Carnap 1966, 1966/1974) and Psillos (2000)—this last one is Carnap's 1959 Santa Barbara lecture together with Psillos's introduction). Carnap puts forward a view of how we fix the meaning of theoretical vocabulary based on what is known as

¹⁷ Some people describe Carnap as holding that abstract objects have a 'merely linguistic' existence or that in some other way their existence does not amount to full objective existence. But consider the following quote where Carnap discusses propositions (which are abstract objects) "We take as the extension of the sentence its truth-value, and as its intension the proposition expressed by it. This is in accord with the identity conditions for extensions and for intensions stated in the preceding section. Propositions are here regarded as objective, nonmental, extra-linguistic entities" (Carnap 1947/1956, 25).

¹⁶ So Carnap's ontological relativism arises from his view that there is no unique correct explication of the notions of truth and reference. One need not even be as liberal as Carnap in one's account of explication to arrive at this position. In my Lavers (2012) I argue that Carnap's notion of explication is too liberal and that he might have been better served by an account no more liberal than Quine's view of explication. But any view on explication, including Quine's, that avoids the paradox of analysis by rejecting the idea that the goal of an analysis is to reveal what we meant by a term all along, will be hard-pressed to avoid this relativism.

the Carnap-Ramsey sentence approach to scientific theories. Carnap begins by making a distinction in the vocabulary we use. Some terms we use stand for empirical properties that we can detect quite directly. In this category are such terms as 'hot', 'blue', He refers to these as what the philosopher would call observational (see Carnap 1966/1974). In the next class there are things that cannot be observed so directly, but can be measured quite easily. The scientist, Carnap maintains, but not the philosopher, would call these observable. In this class would be such things as 'pressure', 'temperature', 'voltage', In both of these cases, Carnap admits that the boundaries are vague and certain limit cases may have to be decided somewhat arbitrarily. Carnap himself sides with the scientist in thinking it is more useful to be generous in what we count as observable. That said, there are still certain terms that don't figure in any observation sentences. Such terms include terms for fields that vary greatly over small regions of space-time, and also such terms as 'electron', 'proton'.... Even if we might be able to see the path of an electron, we can't see the electron directly. Our knowledge of such things is clearly mediated by the theories they are part of. Carnap's theory of theories begins with this pragmatic division of the language of science into the theoretical and observational languages. There is no unique correct way to make this division. It involves an explication of what we mean by 'observational'.

The layperson would like a translation of theoretical claims into the observation language, but Carnap states that we cannot simply explain the exact meaning of all of the theoretical vocabulary one at a time in the observation language.

The answer is that a physicist can describe the behavior of an electron only by stating theoretical laws, and these laws contain only theoretical terms. They describe the field produced by an electron, the reaction of an electron to a field, and so on. [...] We must resign ourselves to the fact that definitions of the kind that can be supplied for observable terms cannot be formulated for theoretical terms. (Carnap 1966/1974, 235)

Of course if theoretical terms occurred only in theoretical laws, then physics would be completely abstract and have nothing to do with observation. It is what are known as *correspondence rules* that relate theoretical terms to observation. Whereas theoretical laws express the relations between only theoretical terms, correspondence rules are assertions that involve both theoretical and observational terms. It is the role of correspondence rules to relate the purely theoretical to what might actually be observed:

A postulate system like physics cannot have, as mathematical theories have, a splendid isolation from the world. Its axiomatic terms—"electron", "field", and so on—must be interpreted by correspondence rules that connect the terms to observable phenomena. This interpretation is necessarily incomplete, the system is left open to make it possible to add new rules of correspondence. Indeed, this is what continually happens in the history of physics.¹⁸ (Carnap 1966/1974, 237)

¹⁸ One puzzled by Carnap's use of the term 'axiomatic' to describe the theoretical vocabulary should see Demopoulos (forthcoming).

So far, we have seen that a theory of empirical science will involve theoretical laws that state relations between the theoretical terms, and which we might write as:

$$T_1 \dots T_2 \dots \dots T_n$$

(assuming the theory has n distinct theoretical terms). The theory will also involve correspondence rules relating these theoretical terms to observational terms:

$$T_1 \dots T_2 \dots \dots T_n \dots O_1 \dots O_2 \dots \dots O_m$$

The theory itself, TC, will then be the conjunction of all of the theoretical laws and all of the correspondence rules:

TC = Theoretical laws & Correspondence rules

Carnap's goal is to show how a layperson, someone with no understanding of the theoretical vocabulary, could come to understand this vocabulary. It seems like the layperson would have to accept the theoretical laws and the correspondence rules, before being in a position to understand the theory. But while the theoretical laws and correspondence rules fix the meaning of the theoretical terms, they are not *mere stipulations* that fix the meaning of certain expressions. The theory, after all, is not empirically empty. We certainly cannot reasonably ask someone who does not yet understand a theory to *treat it as true*. So how is one who starts in the position of the layperson, supposed to attain an understanding of the theory? Carnap's answer to this involves two stages.

The first stage is to consider the Ramsey sentence for the theory. Carnap himself reinvented the Ramsey sentence approach to theories. Only later did Carnap realize that Ramsey had much earlier put forward such a view (see Psillos 2000).¹⁹ To arrive at the Ramsey sentence (RTC) of a theory TC, one replaces all of the theoretical terms with variables of the appropriate type and then one adds an existential quantifier for each of these new variables:

$$(\exists X_1)(\exists X_2)\dots(\exists X_n)X_1\dots X_2\dots X_n\dots O_1\dots O_2\dots O_m$$

Notice that the Ramsey sentence for a theory is stated in the observational language.²⁰ It is then in principle possible for the layperson to understand the Ramsey sentence for a theory since it is just a (quite complex) sentence in the language the layperson already understands. The Ramsey sentence says that there are various things related to each other as specified by the (Ramseyfied) theoretical laws and related to observational

¹⁹ Carnap notes that when he was made aware that Ramsey had already put forward what Carnap called the existential form of theories, he looked at his own copy of Ramsey's work and found the relevant section to be underlined in his own hand (again see Psillos 2000).

²⁰ Not the pure observation language, but the observation language augmented with sufficient mathematics to be able to express physical theories. It is assumed that the layperson understands the mathematical vocabulary. Of course, Carnap's aim is not the education of the lay masses (who happen to understand higher mathematics) but to show how theoretical vocabulary could introduced.

terms as specified in the (Ramseyfied) correspondence rules. So, one way to explain how a layperson could understand a theory is to replace the theory with its Ramsey sentence. But this is not Carnap's strategy. This brings us to the second stage in Carnap's two stage process.

The second stage is to introduce what is now known as the Carnap sentence of a theory.²¹ The Carnap sentence CS of a theory is formed as follows:

$$CS = (RTC \Rightarrow TC)$$

The Carnap sentence says that if the Ramsey sentence for a theory is true, then the theory is true. We saw above that we could not view the theory itself as a mere stipulation for introducing the theoretical vocabulary. The reason for this was that since the theory itself has empirical content, it cannot be a mere stipulation. Carnap's goal is to isolate the empirical (synthetic) part of a theory from its analytic component, and it is exactly this that Carnap takes himself to have done with the Carnap-Ramsey sentence approach. The Ramsey sentence captures the empirical content of a theory. The Carnap sentence, although not a logical truth, is still a candidate for representing the analytic component of a theory. The Carnap sentence states, then we shall call the one that plays such and such a role in the theory 'an electron' and one that plays this other role 'the electro-magnetic field' etc. The Carnap sentence can then be seen as a simple stipulation for introducing the theoretical vocabulary.

In Psillos (2000) Carnap points out three features of the Carnap and Ramsey sentence approach to theories that support his claim to have isolated the empirical and the analytic components of a theory. The first is that:

$$(a)(RTC \& TC) \equiv TC$$

That is, together, the proposed analytic and synthetic portions of the theory are equivalent to the theory itself. One direction of the equivalence is simply modus ponens. The other direction follows from the facts that any theory will entail its own Ramsey sentence and that TC is the consequent of the Carnap sentence. The second feature is:

That is, any sentence of the observation language that is derivable from the theory is also derivable from the Ramsey sentence of the theory. If the Ramsey sentence is supposed to represent the empirical content of the theory, this is certainly a feature one would want it to have. The final feature of this approach to theories that Carnap showed is:

$$(c) \vdash RCS$$

²¹ Carnap (1966/1974) refers to the Carnap sentence for a theory as the A-postulate for that theory. An A-postulate is Carnap's new terminology for what he used to call a meaning postulate.

That is, while the Carnap sentence itself is not a logical truth, the Ramseyfication of the Carnap sentence is a logical truth. Given (b), this shows that the Carnap sentence is observationally equivalent to a logical truth.

10.5 Realism vs. Instrumentalism

In the first sections we looked at Carnap's views on abstract objects. We saw that *Syntax* advocated treating the entire logico-mathematical portion of a language as a mere formalism subservient to the descriptive portion. By the time of *ESO*, however, Carnap states that his goal is to allow empiricists to overcome their nominalistic scruples. By this time Carnap is of the opinion that if we wish to introduce abstract objects, and we can do so clearly by setting up the appropriate language system, then we are free to do so if it proves useful to us. As for questions regarding the semantics of such languages, we saw that Carnap accepts a straightforward Tarskian semantics for mathematical languages. He views them as a successful explication of how we employ the concepts of truth and reference in mathematics. I want to now turn to the question of the ontological status of theoretical entities.

We saw that in dealing with ontological matters there are two types of questions. I am *not* speaking, here, about the distinction between internal and external questions.²² There is also the distinction between the question of whether we can clearly introduce a type of entity at the level of the object language and the question of what an appropriate semantics for that object language is. We saw that for Carnap, both stages involve an explication. The first stage involves an explication of the vocabulary concerning the type of entity in question. The second stage involves an explication of the concepts of truth and reference as it relates to the area under analysis in the first stage. In the last section we saw that, in the case of theoretical vocabulary, Carnap's goal is to explain how such vocabulary could be clearly introduced. The Carnap-Ramsey view of theories is a really quite ingenious answer to the problem Carnap sets for himself. So, as for the first question, that of clearly introducing the relevant vocabulary, Carnap takes himself to have successfully answered in the affirmative.

Let us now then turn to the second type of question. Do the theoretical terms refer? Are statements asserting the existence of theoretical objects such as electrons true? In Section 10.4 we saw how Carnap explains the way the meaning of theoretical vocabulary is fixed by its relation to the observational vocabulary. Notice, however, that nowhere in Section 10.4 did we have to mention the semantic notions of truth and reference to explain how the Carnap-Ramsey sentence approach to theories functions. Carnap, as we will see presently, had preferences regarding semantic systems for dealing with object languages involving theoretical vocabulary. What I want to stress at this

²² Though there is a relation. One who poses an external question, concerning, say, the existence of numbers, presupposes there is a unique correct analysis of truth and reference in the case of arithmetic and wishes to know whether, in that sense, numerical terms refer.

point is that the Carnap-Ramsey approach to theories is a way of introducing theoretical vocabulary that takes place at the level of the object language. As such it is independent from Carnap's views on what the appropriate semantics for these object languages are. So what does Carnap say about this further question of what the preferable semantic systems are for these scientific theories? In response to Hempel's concern that the Ramsey sentences, no less so than the theory itself, commits us to theoretical entities, Carnap states:

I agree with Hempel that the Ramsey-sentence does indeed refer to theoretical entities by the use of abstract variables. However, it should be noted that these entities are not unobserved physical objects like atoms, electrons, etc., but rather (at least it the form of theoretical language that I have chosen [...]) purely logico-mathematical entities, e.g., natural numbers, classes of such, classes of classes, etc. (Carnap 1963a, 963)

At the level of the object language, Carnap does not recommend replacing a theory with its Ramsey sentence. He views the Carnap sentence as an acceptable way to introduce the theoretical vocabulary. So, at this level, he sides with the realist in saying we are free to employ theoretical terms. On the other hand, at the level of considering semantic systems for languages containing theoretical terms, he prefers to interpret such languages in a metalanguage that does not itself contain theoretical vocabulary. So, at least in his own preferred semantic systems—that is, at the level of the metalanguage—Carnap sides with the instrumentalist. He does not want to take such things as electrons as the reference for terms like 'electron'. This is at least somewhat odd, given, as already quoted, his comment in ESO: "Thus the question of the admissibility of entities of a certain type or of abstract entities in general as designata is reduced to the question of the acceptability of the linguistic framework for those entities" (Carnap 1947/1956, 217). If, at the level of the object language, we can introduce theoretical terms, then there is no reason why we should not be able to use such terms in our semantic theory to designate the reference of the object language vocabulary.

We saw, in the case of abstract objects, that Carnap, by the time of *ESO*, was not drawn at all to nominalism. Here, in the case of theoretical entities, however there seems to be some lingering attraction to instrumentalism. Consider this quote from Carnap (1966/1974) early in the discussion of the Carnap-Ramsey sentence approach to theories:

How can theoretical terms, which must in some way be *connected to the actual world* and subject to empirical testing, be distinguished from those metaphysical terms so often encountered in traditional philosophy—terms with no empirical meaning? (Carnap 1966/1974, 248, my italics)

Here, and elsewhere, Carnap uses the phrase 'the actual world' to stand for what otherwise might be described *as the world of experience*. Carnap, throughout his career, identified the (cognitive) content of a claim with what it says about the world of experience. The role of science, therefore, is to systematize the world of experience. With the phrase 'the world of experience' interpreted quite literally, so as to exclude all that is clearly not experienceable, this already leans quite strongly toward instrumentalism. Instead of seeing the goal of physical science as an attempt to systematize the world of experience, Carnap could have, and I suggest should have, seen the goal of the physical sciences as describing *the physical world*. The physical world contains, of course, both observable and unobservable entities. After all, Carnap never doubts that we have good evidence for many theoretical claims. In fact, he could say very much the same thing about *the physical world* as he did about *the world of things* in *ESO*:

The concept of reality occurring in these internal questions is an empirical, scientific, non-metaphysical concept. To recognize something as a real thing or event means to succeed in incorporating it into the system of things at a particular space-time position so that it fits together with the other things as real, according to the rules of the framework. (Carnap 1947/1956, 207)

Given the preferred semantic systems mentioned in the quote from the reply to Hempel, scientific theories are means of expressing mathematically quite complex relations between observables. Terms such as 'electron' do not refer to unobservable physical objects, but refer instead to, perhaps, a class of natural numbers. This is not a neutral position between realism and instrumentalism. Carnap is advocating accepting semantic systems that are revisionist with respect to scientific theories. They are revisionist in exactly the sense of avoiding reference to unobservable physical entities. At the level of semantic systems, Carnap does not display his usual neutrality, but sides with the instrumentalist.

We have seen that Carnap sees the question of a suitable semantics for a given object language as the question of what meets his standards for an explication of truth and reference as it relates to subject matter of the object language. So we can now ask how well Carnap's preferred semantical systems for scientific languages fare by this standard. Carnap's proposed semantic systems are quite strongly revisionist. Instead of taking a term like 'electron' to stand for an unobservable physical object, Carnap proposes to have it stand for a mathematical entity of some sort. So Carnap's account of the concept of reference, as it concerns theoretical terms, does not agree very well with established usage. On the other hand, a straightforward Tarskian treatment of the theoretical vocabulary would obviously fare much better in this respect. But what of the other desiderata for an explication (fruitfulness, precision, and simplicity)? If the Carnap-Ramsey sentence approach succeeds in clearly introducing the theoretical vocabulary at the level of the object language, as Carnap takes himself to have shown, then Carnap's preferred semantical systems appear to offer little or no advantage in terms of these further requirements either. It is not at all clear that having 'electron' refer to a class of natural numbers is more clear, fruitful, or simple than having it stand for electrons, especially if at the level of the object language the term electron is taken to be sufficiently clear. The move made by Carnap in his response to Hempel lacks sufficient motivation. Just as Carnap sought to allow empiricists to overcome their nominalistic scruples, he himself should have more fully overcome his instrumentalist scruples.

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11 Questions of Ontology

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11.1 Introductory Remarks

Aristotle begins Book Γ of the *Metaphysics* in this way: "There is a science [*epistēmē*] which investigates being [*to on*] as being and the attributes which belong to this in virtue of its own nature".¹ How exactly Aristotle conceives of the subject matter of this discipline, which we may call "ontology", is of course a difficult question. We are given some further instructions in *Met.* Γ .2, when Aristotle tells us that it belongs to the study of being qua being to investigate not only being, but also its privation, non-being, as well as unity and plurality (including sameness and difference), substance and its attributes, priority and posteriority, genus and species, whole and part, and other things of this sort. But the remainder of *Met.* Γ is all about first principles (i.e., axioms), especially the principle of non-contradiction and how to defend it against Protagorean relativism, as well as truth.

How Aristotle conceives of the subject matter of metaphysics, in relation to ontology, is also a tricky matter, especially because the decision to collect together the fourteen books of what we now know as Aristotle's *Metaphysics* under the heading "*ta meta ta physika*" (literally "those after the *Physics*") reflects only a later editor's judgment about where this material belongs within the Aristotelian corpus relative to the *Physics*, Aristotle's treatise on nature (*physis*). Aristotle himself describes what he is pursuing in these fourteen books in various ways, in addition to "the study of being qua being", e.g., the discipline which aims at "wisdom" (*sophia*), "philosophy", "first philosophy", and "theology". There is a real question, debated by scholars, as to whether the fourteen books of Aristotle's *Metaphysics* in fact delineate a single unified discipline and, if so, what its subject matter is. But we can safely say that all of the topics and distinctions cited above figure among the issues debated there and among them very prominently the study of substance.

Against this Aristotelian backdrop, it certainly comes as a surprise when we fast forward to the middle of the twentieth century and hear W.V. Quine confidently

¹ Met. Γ .1, 1003a21-22, W. D. Ross' translation. The Greek term, "…" which Ross translates here with "as" is also sometimes rendered with the Latin, "qua".

declaring that ontology is concerned exclusively with questions of *existence*, viz., questions of the form, "What is there?", understood as asking about a certain range of disputed phenomena (e.g., numbers, propositions, classes, or properties) whether they in fact exist.^{2,3} In his seminal essay, "Empiricism, Semantics, and Ontology", Rudolf Carnap adopts a similarly existential conception of ontology and argues further that the existential questions with which ontologists appear to be occupied can be classified as either "*internal*" or "*external*" to a given framework:

Are there properties, classes, numbers, propositions? In order to understand more clearly the nature of these and related problems, it is above all necessary to recognize a fundamental distinction between two kinds of questions concerning the existence or reality of entities. If some-one wishes to speak in his language about a new kind of entities, he has to introduce a system of new ways of speaking, subject to new rules; we shall call this procedure the construction of a *framework* for the new entities in question. And now we must distinguish two kinds of questions of existence: first, questions of the existence of certain entities of the new kind *within the framework*; we call them *internal questions*; and second, questions concerning the existence or reality of the framework itself, called *external questions*. Internal questions and possible answers to them are formulated with the help of the new forms of expressions. The answers may be found either by purely logical methods or by empirical methods, depending upon whether the framework is a logical or a factual one. An external question is of a problematic character which is in need of closer examination. (Carnap 1950, 21–2)

When the existential questions with which ontologists appear to be concerned (e.g., "Are there properties, classes, numbers, propositions?") are construed as questions that are internal to a given framework, then, in Carnap's view, they are not especially problematic and can be answered either through empirical or through logical methods. For example, once we are committed to the "system of natural numbers", then it follows logically from the commitments of the framework that the question, "Are there natural numbers?", when construed internally, is to be answered in the affirmative: for the statement, "There are natural numbers", is logically entailed by the statement, "Five is a natural number", which is itself an analytic truth within this framework (Carnap 1950, 25). But when the existential questions apparently asked by ontologists are construed as external questions which concern the reality of an entire framework,

² Quine (1948); for a more recent expression of the Quinean approach to ontology, see also "Thesis 2" of van Inwagen (2009): "Being is the same as existence" (p. 480).

³ The Greek verb, "*einai*" ("to be"), from which the participle, "*to on*" ("that which is"), derives can certainly sometimes be felicitously rendered in English as "to exist"; but there is no reason to think that Aristotle conceived of the study of being qua being as exclusively, or even primarily, concerned with the existence or nonexistence of some disputed range of phenomena. Even in those cases in which Aristotle is engaged in a dispute with other philosophers (e.g., when he disagrees with the Platonists over their treatment of universals, forms, or mathematical entities), the contentious question is not whether these entities exist at all, but rather whether they are independent or separate (*chōriston*) from the sensible realm. As far as Aristotle is concerned, then, one should not conflate the study of being with the study of existence. And, given his broad construal of the study of being, I do not see much damage done by using the labels, "metaphysics" and "ontology", interchangeably in reference to the Aristotelian enterprise, as it is set out in the fourteen books of the *Metaphysics*.

then Carnap would regard such questions either as pseudo-questions or as involving "a matter of practical decision", as to whether "to accept a certain form of language". A statement like "There are natural numbers", if it were to be construed in the external fashion as concerning the reality of the "system of natural numbers", in Carnap's view, cannot be regarded as an assertion that is either true or false. Rather, according to Carnap, such a statement, when construed externally, can only be taken to signify the acceptance of the framework in question as one that is expedient, fruitful and conducive to the purposes for which it was intended:

An alleged statement of the reality of the framework of entities is a pseudo-statement without cognitive content. To be sure, we have to face at this point an important question; but it is a practical not a theoretical question; it is the question of whether or not to accept the new linguistic forms. The acceptance cannot be judged as being either true or false because it is not an assertion. It can only be judged as being more or less expedient, fruitful, conducive to the aim for which the language is intended. Judgments of this kind supply the motivation for the decision of accepting or rejecting the framework. (Carnap 1950, 31–2)

But one may justifiably wonder whether the Quinean and Carnapian perspective on ontology really does justice to many of the most central concerns of this discipline. Perhaps we do not need to quarrel over the label, "ontology", as long as we can all agree that, beyond the explicitly existential questions pursued by ontology according to the Quinean and Carnapian conception, there is still room for a substantive and distinctively philosophical form of inquiry which we may call "metaphysics" and whose job it is to settle questions about being, more broadly construed, even when these questions are not obviously reducible to questions of existence. But Quine and Carnap have left in their wake a powerful and influential skepticism, still propagated by some of their contemporary followers today, as to whether such a discipline of metaphysics, more broadly construed and not to be equated with the study of existence, would be able to accomplish much substantive and distinctively philosophical work. Quine, after all, sees philosophy as continuous with science, and many of the metaphysical disputes that have populated the history of philosophy would be stripped of much of their importance by his pragmatism.⁴ Carnap, as we saw above, already views even the existential disputes of ontology as not particularly deep, since they are either trivially resolvable (under the internal reading) or they amount to nothing more than choosing a language form that is expedient, fruitful, and conducive to the purposes at hand (under the external reading).⁵

⁴ For a defense of this reading of Quine, see for example Price (2009).

⁵ The neo-Carnapian approach to ontology and metaphysics is particularly well represented in Chalmers, Manley and Wasserman (2009); see for example the contributions by Chalmers, Hirsch, Hofweber, and Thomasson; also in this vein is Chalmers (2012). Quine's conception of ontology as concerning questions of existence is so mainstream that it is usually just taken for granted as a presupposition which does not stand in need of justification. Quine's take on metaphysics at large, however, is considerably more controversial and assumes additional machinery such as his rejection of the analytic/synthetic distinction, holism, pragmatism, ontological relativity, and so forth, on which there is much less consensus among contemporary philosophers.

In what follows, I will argue that some of the most interesting and important debates which properly belong to the study of being, whether we call it "metaphysics" or "ontology", do not concern existential questions at all; rather, such disputes may in some cases focus on non-existential disagreements over questions of fundamentality. Fundamentality can be construed in either a relative or an absolute way. Relative fundamentality is a comparative notion and one that comes in degrees: it allows us to assess an entity's status as fundamental (non-derivative) or non-fundamental (derivative) relative to that of another. When we encounter a pair of entities, such that one is allegedly more or less fundamental or derivative than the other, we should not immediately assume that we are also dealing with a phenomenon that can be correctly described as absolutely fundamental. For example, one might take moral facts to be less fundamental than mental facts, without taking either realm to be fundamental absolutely. Thus, we should take care, in what follows, to separate questions of relative fundamentality from those which concern absolute fundamentality.

We will discover below that at least some substantive non-existential disputes over questions of fundamentality do not comfortably fit into Carnap's internal/external dichotomy: they are neither plausibly viewed as concerning internal questions, whose answers can be determined through logical or empirical methods that are available within a given framework; nor do they lend themselves to an external reading, as involving a practical decision as to how fruitful, expedient, or conducive to our purposes it is to adopt a new way of speaking. Rather, the proper classification of such substantive non-existential disputes over questions of fundamentality really requires us to adopt a very different conception of the study of being from that put forth by Quine and Carnap or their more recent followers. In what follows, I will argue for such an alternative conception of the study of being by considering a dispute between proponents of different versions of trope theory. If my remarks below are on the right track, then understanding the dispute in question properly has far-reaching consequences for how we should conceive of the nature and business of the study of being as a discipline. Given this broader conception of the study of being, it is no longer significant whether we refer to this discipline as "metaphysics" or "ontology", and we may as well use these labels interchangeably.6,7

⁶ Of course, not all neo-Carnapians accept Carnap's internal/external distinction and, even among those who do, not everyone interprets this distinction in the same way. I invite those neo-Carnapians who are unhappy with my application of Carnap's internal/external distinction in what follows to offer their own construal of what, in their eyes, makes the dispute between the pure and impure trope theorist, as they say, "merely verbal" (assuming of course that they do take it to be merely verbal). I hope, however, that I will have made their job at least that much more difficult by arguing that the dispute in question is not properly diagnosed as an existential one; for in that case, if my assessment is correct, the popular strategy of invoking quantifier variance will turn out to be simply irrelevant. (See for example Hirsch (2002) and (2009).)

⁷ For further discussion in this volume concerning the relation between metaphysics and ontology and the allegedly purely existential focus of the discipline of ontology, see also the essays contributed by Thomas Hofweber (especially Section 1.5) and Alan Sidelle (especially Section 3.2).

11.2 Pure vs. Impure Trope Theory

Tropes, also sometimes referred to as "moments" or "modes", are construed by their proponents as particularized properties or individual qualities, e.g., the particular redness that inheres in a rose.⁸ The bearers of tropes, e.g., the rose with which the redness in question is associated, are taken to be concrete particular objects. Different versions of trope theory have been defended in the literature. Two such versions are what I will call below "pure trope theory" and "impure trope theory". According to my reading of the dispute between the pure trope theorist and the impure trope theorist, those engaged in this dispute should be understood as agreeing with one another on the relevant existential questions, "Are there tropes?" and "Are there concrete particular objects?". If, on the one hand, we understand their affirmation of the statements, "There are tropes" and "There are concrete particular objects", as responses to a Carnap-style external question, we can take them to signify the acceptance of a certain trope-theoretic framework as fruitful, expedient, and conducive to the purposes at hand. When understood internally, on the other hand, the truth of these statements follows logically from certain other empirically verifiable truths which both the pure and the impure trope theorist accept. For example, once the truth of a statement like "This rose is red" is confirmed via empirical methods, then, for both the pure and the impure trope theorist, the truth of the existential statement, "There are tropes", logically follows (since the rose's redness trope is one of them); and so does the truth of "There are concrete particular objects" (from the assumption that the rose exists and is a concrete particular object).

Despite their agreement on the relevant existential questions, however, the pure and the impure trope theorist nevertheless disagree on one very crucial point: whether they take tropes to be fundamental entities, relatively or absolutely, within their respective ontologies or whether they assign this role instead to the concrete particular objects which are the bearers of these tropes. And while they may not both explicitly use the language of fundamentality when they state their respective positions concerning the relation between a concrete particular object and a trope that inheres in it, I will offer a particular way below in which this notion may be understood in this context (namely in terms of a certain definition of ontological dependence) which allows us to see that the pure trope theorist affirms precisely what the impure trope theorist denies, and vice versa. Since their respective positions can be aptly characterized in terms of this single notion of fundamentality, the dispute between the pure and impure trope theorist should not strike us as one in which the engaged parties are simply talking past each other. If the characterization of the dispute in question I offer below is correct, then it seems that we are here dealing with an example of a dispute which has precisely the character of a substantive non-existential disagreement over a particular question

⁸ I intentionally did not include "accident" in the above list of ways in which particularized properties or individual qualities may be referred to, since I want to allow for the possibility that some tropes are essential to their bearers.

of fundamentality. Since it is not at all obvious how the Quinean or Carnapian conceptions of the study of being could accommodate the possibility and intelligibility of substantive non-existential disagreements in ontology over questions of fundamentality, the recognition of such disputes therefore bolsters the overall case for an alternative conception of the study of being, different from those put forth by Quine and Carnap or their more recent followers.

11.2.1 Pure trope theory

Keith Campbell, in *Abstract Particulars*, is a representative of what I call "pure trope theory" (Campbell 1990). For Campbell, basic tropes (i.e., tropes which are not complexes of other tropes) are particulars with a simple nature. For example, suppose the redness which inheres in a particular rose is a basic trope; then this redness trope, in Campbell's view, is not a complex consisting of a general qualitative nature (i.e., redness construed as a universal) and a particularizing principle of some sort (e.g., a substratum). Rather, the redness trope, for Campbell, is simply a particularized nature, a single item which has both its intrinsic qualitative nature and its particularity in a primitive underived manner. The rose, in contrast, and more generally the familiar concrete particular objects we encounter in ordinary experience, according to Campbell, are nothing more than bundles of compresent tropes, i.e., tropes that are present together with other tropes within a single region of space-time. Since, in Campbell's view, we can forego commitment to universals altogether, the framework he is offering is a *one-category ontology*, consisting of nothing but tropes and complexes of tropes.⁹

Campbell cites both negative and positive motivations for adopting trope theory. On the negative side, he argues that the alternatives to trope theory run into trouble of one sort or another. The primary contenders he considers are views according to which concrete particular objects are substances (and not mere bundles of properties) as well as views according to which properties are universals (and not particulars). I will not rehearse Campbell's arguments against these opposing views here, though we will have occasion to consider one such opposing view in more detail below when we turn to what I call "impure trope theory".

On the positive side, Campbell argues that all the work that needs to be done by an ontology can be done by trope theory. In particular, he puts tropes to work in the following ways. First, in Campbell's view, trope theory provides the best overall account of the objective similarities between concrete particulars objects. Since tropes resemble

⁹ Given Campbell's conception of concrete particular objects as complexes of tropes, his ontology also has to include some category (e.g., mereological sums) to which these bundles of compresent tropes are assigned. But I suspect that he would view the complexes of tropes which correspond to the concrete particular objects we encounter in ordinary experience in an ontologically lightweight way as not resulting in a genuine addition to his one-category ontology. It is certainly a legitimate question whether such an ontologically lightweight conception of trope bundles is in fact feasible; but I will not pursue this issue further in the present context.

each other in virtue of their intrinsic nature, intrinsically similar tropes (e.g., the redness tropes that are present in a red rose, a red fire truck, a red tomato and a red sunset) form resemblance classes. Second, Campbell utilizes tropes to provide an analysis of events: an event, in Campbell's view, consists in a change with respect to a property in one or more objects, i.e., a succession of tropes which are compresent with other tropes in a particular trope bundle. For example, the event which we might refer to as "the ripening of the tomato" consists in a succession of different color tropes that are present in the tomato, one after the other, beginning with a greenness trope and ending with a redness trope. Thirdly, Campbell takes tropes to be the relata of the causal relation. Thus, a certain process which we might normally describe as "the sun causing the tomato to ripen", for Campbell, really consists in the sun's heat trope, temperature trope, brightness trope, etc., causing the tomato's greenness trope to be replaced by other color-tropes in a succession of such replacements ending with a redness trope. Fourth, perception, in Campbell's view, is of particulars, i.e., tropes or bundles of tropes. When we perceive a rose for example, we are, for Campbell, perceiving a certain bundle of compresent tropes, e.g., the rose's redness, smell, shape, texture, etc. Fifth, ordinary predications (e.g., "The rose is red"), in Campbell's view, are to be analyzed as affirming that a trope of the kind referred to by the predicate term is compresent with or belongs to the complex of tropes referred to by the subject term.

Concerning the question of how tropes are to be individuated, Campbell has the following to say:

To preserve the simplicity of tropes, one must then affirm that their *individuation is basic and unanalysable*. That is, to the question: what is it about one F trope that makes it the F trope it is and not some other F trope? there can be only the uninformative, but true, answer: (not any feature, aspect or constituent of that F trope but) just being that F trope rather than any other. (Campbell 1990, 69)

In particular, tropes are not, for Campbell, individuated by the places they occupy; rather, places themselves, in his view, should be conceived of as tropes, so that the relation of compresence itself becomes the grouping together of some other tropes with a place trope. Campbell's conception of tropes as primitively self-individuating has the following interesting consequences which will become important below when we consider the central disagreement between pure and impure trope theory: for Campbell, tropes can migrate from one bearer to another (i.e., tropes are transferable); and, even more strongly, tropes can exist without any bearers at all (i.e., there can be free-floating tropes). For it is merely a contingent matter, in Campbell's view, not a matter of metaphysical necessity, that tropes occur in the compresent groups we recognize as the familiar concrete particular objects of ordinary experience.

11.2.2 Impure trope theory

Jonathan Lowe, in *The Four-Category Ontology*, is a proponent of what I call "impure trope theory" (Lowe 2006). Although Lowe, among other things, is committed to both

tropes and concrete particular objects as the bearers of these tropes, he does not take either category to be reducible to the other. In particular, concrete particular objects, in his view, are not to be thought of as mere complexes or bundles of compresent tropes.¹⁰

With respect to the roles occupied by tropes in this ontology, however, we observe large areas of agreement between Lowe and Campbell. First, tropes are needed, in Lowe's view, in order to give an adequate account of what it is that we experience through perception. When we perceive the tomato's redness, say, we are, in Lowe's view, perceiving a non-substantial particular, not a universal. Secondly, Lowe takes the entities that enter into causal relations or to which causal powers can be attributed to be particulars, and not universals. Thus, if the sun causes the tomato to ripen, the entities in question to which we are attributing causal powers and which appear as the relata of the causal relation (viz., the sun, the sun's heat, the tomato, the tomato's color, etc.) must be construed as particulars, rather than universals (e.g., heat as that which is shared by all and only hot particulars). Thirdly, Lowe appeals to tropes in his account of change: when we perceive that an individual substance (i.e., a substantial particular) undergoes change, the change in question concerns the non-substantial particulars by which the individual substance is characterized. Thus, when the tomato goes from being green to being red, for example, this change, in Lowe's view, consists in the tomato's first being characterized by a greenness trope and later by a redness trope. Fourth, according to Lowe, when we speak of properties being located, we can only have in mind the presence of non-substantial particulars (i.e., tropes) in substantial particulars; for to assume that universals are literally spatially located in particulars, Lowe argues, leads to incoherent results. Thus, if we take the tomato's redness for example to be present in the tomato, we must, in Lowe's view, be referring to the presence of a non-substantial particular (i.e., a trope) in a substantial particular (i.e., a concrete particular object). Fifth, tropes also play a role in Lowe's account of predication and the truth of propositions: when we say of a particular apple for example that it is round, what makes this predication true, according to Lowe, is that the apple in question is characterized by a roundness trope.

Nevertheless, despite the sizeable area of agreement which exists between Lowe and Campbell concerning the work that is to be done by tropes in their respective ontologies, the two could not be further apart when it comes to the question of how tropes

¹⁰ Lowe prefers to call tropes "non-substantial particulars", "property-instances", or "modes". He refers to what I have been calling "concrete particular objects" as "substantial particulars" or "individual substances". The relation, "being the bearer of", which obtains between concrete particular objects and tropes, in Lowe's system, is called "characterization". In addition to the two categories just mentioned (tropes and concrete particular objects), Lowe's four-category ontology also includes substantial universals ("kinds") and non-substantial universals (e.g., redness when conceived of as what is shared by the many red concrete particular objects). None of these categories, in Lowe's view, is reducible to the others. In what follows, I will not have much to say about the two universal categories, substantial kinds and non-substantial universals, since Lowe's conception of substantial and non-substantial particulars is most pertinent to the issues with which we are presently concerned.

and the concrete particular objects that are the bearers of these tropes are to be individuated:

Property-instances are ontologically dependent entities, depending for their existence and identity upon the individual substances which they characterise, or to which they "belong". A particular redness or squareness can, ultimately, be identified as the particular property-instance that it is only by reference to the individual substance which it characterises. This is not an epistemic point but a metaphysical one: it concerns individuation in the metaphysical rather than in the cognitive sense –that is, individuation as a determination relation between entities rather than individuation as a kind of cognitive achievement. And this is the reason why it makes no sense to suppose that particular property-instances could exist free-floating and unattached to any individual substance or migrate from one individual substance to another. (Lowe 2006, 27)

As comes out very clearly in this passage, Lowe denies precisely what Campbell affirms: that tropes are primitively self-individuating. For Lowe, tropes can only be individuated by way of the concrete particular objects that are their bearers. As a direct consequence of this central disagreement between these two theorists, Lowe also denies further claims which are affirmed by Campbell: in particular, that tropes can migrate from one bearer to another (i.e., that tropes are transferable); as well as the even stronger claim that there could be such things as free-floating tropes capable of existing without any association with a concrete particular object that is their bearer. In Lowe's view, it is not merely a contingent matter, but rather a matter of metaphysical necessity, that tropes must be compresent with other tropes in regions of space-time that are also occupied by concrete particular objects which are the bearers of these tropes.

11.2.3 Areas of agreement

We have noted that the pure and the impure trope theorists largely agree on the roles that are assigned to tropes in their respective ontologies. *Objective Similarity*. Both the pure and the impure trope theorist invoke tropes in their account of the objective similarities between concrete particular objects; both hold that tropes cannot be eliminated from one's ontology in favor of universals. *Events and Change*. Both take changes undergone by concrete particular objects to be analyzable in terms of the presence of a series of numerically and qualitatively distinct tropes that are associated with a concrete particular object at different times. *Causation*. Both take tropes to figure as the relata of causal relations or as that in virtue of which concrete particular objects can be said to have causal powers. *Perception*. Both hold that we perceive particular property-instances, rather than properties construed as universals. *Location*. Both hold that spatiotemporal location can be attributed coherently only to particulars. *Truth and Predication*. And, finally, both the pure and impure trope theorist employ tropes in their account of what makes true a basic proposition in which a property is attributed to a concrete particular object.

11.2.4 Areas of disagreement

At the same time, we have also observed that the pure and impure trope theorists disagree when it comes to the central question of how tropes and concrete particular objects are to be individuated.¹¹ We can formulate the crucial disagreement between the pure and impure trope theorist over the individuation of tropes and their bearers more precisely as follows. Since the impure trope theorist takes tropes to be individuated through their bearers, he will take on board something like the following:

(CTI) Criterion of Trope Identity:

A trope, x, and a trope, y, are numerically identical iff x and y are tropes of the same maximally specific kind and x and y have the same concrete particular object as their bearer.

A few clarificatory remarks concerning (CTI) are in order. First, I intend (CTI) to be read in such a way that only a single trope of each maximally specific kind (e.g., some specific shade of redness) inheres in a single concrete particular object at each time at which the object exemplifies the property in question. Secondly, the pure trope theorist may interpret the reference to concrete particular objects in (CTI) in terms of the compresence of tropes with other tropes in a particular trope bundle. Thirdly, in order to capture the impure trope theorist's conception of trope individuation fully, an asymmetric explanatory connective, such as "because" or "in virtue of", is needed in place of the symmetric "iff" which is currently the main connective of (CTI). I will take this explanatory asymmetry into account below. Fourth, I have in mind with (CTI) a criterion of identity which would apply to individuals across worlds, and not just contingently within a single world. This way of construing (CTI) will also be reflected in the definition of ontological dependence offered below. Fifth, when we add time into the picture, (CTI) can be interpreted either as a synchronic or as a diachronic criterion of trope identity as follows:

(SCTI) Synchronic Criterion of Trope Identity:

A trope, x, and a trope, y, are numerically identical at a single time t iff x and y are tropes of the same maximally specific kind and x and y at t have the same concrete particular object as their bearer.

(DCTI) Diachronic Criterion of Trope Identity:

A trope, x, which exists at a time t_1 , and a trope, y, which exists at a distinct time t_2 , are numerically identical iff x and y are tropes of the same maximally specific kind and x at t_1 has the same concrete particular object as its bearer as y at t_2 .

While I take (CTI), when interpreted as either (SCTI) or (DCTI), to describe the impure trope theorist's commitments concerning the individuation of tropes relative

¹¹ The question of whether migrating or free-floating tropes are metaphysically possible is also discussed in connection with the doctrine of transubstantiation; see for example Pawl (2012).

to their bearers, the pure trope theorist could instead accept something like the following as a criterion of identity governing concrete particular objects:

(CBI) Criterion of Bearer Identity:

A concrete particular object, x, and a concrete particular object, y, are numerically identical iff the tropes that are compresent with x are numerically identical to the tropes that are compresent with y.

Again, (CBI) is amenable to either a synchronic or a diachronic construal, once it is relativized to time. I take it that Campbell would at least accept the synchronic version of (CBI). How he feels about the diachronic version of (CBI) would depend on whether he wants to allow that the concrete particular objects we encounter in ordinary experience can themselves persist through change strictly and literally speaking or whether each such ordinary concrete particular object in effect corresponds to a series of numerically distinct trope complexes.

With (CTI) and (CBI) in mind, we are now in a position to define the following notion of ontological dependence:

(EID) Essential Identity Dependence:

x is essentially identity dependent on $y \equiv_{def} it$ is essential to x that x's numerical identity is determined by some relation x bears to y.¹²

I intend the phrase "x's numerical identity is determined by some relation x bears to y" to be understood, for the particular case of tropes and their bearers, in accordance with (CTI) or (CBI), read synchronically or diachronically. More generally, an entity, x, is to be classified as essentially identity dependent on a numerically distinct entity, y, just in case a criterion of identity for entities of the kind to which x belongs makes reference to some relation they essentially bear to entities of the kind to which y belongs.

¹² I assume for the purposes at hand that (EID) requires the entities, x and y, to be numerically distinct. The occurrence of "is determined by" on the right hand side of (EID) is intended to reflect the explanatory asymmetry referred to above. The requirement that the condition mentioned on the right hand side of (EID) is to hold of x essentially is intended to rule out a merely contingent construal of the criteria of identity in question as holding only within a given world. (EID) is modeled after a definition of ontological dependence given by Lowe under the same name, "essential identity dependence". Lowe's definition contains additional technical vocabulary (e.g., he speaks of criteria of identity as functions and of something's being part of the essence of something else), which I have left out here in order to be able to capture the disagreement between the pure and the impure trope theorist in terms that are as neutral as possible. As we will discover below, trope individuation is not the only issue over which the pure and the impure trope theorist disagree: another deep division between them arises from their respective conceptions of essence and modality. This further dispute between the pure and the impure trope theorist has repercussions on how they each interpret the right-hand side of (EID) in a way that is compatible with their other commitments. I hope, however, that the formulation of (EID) I have given here nevertheless captures the spirit behind Lowe's notion of essential identity dependence. For Lowe's most up-to-date views concerning ontological dependence, see Lowe (2006), (2008), (2012), (2013); as well as Tahko and Lowe (2015). For discussions of ontological dependence in his earlier work, see Lowe (1994), (1998). Also relevant are his views concerning criteria of identity which are inspired by Frege (1953); see for example Lowe (1989), (1997), (2009). I have discussed Lowe's notion of essential identity dependence as well as other definitions of ontological dependence in more detail elsewhere (see Koslicki (2012a), (2012b), (2013a), (2013b)).

Given this apparatus, we can now capture the central disagreement between the pure and the impure trope theorist as follows. A pure trope theorist of Campbell's persuasion denies that tropes are essentially identity dependent on their bearers (if they even have bearers); instead, he takes the bearers of these tropes to be essentially identity dependent on the tropes that are associated with them. For, in Campbell's view, for any given concrete particular object, x, x's identity at each time at which it exists and possibly also x's identity over time, is fixed by a relation x bears essentially to the tropes that are associated with x at a particular time or over time (e.g., the being-characterized-by relation). But the identity of the tropes which find themselves in a particular trope bundle, for Campbell, is not similarly fixed by the identity of the concrete particular object which is identified with the trope bundle in question.

In contrast, an impure trope theorist, such as Lowe, arrives at exactly the opposite position concerning trope individuation: he affirms that tropes are essentially identity dependent on their bearers and denies that the concrete particular objects which are the bearers of these tropes are essentially identity dependent on the tropes that are associated with them. For, according to Lowe, for any given trope, x, x's identity at each time at which x exists, as well as x's identity over time, is fixed by a relation x essentially bears to the numerically distinct concrete particular object, y, that is x's bearer, namely the characterizing relation. But the reverse is not the case, in Lowe's view: the numerical identity of a concrete particular object is not fixed by some relation it essentially bears to the tropes that are present in it.

It immediately follows from the pure and impure trope theorist's respective commitments concerning the relative fundamentality or derivativeness of tropes compared to their bearers that they must also adopt a certain stance towards two related claims considered earlier: whether it is metaphysically possible for tropes to migrate from one bearer to another (i.e., whether tropes are transferable); and whether it is metaphysically possible for tropes to occur without the accompaniment of any bearers at all (i.e., whether tropes can be free-floating). Since, for Lowe, a given trope is essentially identity dependent on the concrete particular object that is its bearer, it is a direct consequence of his position that a trope can exist only if the concrete particular object that is its bearer exists and hence, more generally, that tropes can exist only if some concrete particular objects or other exist as well. Given his commitments, Lowe must therefore deny that migrating tropes and free-floating tropes are metaphysically possible. In contrast, since Campbell does not take tropes to be essentially identity dependent on their bearers, he is free to allow for the possibility of migrating or free-floating tropes. Given (EID) and the associated criteria of identity for tropes and their bearers stated in (CTI) and (CBI), we can thus see that the pure and the impure trope theorist's position concerning the individuation of tropes relative to their bearers comes as a package deal with their respective attitudes towards the (alleged) metaphysical possibility of migrating or free-floating tropes.

In addition to these diverging judgments concerning the *relative* fundamentality status of tropes and their bearers, the pure and the impure trope theorist also reach opposite conclusions when it comes to the corresponding claims concerning the *absolute* fundamentality of tropes or their bearers.¹³ Suppose that an entity, x, is (EID)-*in*dependent just in case there is no other entity, y, numerically distinct from x, on which x is (EID)-dependent. We may then define the following notion of absolute (EID)-fundamentality:

(FUND) Absolute (EID)-Fundamentality:

x is absolutely (EID)-fundamental $\equiv_{def} x$ is (EID)-*in*dependent: there is no entity, y, numerically distinct from x, such that x is (EID)-dependent on y.

Besides their disagreement over the relative fundamentality judgments stated above, Campbell and Lowe also take opposite sides on whether (FUND) correctly applies to tropes or concrete particular objects. For while Campbell endorses (FUND) for tropes but not for concrete particular objects, Lowe accepts (FUND) for concrete particular objects but not for tropes. Thus, a pure trope theorist of Campbell's persuasion takes tropes not only to be more fundamental than their bearers, in the sense specified by (EID); he also takes them to be *absolutely* (EID)-fundamental, since, in his view, tropes are primitively self-individuating. According to Campbell, for any given trope, x, there is no entity, y, numerically distinct from x (e.g., the concrete particular object that is the bearer of the trope in question), such that x is the very object that it is because of some relation it essentially bears to y (e.g., the characterizing relation). That tropes are the very entities that they are at each time at which they exist, as well as over time, is simply taken to be a non-derivative fact about them, according to the pure trope theorist. In contrast, Lowe's impure trope theory is one according to which (FUND) is false for tropes but true for concrete particular objects. According to Lowe, for any concrete particular object, x, there is no entity, y, numerically distinct from x, such that x's numerical identity is fixed by some relation x essentially bears to y. Thus, Lowe takes concrete particular objects to be not only *more fundamental than* the tropes that are present in them, in the sense specified by (EID); he also accepts, unlike Campbell, that concrete particular objects are primitively self-individuating and hence absolutely (EID)-fundamental. Campbell and Lowe thus reach opposite conclusions concerning both the relative and the absolute fundamentality status of tropes compared to the

¹³ It should be noted, however, that the pure and impure trope theorist's position concerning the absolute fundamentality of tropes or their bearers is separable from the relative fundamentality judgments they each endorse respectively. These absolute fundamentality judgments present additional, optional, commitments on the part of the pure and impure trope theorist which are not immediately required or entailed by their respective positions concerning the relative fundamentality or derivativeness of tropes compared to their bearers. However, the reverse entailment does hold: the pure trope theorist's stance concerning the absolute fundamentality of tropes does of course entail that they are also *more fundamental than* their bearers; and it similarly follows from the impure trope theorist's position concerning the absolute fundamentality of concrete particular objects that these entities are also *more fundamental than* the tropes that are affiliated with them.

concrete particular objects which are the bearers of these tropes. At the same time, since the pure and the impure trope theorist, as we noted above, agree on the relevant existential questions, "Are there tropes?" and "Are there concrete particular objects?", their dispute cannot be characterized as a purely existential disagreement which would be amenable to a Carnapian or Quinean approach to ontology.

11.3 Migrating or Free-Floating Tropes?

We have seen above that the pure and the impure trope theorist disagree precisely on whether or not the individuation of tropes or concrete particular objects is parasitic on the identity of a numerically distinct entity. Depending on where a particular trope theorist stands on this question, it will also then, as a direct consequence, turn out to be either metaphysically possible or metaphysically impossible for a trope to migrate to a different bearer or to exist in a free-floating fashion without any bearer at all. It is instructive to examine more closely how the pure and impure trope theorist approach these alleged metaphysical possibilities or impossibilities, especially with an eye to how the disagreements in question would be characterized through the lens of a Quinean or Carnapian conception of ontology.

11.3.1 The alleged possibility of migrating tropes

Smith (1982) takes as his motto a passage from the nineteenth-century novel I Promessi Sposi by the Italian writer Alessandro Manzoni, in which (loosely paraphrased) the question is raised of how there can even be such a thing as contagion, since a disease that is spread around through infection apparently cannot be coherently conceived of as either a substance or an attribute; and, so the thought goes, there are no other options. The latter possibility of conceiving of contagion as an attribute is ruled out by appeal to the assumption that attributes, which are here taken to be tropes, are non-transferable and thus contagion, if it were an attribute, could not migrate from one substance to another. (The option that contagion may be a substance is ruled out on other grounds.) But given what we now know about the mechanisms underlying the spread of disease, the impure trope theorist can rest assured that, instead of having to reject all of modern-day medicine as being based on a metaphysical mistake, he may avail himself of a conception of contagion which does not need to lean on the hypothesis that tropes are transferable. For empirical investigation has led to the discovery that, when a disease spreads through infection, it is in fact concrete particular objects after all (e.g., viruses, bacteria, and the like) which migrate from one "host" to another.

We encounter additional apparent support for the thesis that tropes are transferable in cases discussed in Levinson (1980), Lehrer and McGee (1992), and Schnieder (2004). To illustrate, consider an apple which is red on the outside and white on the inside. Suppose that the apple is peeled and is now white on the outside. What has happened to the redness trope which seemed previously to reside in the apple? Has one and the same redness trope, as a result of the peeling, migrated away from its previous bearer?

Cases of material constitution might also be interpreted as favoring the thesis that tropes are transferable. Suppose that a statue and the clay which constitutes it are numerically distinct spatiotemporally coincident objects, as some hold. Suppose further that the clay, which we may assume to have already existed prior to the creation of the statue, weighed 1 kg before the statue came into existence and that nothing is removed or added from the clay during the process of creating the statue. In that case, of course, the clay will continue to weigh 1 kg, once it has come to constitute the statue, and the statue will now weigh 1 kg as well. Has the clay's weight trope, during the process of creating the statue, somehow migrated to a numerically distinct bearer, viz., the statue it now constitutes?

If the impure trope theorist is willing to entertain the possibility that tropes may be shared between numerically distinct concrete particular objects, as long as these objects are related in a particularly intimate fashion which entails either complete or at least partial spatiotemporal overlap, e.g., by way of parthood or constitution, then he can make sense of what goes on in both of these scenarios without threatening his commitment to the non-transferability of tropes. Following this line of reasoning, it is open to the impure trope theorist to react to the first scenario by taking the redness trope to have resided in the apple's skin all along and to have simply been "borrowed" by the apple for a period of time while the apple had the skin as a part. Similarly, in cases of material constitution, the impure trope theorist may adopt the position that the statue inherits its weight from whatever constitutes it at any given time, assuming of course that he does not already reject the possibility of numerically distinct spatiotemporally coincident objects or finds another dialectical place at which to dig in his heels.

In addition to allowing the impure trope theorist to uphold his commitment to the non-transferability of tropes, the trope-sharing strategy also conveniently affords him with an elegant solution to the problem of "double counting". As we all know, the statue and the clay together only weigh whatever the clay by itself would weigh as well, even if it did not constitute a statue, namely, in the case of our present example, 1 kg. If the statue and the clay each had their very own 1 kg weight trope, then one might indeed wonder why the scale does not indicate 2 kg, when two numerically distinct objects (the statue and the clay) are simultaneously placed on it, each with its very own 1 kg weight trope. The impure trope theorist may sidestep this worry by adopting the trope-sharing strategy and thus cite independent reasons for this move, not directly connected to the question presently at issue of whether migrating tropes are genuinely metaphysically possible.¹⁴

¹⁴ The trope-sharing proposal just discussed is merely intended to provide the impure trope theorist with a starting point for a strategy he may wish to explore further in order to address scenarios such as those cited in Section 11.3.1 which might be thought to involve trope migration. It is of course not plausible to think that wholes borrow all of the tropes that are associated with their proper parts. Therefore, in order

11.3.2 The alleged possibility of free-floating tropes

The different attitudes taken by the pure and impure trope theorist towards the individuation of tropes relative to their bearers come out in their starkest form when we consider the question of whether free-floating tropes, i.e., tropes which are capable of existing without any association with a concrete particular object that is their bearer, are genuinely metaphysically possible. In the event that the pure trope theorist could somehow present us with a scenario which can only be adequately interpreted on the assumption that free-floating tropes are metaphysically possible, such a circumstance would of course spell trouble for the impure trope theorist, unless he can find some wiggle-room somewhere. The individuation of such alleged "solo" tropes, after all, could not very well be in any way parasitic on the identity of any concrete particular objects which are their bearers, since, by hypothesis, they have none.¹⁵

Here is how the possibility of apparently unaccompanied tropes might be motivated from Campbell's point of view. He takes the actual world to be constructed out of, or analyzed in terms of, an extremely sparse array of basic tropes towards which, for a variety of reasons, he adopts a field-theoretic, as opposed to an atomistic, approach. On this picture, all of space-time turns out to be a single trope, the "biggest" one there is, spread out over the entire cosmos. The other basic tropes, on this account, are themselves regarded as "space-filling fields" which permeate the cosmos by distributing some quantity in varying degrees of intensity across it:

Taking our clue from space-time itself, we now propose that all the basic tropes are partless and edgeless in the ways that space is, and that they change only in space-time's innocent way. All basic tropes are space-filling fields, each one of them distributes some quantity, in perhaps varying intensities, across all of space-time. What are the plausible candidates for such cosmos-filling basic tropes? The ones that spring to mind first are those we already think of as having field characteristics, the fundamental forces recognised in contemporary physics. So we

for the strategy outlined here to be successful, the impure trope theorist would need to propose a non-adhoc method of delineating those tropes which a whole shares with its proper parts from those to which the trope-sharing strategy does not apply (e.g., the temporal or modal tropes). As the voluminous literature on the problem of material constitution attests, much more would need to be said in this connection in order to spell out the strategy at hand more fully. However, some version of the challenge at hand arises for many other approaches to the problem of material constitution as well and is not specific to the trope-theoretic treatment. I will not attempt to develop a more detailed treatment of these issues on behalf of the impure trope theorist in the present context.

¹⁵ Cases which crop up in the literature on events are also of relevance here, especially considering Campbell's and Lowe's sympathy towards an analysis of events and change in terms of successions of numerically and qualitatively distinct tropes. For example, Cleland (1991), siding with the pure trope theorist, cites the following as evidence for thinking that the individuation of events does not always require reference to concrete particular objects which are their bearers: shrieks, flashes, desires, fluctuations in gravitational and electromagnetic fields as well as the disembodied melodies, booms, bangs, etc., we encounter in Strawson's "Auditory World" (Cleland 1991, 230–1; Strawson (1993), especially pp. 75–7). For reasons of space, I concentrate in what follows on the way in which we are confronted with the alleged possibility of free-floating tropes in Campbell's system.

postulate superimposed fields for gravitation, electromagnetism, the weak and the strong nuclear forces. (Campbell 1990, 146)

But whether these cosmos-filling superimposed basic tropes distribute quantities across space-time in such a way as to give rise to the familiar concrete particular objects we encounter in ordinary experience is, for Campbell, a purely contingent matter. Consequently, he would see no metaphysical obstacles standing in the way of a possible distribution of basic tropes across space-time which does *not* give rise to the familiar concrete particular objects we encounter in ordinary experience. In order to illustrate what such a possible distribution might look like, I will assume, for the sake of specificity, that the basic tropes include charge, mass, and spin. Campbell's commitments now leave room for the possibility of a universe which lacks the familiar concrete particular objects of ordinary experience, but in which nevertheless charge, for example, is present in a particular region of space-time with a non-zero degree of intensity, while the quantities associated with the other basic tropes, e.g., mass and spin, take on a zero degree of intensity in the region of space-time under consideration.

Does the scenario just described, assuming for a moment that it is metaphysically possible, present us with evidence in favor of a free-floating charge trope? The impure trope theorist may, with some justification, harbor doubts as to whether it in fact does. Due to the peculiarities of Campbell's field-theoretic approach, neither the charge, which we imagined above as being exemplified in the region of space-time in question in an apparently unaccompanied fashion, nor the region of space-time itself can be regarded as a full-fledged particular, since, for Campbell, cosmos-permeating fields lack genuine parts:

And space-time has no true parts. For simplicity's sake, let us consider space alone. The subdivisions of space are not parts from which it is built. They cannot exist independently of the whole and then be assembled into more and more inclusive structures. They cannot, of course, be moved about to join in forming wholes, nor can they be selectively abolished. If there cannot be a hole in space, there cannot be a true part where the hole cannot be. Space has merely quasi-parts. They belong to space as vortices and eddies belong to a flowing river; the quasi-parts of space, unlike real parts, depend on the whole for their existence, and not vice versa. (Campbell 1990, 145)

As this passage brings out, Campbell adopts a truly monistic attitude towards his cosmos-permeating basic tropes, according to which regions of space-time are thought of as belonging to the one and only space-time trope only as "vortices and eddies belong to a flowing river", as "quasi-parts", but not as "true parts". Similarly for the charge exemplified in a certain region of space-time, which would, on his view, have to be regarded not as a genuine part, but only as a "quasi-part", of the one and only cosmos-filling charge trope.

If regions of space-time and the charges that are exemplified within them do not qualify as fully individuated entities, by Campbell's lights, they also pose no real threat

to the impure trope theorist's commitment to the impossibility of free-floating tropes. Given Campbell's field-theoretic monism, the only genuine particulars he would acknowledge in the scenario described above are the cosmos-permeating basic tropes themselves, and these of course cannot be considered free-floating, since they are compresent with each other and together form the cosmos. This opens the door for the impure trope theorist to recognize at least one gigantic concrete particular object in the scenario just outlined, which may act as the bearer and potential individuator of Campbell's limited array of basic tropes: the cosmos itself. And, hard as we may try, there is of course no thought-experiment we can design in which the cosmos is somehow separated from the basic tropes that are exemplified within it.

So far, the impure trope theorist may thus avail himself of various maneuvers in his attempt to avert the threat of having to entertain seriously the alleged possibility of free-floating tropes. But he is not completely out of the danger zone yet. For perhaps the most serious challenge to the impure trope theorist's prohibition against free-floating tropes comes from an atomistic version of the scenario described above. Thus, putting Campbell's field-theoretic monism aside for a moment, we may reconceptualize the alleged possibility in question as involving at least one basic atomic charge trope, or a multitude thereof, occurring in a region of space-time apparently unaccompanied by other basic atomic tropes, such as spin or mass, or by any concrete particular object, such as an elementary particle, which could act as the bearer and candidate principle of individuation for these basic atomic charge tropes. If such a scenario is in fact metaphysically possible, it is difficult to see how one could make sense of it without invoking free-floating charge tropes.

When faced with the atomistic version of the alleged free-floating trope scenario, I finally see no other choice for the impure trope theorist but to insist that the words which were used in describing this scenario do not in fact succeed in singling out a genuine metaphysical possibility. At this point, we may appear to have reached a dialectical dead end in the disagreement between the pure and the impure trope theorist. But really their head-on collision over the possibility of free-floating tropes, if we were to trace its course further, would now only lead us to a another fundamental difference between them, which I have so far done my best to keep in the background: their respective Humean or anti-Humean stance towards modality and the laws of nature. In this vein, Lowe combines his impure trope theory with a hyper-robust anti-skeptical conception of *de re* modality as grounded in essence, together with an anti-reductionist account of the laws of nature as involving relations among universals. Campbell's pure trope theory, in contrast, is Humean through and through, in its preference for regularities, contingent patterns, and constant conjunctions among particulars only.

Once their respective Humeanism and anti-Humeanism is on the table, the discussion between the pure and impure trope theorist will no doubt shift to a whole new set of questions. The impure trope theorist may cite as an apparent consideration in his favor that, unlike his opponent, he has a metaphysical explanation for why, in our past and present experience up to this point, we have apparently not encountered free-floating charge tropes and why furthermore the idea of a charge which is not the charge *of* anything also runs counter to what our best scientific theories teach us. The pure trope theorist, in contrast, may caution us not to get overly carried away by such findings, since, for him, they may after all only report a cosmic accident on a grand scale. The Humean does not see why such phenomena would ever require a metaphysical explanation; nor would he deem such an alleged metaphysical explanation satisfying, especially when, contrary to Hume's Dictum, it requires appealing to necessary connections between distinct existences: a metaphysical fiction *par excellence*, if ever there was one, in the eyes of the Humean.¹⁶

11.4 Conclusion

In this chapter, I have focused on a central disagreement between the pure and the impure trope theorist over trope individuation, in an attempt to motivate a conception of the study of being which goes beyond the boundaries of what is permissible or sensible from a Quinean or Carnapian perspective. In my view, we fail to do justice to the disagreement between the pure and the impure trope theorist, as long as we confine ourselves to a purely existential understanding of what is at issue between them, as concerning the questions, "Are there tropes?" and "Are there concrete particulars objects?". For whether we read these questions in the Carnapian internal or external style, we will find that both philosophers answer them affirmatively. Both accept a framework which commits them to the existence of tropes as well as concrete particular objects; and both accept that, in ordinary experience, e.g., when faced with a particular red rose, we encounter tropes as well as concrete particular objects in which these tropes are present. The pure and impure trope theorist furthermore largely agree on how to justify the expedience, fruitfulness, and conduciveness of a trope-theoretic framework with respect to the explanatory purposes at hand, since both invoke tropes in their account of the objective similarities between concrete particular objects, events and change, perception, causation, spatiotemporal location, and the truth of propositions.

Nevertheless, on my reading, the pure and impure trope theorist occupy opposing positions when it comes to the question of whether tropes qualify as relatively or absolutely fundamental entities within their respective ontologies or whether instead it is the concrete particular objects that are the bearers of these tropes which are assigned this role. According to the construal I have offered in this chapter, the disagreement between the pure and the impure trope theorist can be adequately captured by focusing on whether or not they take tropes or their bearers to be essentially identity dependent on any other entity numerically distinct from themselves. Since, for the pure trope theorist, tropes are primitively self-individuating, their numerical identity

¹⁶ The connection between Hume's Dictum and the alleged possibility of migrating or free-floating tropes is also discussed in Cameron (2006) and Saenz (2012).

is not parasitic on that of their bearers or any other entity numerically distinct from themselves. The impure trope theorist, in contrast, accepts the numerical identity of concrete particular objects as a basic non-derivative fact about them and instead views the numerical identity of tropes as parasitic on that of their bearers. As a direct consequence of this central difference between them, the pure trope theorist has the option of allowing for the possibility of migrating or free-floating tropes, while the impure trope theorist is required to analyze any scenario which allegedly illustrates such possibilities in a way that is compatible with his commitment to the metaphysical impossibility of migrating or free-floating tropes.

The pure and impure trope theorist's reactions to these alleged possibilities, when followed to their natural conclusion, reveal a further chasm between them: their respective Humeanism or anti-Humeanism concerning modality and the laws of nature. Although I did not try to argue for this further claim here, this additional crucial difference in their outlook also strikes me as a particularly clear and interesting example of a substantive non-existential disagreement over a particular question of fundamentality which deserves to be addressed on its own merits. If the study of being is not exhausted by the study of existence, then we also should not expect any single piece of apparatus which is designed specifically to deal with existential disputes (e.g., a certain treatment of the existential quantifier) to show in one fell swoop that all metaphysical disputes are merely verbal. While some metaphysical disputes may of course turn out to be non-substantive, which of them do and why must be established individually by carefully examining what exactly is at stake between two particular disputants. In the meantime, though, our discussion has brought out that essentialist construals of ontological dependence prove to be a helpful device in approaching particular instances in which we encounter apparently substantive non-existential disagreements in ontology over questions of relative or absolute fundamentality.

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