Ontological Pragmatism

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Dedicated in loving memory of my father.
Direct and succinct.
Thanks for inviting me to the party.

I

Overview

This thesis is a work in *metaontology*. Ontology is the study of what exists. It asks questions like 'Do numbers exist?'; 'Do composite objects like tables exist?'; 'Do properties exist?' Metaontology is the study of ontology. It asks questions like 'What is it to *say* that something exists?' and 'Is it even possible to answer ontological questions at all?'

This thesis centres around a core debate in metaontology: whether or not ontological debates themselves are, in some sense, *misguided*. The status of ontology has been the subject of scrutiny throughout philosophical history. Ontology — and metaphysics more generally — has been suspect at least since Hume urged us to commit much of it 'to the flames' (1777: 166). Later on, attitudes towards ontology reached a new low when the logical positivists claimed it was a literally '*meaningless*' enterprise (Carnap, 1932: 60).

However, things changed during the second-half of the twentieth century. Largely inspired by Quine (1948), philosophers began to work under the assumption that there are, in fact, deep and often surprising answers to ontological questions. According to this new breed of metaphysicians, ontological questions are to be answered by devising systematic theories of the world, comparing these theories in light of broad theoretical virtues like simplicity and explanatory power, and figuring out what needs to be assumed to exist in order for our favourite theory to be true. This new way of thinking about ontology allowed debates over the existence of numbers, composite objects, properties, and other entities to flourish in recent decades. The result was that past scepticism towards

ontology began to look like a distant memory. Optimism about ontology became the new status-quo.

However, today sceptical attitudes towards ontology are making a comeback. Many now adopt a 'deflationary' attitude towards ontology, claiming that debates over what exists are either 'merely verbal' (Hirsch, 2011) or 'easily' resolvable (Thomasson, 2015) in such a way that existence questions cannot be the locus of serious philosophical debate. *In this thesis, I want to contribute to this resurgent scepticism towards ontology from a distinctively pragmatist perspective. In effect, my goal is to develop, motivate, and explore what might be called a pragmatist metaontology — a view I call 'ontological pragmatism'.*

Thinking about pragmatism within the context of contemporary metaontology is interesting because, historically, scepticism towards ontology hasn't been restricted to Humean empiricism and logical positivism alone. Instead, it has also been a key theme running through pragmatism itself. For example, the early American pragmatist, John Dewey, claimed that it was 'self-contradictory for an instrumentalist pragmatism to set up claims to supplying a metaphysics or ontology'; instead, pragmatism was to 'render nugatory any wholesale inquires into the nature of being' (1910: 479). Likewise, Richard Rorty claimed that pragmatism leads to the idea that 'there is no need to worry about what sort of reality, if any, a given sentence corresponds to — no need to worry about what 'makes' it true' (1982: 7). And in his entry on 'neo-pragmatism' in the *Cambridge Dictionary of Philosophy*, David Macarthur states that 'beyond the question of ontological commitment, there is deep scepticism about the possibility of Ontology understood as the theory of the fundamental categories of things' (2015: 1001).

Why is there such scepticism towards ontology amongst pragmatists? In many ways this is because of what we might take to be their animating idea: that in order to illuminate some initially philosophically problematic term or concept, we should examine the *use and function* of the term or concept within our own practical lives, rather than the state of the *world* that the term or concept *represents*. Thus pragmatists draw a *contrast* between theorising about the fundamental nature of reality and theorising about the practical use and function of our words and concepts. And the pragmatist recommends that the most viable strategy is the latter, rather than the former.

The view I want to explore employs this broad pragmatist idea and directs it at our practice of asking and answering *existence questions* themselves. Thus I'll be concerned

with questions like 'What is the use and function of 'exists'?', 'How do we end up making claims about the existence of numbers or other entities?', and 'What is the practical point of doing so?' In addition, I'll be asking these questions within the context of contemporary debates in metaontology. In fact, one of my core claims will be that, in asking these kinds of questions, we'll be able to see that pragmatists are entitled to a popular deflationary account of ontology — one which claims that ontological questions are *so easy to answer* that many recent ontological debates rest upon a mistake. Such a position was originally defended by Carnap (1950/56) and now is most prominently defended by Amie L. Thomasson (2015) under the heading 'easy ontology'. Much of this thesis then explores this explicitly pragmatist version of easy ontology by motivating it, defending it, and drawing out some of its consequences.

Here's how this thesis goes. In chapter 2 I lay out the philosophical landscape within which this work takes place by characterising two opposing metaontological camps: on the one hand, the dominant understanding of how to answer existence questions in contemporary metaphysics — a view I call 'mainstream ontology' — and, on the other, its easy ontological rival. I then present some reasons for thinking that there are good prospects and motivations for exploring the idea that pragmatism and easy ontology might be usefully put together.

In chapter 3 I draw out the sense in which pragmatism and easy ontology are working two sides of the same street by developing the position I call 'ontological pragmatism' and by showing how such a view can undermine mainstream ontology. To do this, I argue that Amie Thomasson's version of easy ontology may be employed to construct an explicitly pragmatist account of how existence questions might be answered. I then argue that such a view can be used to show that mainstream ontology rests upon a mistake.

In chapter 4 I move on to argue that ontological pragmatism is a *plausible* position for pragmatists and others to endorse. To do this, I provide some motivations for endorsing ontological pragmatism over mainstream ontology. In addition, I argue that a number of *prima facie* objections to the view can be overcome.

In chapter 5 I apply ontological pragmatism to debates over the existence of numbers by comparing the view to Stephen Yablo's (2000; 2002; 2005) popular fictionalist account of mathematics. I'll argue that the pragmatist about mathematics does a better job of accounting for our actual mathematical practice than its fictionalist rival, thereby estab-

lishing that pragmatist approaches to mathematics ought to be seen as a new live option in the philosophy of mathematics.

Finally, in chapter 6, I use ontological pragmatism to respond to Ted Sider's (2009; 2011) influential idea that we may revive mainstream ontological debates by employing a privileged meaning of the existential quantifier said to 'carve nature at its joints'. I focus on Sider's indispensability argument to the effect that there must be some such quantifier, but argue that quantifiers are merely *pragmatically* indispensable for us, given our human limitations. This undercuts Sider's 'best argument' (2011: 188) for the idea that quantifiers can carve perfectly at the joints.

I then conclude the thesis by highlighting some further lines of inquiry resulting from undertaking this project. Thus, by the end of the thesis, I'll have (1) developed a distinctively pragmatist metaontology, (2) motivated it over the dominant conception of how to answer existence questions in analytic metaphysics, (3) defended the view from initial objections, (4) applied the view to particular ontological debates — most prominently to those in the philosophy of mathematics, and (5) shown how the view can defuse the idea that there is a metaphysically privileged meaning of 'exists' from which mainstream ontological debates may still be conducted. By doing all that, I hope to advance the project of giving pragmatists their own metaontology which may be fruitfully deployed in future ontological and metaontological discussions.

2

The Metaontological Landscape

2.1   What's this about?

To keep my main objectives in mind, I'll start with a 'snapshot' picture of the thesis as a whole.

> Snapshot: The goal of this thesis is to develop a *pragmatist metaontology*
> — a pragmatist account of how existence questions might be answered. In
> particular, I'll argue that pragmatists are entitled to a popular 'deflationary'
> account of how to handle existence questions: one which claims that they are
> *so easy to answer* that many recent ontological debates — over the existence
> of numbers, ordinary objects, properties, and other entities — rest upon a
> mistake. I call the resulting position 'ontological pragmatism'. To bolster the
> view, I'll attempt to show that ontological pragmatism is a plausible alter-
> native to the usual attempts to answer existence questions in recent analytic
> metaphysics. In addition, I'll draw out some consequences of endorsing the
> view — in particular by applying it to debates in the philosophy of mathe-
> matics and to those over whether or not there's a 'metaphysically privileged'
> meaning of 'exists'.

That's the snapshot. However, in order to truly understand any snapshot picture, we're going to need a broader understanding of the context in which it was taken. Thus

the goal of this chapter is to set the scene: to provide a description of the metaontological landscape within which this work takes place, and to explain why putting ontological pragmatism on the map is a philosophically interesting project.

Here's how this chapter goes. I'll begin by explaining what I mean by 'ontology' and 'metaontology', respectively. From there, I'll be in a position to provide the background knowledge necessary to see what's at stake in these areas. In particular, I'll provide a characterisation of two opposing metaontological camps and detail their main points of contention. As we'll see, ontological pragmatism will side with one camp and take the other as its primary opposition.

The opposition is the 'status quo' or 'establishment' position — a metaontological view I call 'mainstream ontology'.[1] This has been the dominant conception of how to do ontology in recent analytic metaphysics. However, while there are plenty of examples of mainstream ontology in the literature, general characterisations of the view are underdeveloped. I'll therefore spend some time going over paradigm examples and textual evidence to provide some *sufficient* conditions for counting as a mainstream ontologist.

With mainstream ontology on the table, I'll then describe the kind of metaontological camp my pragmatist sides with. This second camp is part of a recent resurgence of interest in 'deflationary' metaontological positions: those which claim that mainstream ontological debates are, in some sense, misguided. While there are many versions of deflationism, in this sense, I will focus on one: a view going under the heading 'easy ontology'. Roughly, according to easy ontologists, ontological questions are *so easy to answer* that there's no reason to engage in mainstream ontological debates. To highlight what this view amounts to and the points of contention between it and mainstream ontology, I'll trace it's roots back to Carnap (1950/56) and describe the main contours of the contemporary position.

As indicated in the snapshot, one of the main goals of the thesis is to bring pragmatism and easy ontology *together*. Thus, with easy ontology on the table, the last part of this chapter will explain what I mean by 'pragmatism' and describe some initial threads running between pragmatism and easy ontology. As we'll see, two themes running through both views are (1) a general scepticism towards what normally passes for 'ontology' and (2) an interest in theorising about the ways in which speakers *use* language. With these broad similarities in view, I'll finish by reflecting on why we might be interested in bringing these

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[1]My terminology coincides with David Manley's 'mainstream metaphysics' (2009: 4).

positions together. This will set us up for the next chapter which develops the position at the heart of this thesis: ontological pragmatism.

2.2   Ontology

Biology studies living organisms; physics studies atoms and quarks; mathematics studies numbers and sets; and in our everyday lives we inquire about ordinary objects like baseballs and balloons. Thus many areas of inquiry are concerned with studying various kinds of objects. When we study ontology we ask whether or not *any of these kinds of entities exist at all.*

To get a handle on this, we might characterise ontology the way Quine did in his classic paper 'On What There Is' (1948). Here's Quine's statement of 'the ontological problem':

> A curious thing about the ontological problem is its simplicity. It can be put in three Anglo-Saxon monosyllables: 'What is there?' It can be answered, moreover, in a word — 'Everything' — and everyone will accept this answer as true. However, this is merely to say that what there is is what there is. There remains room for disagreement over cases; and so the issue has stayed alive over the centuries. (1948: 1)

Allow me to extract two key points from this passage.

First, on this understanding of the subject, to study what exists is to study what there is. There is *no difference* between asking 'What exists?' and asking 'What is there?' Therefore, paradigmatic ontological questions may be cast in the following form: Are there numbers? Are there possible worlds? Are there souls? Are there properties? If there is both a trout and a turkey, then is there the 'mereological sum' of the two — a trout-turkey — in addition? Questions like these might strike us as interesting, obvious, or (sometimes) even absurd. Whatever your view, an attempt to answer each is an attempt to answer an *ontological question* in virtue of its concerning what there is or, equivalently, what exists.

The second point, concerns the *goal* of ontology. On this view, the goal of ontology is to list what there is. By doing that, we might be able to come up with a more informative answer than 'Everything'. It's helpful to think of this project as the making of an *inventory*. By arguing over particular cases, we'll be able to take a stab at an 'inventory of the world'.

For example, by answering whether or not there are numbers, we'll be able to figure out if numbers should be included in our inventory; by answering whether or not there are possible worlds, we'll be able to figure out if possible worlds should be included in the inventory. Since it is controversial whether or not it is possible to specify an *exhaustive* inventory, I'll remain neutral on this point.[2] The important idea is that, in doing ontology, we want to be able to give *a wide range* of general answers to questions concerning whether or not there are various kinds of things: numbers, properties, tables and chairs, and so on.[3]

2.3   Metaontology

Even if we accept the description of ontology above, there are still a number of further questions we can ask about what this project amounts to. This brings us to *meta*ontology.

The use of the term 'metaontology' is relatively recent — it was introduced in 1998 by Peter van Inwagen in his paper 'Meta-Ontology':

> Quine has called the question 'What is there?' 'the ontological question'. But if we call this question by that name, what name shall we use for the question, 'What are we asking when we ask 'What is there?'? Established usage, or misusage, suggests the name 'the meta-ontological question', and this is the name I shall use. (1998: 223)

Here's the idea. Where ontology is the study of what there is, *meta*ontology is the study of ontology, i.e. the study of the study of what there is. Correspondingly, metaontological *questions* are questions about ontology and metaontological debates are debates about the right answers to these questions.

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[2] For example, if we tried to specify an *exhaustive* list, we might run up against arguments regarding the 'indefinite extendability' of concepts (Dummett, 1963), set-theoretic paradoxes (Williamson, 2003), and concerns about the impossibility of making a list from 'outside' any conceptual scheme (Hellman, 2006). At the end of this thesis, I'll suggest an argument to the effect that an exhaustive list is *not* possible.

[3] There are alternative definitions of ontology which won't be discussed in this thesis. For example, 'neo-Meinongians' claim that we should *distinguish* what there is and what exists because it is possible for there to be some entities which do not exist (Chisholm, 1973; Routly, 1980; Priest, 2005; Crane, 2013). In addition, there are others who think ontology is about 'what grounds what' (Schaffer, 2009) or 'what constitutes reality' (Fine, 2009), where such views are distinguished from merely asking what there is. Adjudicating between these different conceptions of ontology is beyond the scope of this thesis. All of the views I discuss adhere to some form of the thesis that ontology is the study of what there is.

There are a variety of questions we can debate over in this area. Here are some paradigmatic examples:

(Q1) How do you answer an ontological question? Or, is it somehow misguided to even look for answers?

(Q2) How is it possible — if at all — to *know* the answer to an ontological question?

(Q3) If ontological questions are answerable, then are the right answers gotten by reflecting on our use of words or the contents of our conceptual scheme? Or, by contrast, do we have to engage in debates about the state of the world that those words and concepts represent?

(Q4) Are answers to ontological questions trivial or, somehow, shallow? Or are they deep, difficult, and often surprising?

Doubtless, there are other questions we could ask. For now, note that each question counts as a metaontological question in virtue of its being about the study of what there is — about the very practice and character of answering existence questions.

What I want to do in the next two sections is provide a description of two opposing metaontological points of view. As we'll see, the differences between these two views largely coincide with the different answers they provide to the questions highlighted above. The first position is what I take to be the dominant conception of what it is to answer existence questions in contemporary analytic metaphysics. This is the view I call 'mainstream ontology'. The second view is one in opposition to mainstream ontology: a position I highlighted above as 'easy ontology'.

2.4 Mainstream ontology

Before describing mainstream ontology, let me note the following: my description is not *exhaustive* of every attempt to answer ontological questions in recent analytic metaphysics.[4]

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[4] As explained in the previous footnote, some influential metaphysicians like Kit Fine (2009) and Jonathan Schaffer (2009) adhere to a different conception of ontology than that described above. For this reason, I am hesitant to say that they are mainstream ontologists. Furthermore, 'Canberra Planners' like Frank Jackson (1998) can look like an ambiguous case. This is because Jackson allows conceptual analysis to play

Nevertheless, I *do* want to claim that my description provides an accurate characterisation of *many* recent attempts to answer ontological questions. In fact, I think that 'mainstream ontology' largely coincides with some of the most celebrated metaphysical arguments over the past sixty years.[5] Thus I hope that my characterisation is far from a straw-man and instead an accurate description of the *dominant* metaontology of recent metaphysics.

2.4.1   The method

The first thing to say about the dominant metaontology concerns its methodology. This amounts to the mainstream ontologist's answer to question (Q1) — an account of *how* ontological questions are to be answered (and thereby an affirmation that it is not misguided to try to answer these questions). The method is often called the 'Quinean method', since it takes inspiration from the writings of Quine.[6] While I don't want to claim that Quine himself counts as a mainstream ontologist, the method attributed to him is undoubtably at the centre of many ontological debates.[7] For example, according to Gideon Rosen, 'It is only a slight exaggeration to say that in our understanding of what metaphysics is and how it is possible, we are all Quineans now' (2013: 553 - 554). Likewise, David Manley claims 'the preferred' methodology for answering ontological questions is 'of the type recommended by W. V. O. Quine' (2009: 3), and Amie Thomasson goes so far as to suggest that 'The Neo-Quinean approach has become so dominant as to become almost invisible as a methodological choice' (2015: 3).

What is this 'Quinean' methodology? The key thought is that we can extract our inventory of what exists by figuring out what the bound variables of our quantifiers must range over in order for our best total theory of the world to be true. We can distinguish

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an important role in metaphysics and my mainstream ontologist (as we'll see) downplays the importance of conceptual analysis. However, we can distinguish Jackson's claim that conceptual analysis should play a role in metaphysics from his assumption that there exist only physical things and, therefore, that only physical things are capable of satisfying the roles played by our concepts. The later assumption is an instance of mainstream ontology, in my sense, even though the former is not. And it is only this later assumption that is, strictly speaking, Jackson's *ontological* claim.

[5]Famous examples of mainstream ontology, in my sense, are Lewis' (1986) argument for the existence of concrete possible worlds, Sider's (2001) argument for the existence of temporal parts, Field's (1980) argument against the existence of numbers, and van Inwagen's (1990) arguments against the existence of (non-living) composite objects like tables and chairs.

[6]The method is arguably first put forward in Quine's (1948), but see his (1951; 1960) for further exposition.

[7]See Soames (2009) and Price (2009) for some good reasons to doubt that he was a mainstream ontologist in my sense.

two ideas here. First, that of formulating a best total theory of the world. Second, that of seeing what the bound variables of our quantifiers must range over for such a theory to be true. I'll describe both these aspects in more detail, before providing some examples of how the methodology works in practice.

1. *The method.* First, what do ontologists mean by a 'best total theory of the world'? Assume that a *theory* is a collection of (interpreted) sentences, typically employed to explain various phenomena — physical phenomena, socio-economic phenomena, etc. Mainstream ontologists will typically want their theories of the world to be capable of explaining as many phenomena as possible — to employ a theory to find some unified understanding of the world at large. Therefore, we can take a total theory of the world to be a collection of interpreted sentences designed to explain as many phenomena as possible.

But what makes a theory, in this sense, a *best* theory of the world? Here mainstream ontologists typically follow Quine in thinking that the acceptance of an overall theory is 'similar in principle to our acceptance of a scientific theory' (1948: 16). Scientists tend to adjudicate between rival theories on the basis of two broad criteria: (i) empirical adequacy — in the sense that the theory should be confirmed by our sensory experience — and (ii) maximisation of extra-empirical, or theoretical virtues like simplicity, explanatory power, elegance, and the ability of an overall theory to unify others. While the theories of mainstream ontologists will often perform equally well in light of empirical adequacy — for example, it makes no difference to our sensory promptings whether or not there are numbers or even whether or not there are tables or merely particles arranged table-wise — reliance on the theoretical virtues plays a crucial role.

The thought that adjudicating between ontological theories relies on comparing theoretical virtues is evidenced by Ted Sider's gloss on how most ontologists decide upon a theory of the world:

> They treat competing positions as tentative hypotheses about the world, and assess them with 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)

Likewise, John Hawthorne claims that metaphysicians argue for a given theory of the world in a way that does 'not presume any special *a priori* access to its truth, being content rather to defend it on the grounds of broad theoretical virtues' (2009: 215).

Therefore, mainstream ontologists will adjudicate between rival theories by assessing them in light of considerations like simplicity, explanatory power, elegance, and so on. For example, suppose that a theory T_1 and a theory T_2 are both equally explanatory. However, T_1 is simpler insofar as its able to do all this explanatory work with reference to the existence of *less* objects. If true, the mainstream ontologist will take this to be a reason to prefer T_1 to T_2. In this way, the *best* total theory of the world, according to the mainstream ontologist, will often be the one which 'maximises' or 'does the best job' of accommodating these kinds of virtues.

Once we have a best total theory of the world, the mainstream ontologist will then want to identify the ontology of the theory: to figure out what objects must exist in order for the theory to be true. To do this, the mainstream ontologist will 'regiment' or translate her favourite theory into the notation of a 'canonical logic'. This is typically some form of first-order, predicate logic with identity. Such a logic contains a symbol called the 'existential quantifier' or '∃', which abbreviates the phrase 'There is something' in much the same way that the symbol '+' abbreviates the English word 'plus'. In addition, '∃' can be concatenated with a predicate 'ϕ' and a variable 'x' to yield sentences of the form $\ulcorner \exists x \phi(x) \urcorner$, to be read 'There is some entity such that it is ϕ'. The thought is that the variable x is taken to range over any object in the world o that would make a sentence of the form $\ulcorner \phi(x) \urcorner$ true when o is assigned as the value of x.

This regimentation allows the mainstream ontologist to be able to identify what objects need to exist in order for her chosen theory to be true. For example, according to mainstream ontologists, a theory requires the existence of prime numbers if, and only if, the regimented version of the theory contains (or entails) a sentence like

(1) $\exists x$ (x is a prime number).

[*Read*: There is a prime number.]

For, in order for (1) to be true, there must be some object in the world o which counts as a

prime number. Likewise, they'll commit themselves to the existence of wombats if, and only if, their theory contains (or entails) a sentence like

(2) $\exists x \, (x$ is a wombat$)$,

[*Read*: There is a wombat.]

since, again, in order for (2) to be true, there must be some object o which counts as a wombat. By regimenting their theory into this canonical notation, mainstream ontologists are thus able to identify what are often called the 'ontological commitments' of the theory — those entities needed to exist in order for the theory to be true.

Once mainstream ontologists have decided upon a best total theory and regimented it in this way, they simply commit themselves to the existence of whatever entities are within the range of bound variables of their quantifiers. Thus, suppose a mainstream ontologist takes (1) and (2) as elements of their regimented best total theory. Then, in accepting that the regimented theory is true, the mainstream ontologist will thereby accept the existence of prime numbers and wombats. In this way, the inventory of the world will be taken to be whatever the bound variables of the quantifiers must range over in order for the (regimented version) of their best theory to be true.

2. *Examples*. A glance at some of the most celebrated arguments for and against the existence of various entities illustrates a widespread acceptance of the Quinean method. Allow me to briefly illustrate some famous examples.

Consider David Lewis' classic argument for the existence of concrete possible worlds. Here's his overall case:

> Why believe in a plurality of worlds? — Because the hypothesis is serviceable, and that is reason to think that it is true ... We have only to believe in the vast realm of *possibilia* and there we find what we need to advance our endeavours. We find the wherewithal to reduce the diversity of notions we must except as primitive, and thereby to improve the unity and economy of the theory that is our professional concern — total theory, the whole of what we take to be true. (1986: 3 - 4).

Lewis' idea was that accepting quantification over concrete possible worlds allows us to explain a variety of previously unexplained phenomena. According to Lewis, we can explain the truth-conditions of modal claims (1986: 5 - 20) and counterfactual conditionals (1986: 21 -27), as well as the natures of propositions (1986: 27 - 50) and properties (1986: 50 - 69) all by admitting quantification over concrete possible worlds (and sets of such worlds) in our total theory. This allows Lewis to claim that theories which are ontologically committed to concrete possible worlds fare better, in light of the theoretical virtues, than those that don't: they increase the explanatory power of the theory and thereby improve the theory's overall 'unity and economy' by no longer having to rely on primitive notions. Clearly, this is an instance of the Quinean method in practice: according to Lewis, the best argument *for* the existence of a given kind of entity — in this case, possible worlds — consists in the fact that quantification over them makes our theories more theoretically virtuous.

In addition, the Quinean methodology has allowed mainstream ontologists to be able to argue *against* the existence of entities as well. This is typically done by appeal to virtues like ontological simplicity — that overall theories are 'better', *ceteris paribus*, if they assume the existence of less entities. To make this case, mainstream ontologists will attempt to 'paraphrase away' or eliminate those sentences of our theories which would commit us to the existence of the offending entity, without thereby incurring any loss of other virtues like explanatory power.

Consider how the strategy works in debates over the existence of mathematical entities like numbers and sets. According to some ontologists (Quine, 1498; Putnam, 1970) reference to and quantification over such entities is unavoidable in the formulation of our best physical theories, suggesting that any best theory of the world must countenance the existence of numbers and sets. However, Hartry Field famously countered this argument by claiming that 'the mathematics needed for application to the physical world does not include anything which even *prima facie* contains references to (or quantification over) abstract entities like numbers, functions, or sets (1980: 1- 2)'.

His idea was that we could argue for *nominalism* — the view that there are no numbers or other abstract objects — by rewriting our best scientific theories in such a way that quantification over numbers and sets could be dispensed with for scientific purposes. For example, Field argued that the appearance of claims like

(3) The number of kangaroos is equal to two,

which *prima facie* makes reference to a number, could be systematically replaced by claims which didn't refer to abstract objects at all. For example, according to Field, the mathematics required for application to the physical world only requires that regimented sentences like

(4) $\exists x \exists y\, (x$ is a kangaroo $\wedge\, y$ is a kangaroo $\wedge\, x \neq y \wedge \forall z\, (z$ is a kangaroo $\rightarrow z = x \vee z = y))$

[*Read*: There are exactly two kangaroos.]

be true. Unlike (3), (4) does not quantify over or refer to numbers. Instead, it merely *counts the kangaroos* — saying that there are exactly two of them.

According to Field (1980: 7 - 23), whenever scientists seem to be referring to abstract objects by asserting claims like (3), this is merely a more convenient way for them to say what is better represented by (4). In particular, Field argued that anything that could be proven by a scientific theory T, containing quantification over mathematical entities, could be equally proven more laboriously within a theory N, containing no quantification over such entities. In putting forward such a view, Field hoped that we could gain all the explanatory power of our best sciences with an ontologically simpler theory: one which did away with reference to and quantification over mathematical entities entirely.

Similar arguments have also been employed by van Inwagen (1990: 98 - 108), Merricks (2001), and Rosen and Dorr (2002) to argue against the existence of ordinary composite objects like tables an chairs. For example, Rosen and Dorr *deny* that regimented sentences like

(5) $\exists x \exists y\, (x$ is a table $\wedge\, y$ is a chair $\wedge\, x$ is heavier than $y)$,

[*Read*: There is some table which is heavier than some chair.]

are needed to explain why it's sometimes harder for me to lift some things rather than others. Instead, they argue that we only need to quantify over simple (non-composite) particles which are merely 'arranged table-wise' and 'chair-wise'. To do so, they employ plural quantifiers like '$\exists xx$' (to be read: there are some entities).[8] They then explain why

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[8] The classic argument for the acceptance of plural quantification comes from Boolos (1984). See Oliver and Smiley (2013) for more on plural quantification.

I have the experience of it being harder to lift some things rather than others by using the sentence:

(6) $\exists xx \exists yy$ (xx are particles arranged table-wise $\wedge$ yy are particles arranged chair-wise $\wedge$ xx are heavier than yy).

[*Read*: There are some particles arranged table-wise which are heavier than those particles arranged chair-wise.]

According to Rosen and Dorr, (6) can explain everything we would've wanted to explain with (5). Yet, (6) doesn't require the existence of tables and chairs to be true. Therefore, any theory which paraphrases away sentences like (5) in favour of sentences like (6) will fare better in light of ontological simplicity. Yet again, we have an argument which claims that, because we can avoid quantification over kinds of objects without making our theory less virtuous, we are safe to say that such entities don't exist.

There are more examples I could rehearse, but I think this is enough to make the following point: many of the most celebrated arguments for and against the existence of various kinds of entities subscribe to the 'Quinean' methodology. In each case, ontologists argue for or against the existence of a given entity by figuring out whether or not such entities must be quantified over in our best total theory of the world — where a 'best' theory is arrived at by striking the best balance between the theoretical virtues.

2.4.2   The character

There is more to mainstream ontology than the methodology alone. Adherence to the Quinean methodology tends to engender a certain conception of the *character* of ontological inquiry as well. To describe how mainstream ontologists think of the character of ontology, I'll discuss how they tend to answer the rest of the metaontological questions highlighted above.

Consider question (Q2) — how, according to these ontologists, is it possible to *know* the answers to ontological questions? Above we saw that the choice of a given ontological theory is dictated, in large part, by weighing up how well it performs relative to the theoretical virtues. This leads to the following thought about the epistemology of ontology, nicely glossed by Ted Sider:

[O]ntological questions are 'epistemically metaphysical': they resist direct empirical methods but are nevertheless not answerable by conceptual analysis. (2011: 187)

The thought is that we cannot answer an ontological question simply by reflecting on our words and concepts or by engaging in direct empirical inquiry (by simply looking at the world, for example). It might *look* like there is a table over there, but if it turns out that we can come up with a more virtuous theory which doesn't assume the existence of tables, then this gives us reason to believe that tables don't exist. Likewise, we might take it to be a conceptual truth that there are prime numbers. But, again, if we can come up with a more virtuous theory dispensing with quantification over prime numbers, then such conceptual analysis won't provide us with a definitive argument for the existence of primes. In this sense, mainstream ontologists claim that the epistemology of ontology is 'quasi-scientific' in the sense of relying on the theoretical virtues. As John Hawthrone claims, the Quinean method is supposed to make our choice of ontology a 'quasi-empirical thesis whose tenuous connection to experience is not different in kind to that of various bits of high-level physical theory' (2009: 215).

What about (Q3)? Are the right answers to existence questions achieved by reflecting on how we use words? Or do we have to engage in substantive debates about the state of the world that those words represent? While mainstream ontologists are trying to construct *theories*, which are themselves collections of sentences, it is important to remember that such theories are thought of as theories *of the world*, rather than our language and concepts. Thus, mainstream ontologists tend to conceive of themselves as primarily engaged in theorising on the *world* side of the word-world divide — they see ontological theories as similar to scientific theories which attempt to figure out what the world is really like independent of our thought and talk about it.

This assumption is borne out in the literature. For example, David Manley assesses the primary concern of contemporary ontologists in the following way:

Most contemporary metaphysicians think of themselves as concerned, not primarily with the representations of language and thoughts, but with the reality that is represented. (2009: 3)

Likewise, Timothy Williamson claims:

Much contemporary metaphysics is not primarily concerned with thought or language at all. Its goal is to discover what fundamental kinds of things there are ... not to study the structure of our thought about them. (2007: 19)

Thus, the project of developing maximally virtuous theories and figuring our what needs to be quantified over in order for them to be true is, according to the mainstream ontologist, an attempt to figure out what the structure of the world is really like, not an attempt to figure out the way we think and talk.

Finally, how do most contemporary ontologists answer (Q4)? Are answers to ontological questions trivial or shallow? Or are they deep and difficult? The consensus is that they are deep and difficult. Consider Kit Fine's assessement:

It is usually supposed that the answers to ontological questions are non-trivial. Thus whatever the answer to the ontological question of whether numbers exist, it is neither trivially true nor trivially false. (2009: 158)

Similarly, David Chalmers claims:

Many ontologists hold that ontological assertions of sentences such as 'Numbers exist' are neither trivially true nor trivially false ... The same goes for an ontological assertion of 'If there are particles arranged heapwise, there is a heap'. (2009: 96)

Notice, this is just what we would expect by employing the Quinean method. After all, figuring out what our best total theory of the world is and regimenting such a theory in the right way is *hard work*. The arguments of mainstream ontologists do not rely on trivial platitudes or obvious facts. In each of the answers highlighted in the above discussion — that concrete possible worlds exist and that numbers and ordinary objects don't exist — the Quinean method is supposed to lead us to a *surprising* answer, requiring a good deal of philosophical justification. Thus, mainstream ontologists will claim that answers to ontological questions are not trivial, shallow, or otherwise obvious; instead, they are deep, difficult, and often surprising.

2.4.3 How to be a mainstream ontologist

What have we learned from this discussion? Allow me to summarise the points I've made by providing the following account of 'mainstream ontology'. For the purposes of this thesis, I will say that *if* your attempts to answer existence questions can be characterised by the *conjunction* of the following four theses, then that is sufficient to describe you as a 'mainstream ontologist'.

MAINSTREAM ONTOLOGY:

1. *Methodology*: Figuring out what exists requires figuring out what the bound variables of our quantifiers must range over in order for (a regimented version of) our best total theory of the world to be true.

2. *Theoreticity*: We know what exists 'quasi-scientifically' by relying on the idea that some theories better maximise the theoretical virtues than others, rather than by conceptual analysis and/or direct empirical inquiry.

3. *Materiality*: The proper mode of inquiry employed in answering ontological questions is inquiry into what the world is like, rather than what our language or concepts are like.

4. *Depth*: Ontological inquiry is generally non-trivial, difficult, and often surprising. The answers we are looking for are not easy, shallow, or otherwise obvious.

To be clear, my claim is not that mainstream ontology is characterised by all *and only* the conjunction of these theses. In addition to subscribing these theses, mainstream ontologists might also employ other argumentative strategies or characterise their arguments as adhering to further principles. My claim is that, at a minimum, adhering to these theses is *sufficient* for counting as a mainstream ontologist. In addition, I think I've provided enough examples and textual evidence to support the idea that much of recent ontology can be adequately captured along these lines. For this reason, mainstream ontology can be thought of as the 'status-quo' metaontology of contemporary metaphysics.

2.5 Easy ontology

However, recently mainstream ontology has come under fire. For one, despite employing a similar methodology, mainstream ontological debates have waged on with little hope of convergence.[9] In addition, there's often been a lingering suspicion that mainstream ontology makes the standards for determining whether or not numbers, tables, and other entities exist excessively high. After all, mathematicians seem to have a pretty good way of deciding if there are infinitely many primes, and there seem to be perfectly good ordinary standards under which we may say that there are tables in the other room. Do we really need to do mainstream ontology to figure out whether or not these things *really* exist? It seems that such arguments haven't even convinced mainstream ontologists themselves.

For these, among other, reasons many philosophers have started to endorse what are often called 'deflationary' conceptions of ontology. Sider sums up the idea nicely:

> These critics — 'ontological deflationists', I'll call them — have said ... that there is something wrong with ontological questions themselves. Other than questions of conceptual analysis, there are no sensible questions of (philosophical) ontology. Certainly there are no questions that are fit to debate in the manner of the ontologists. (2009: 385 - 386)

By '(philosophical) ontology' and 'the ontologists' Sider means what I've been calling 'mainstream ontology' and 'the mainstream ontologists'. So, according to deflationists, there's something wrong with mainstream ontological inquiry — apart from issues regarding our use of terms and concepts, there's nothing much to debate with respect to existence questions.

There are many different kinds of deflationary views.[10] However, I want to focus here on one version of ontological deflationism: a view called 'easy ontology'. Many take Carnap's 'Empiricism, Semantics, and Ontology' (1950/1956) to be the *locus classicus* of

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[9]Of course, this isn't necessarily dissimilar from the rest of philosophy. Nevertheless, lack of convergence is always grounds, in my view, for a critical eye and a reassessment of whether or not we're asking the right questions.

[10]Those I won't be focused on include Hirsch's 'quantifier variance' (2011), Rayo's 'compositionalism' (2013) and Yablo's 'presuppositionalism' (2009).

the view.[11] In addition, the view has seen a resurgence of interest in recent years, mainly due to Amie Thomasson's recent reformulation of the view.

In this section, I'll describe the contours of easy ontology by outlining both Carnap and Thomasson's positions. In my view, easy ontology is the kind of position pragmatists would do well to adopt if they want to provide answers to existence questions in a way that contrasts with mainstream ontology. Therefore, in my exposition of easy ontology, I'll take care to highlight the difference senses in which easy ontologists reject the central theses of mainstream ontology highlighted above.

2.5.1 Carnap's metaontology

I'll start with Carnap. While Carnap was writing before the dawn of 'mainstream ontology', it's clear he would have thought it was a misguided project. In fact, to construct his account, Carnap began by rejecting *materiality*. According to Carnap, if we are wondering whether or not numbers or ordinary objects exist, we shouldn't try to answer the question by directly theorising about the world. Instead, we should set aside questions about the world and start asking questions about language. For, according to Carnap, ontological questions only become answerable once certain linguistic issues have been settled.

In particular, Carnap thought that answers to existence questions hinge on the notion of a 'linguistic framework'. In Carnap's words:

> 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, subject to new rules. We may call this the construction of a *linguistic framework* for the new entities in question. (1950: 21)

His thought was that *prior* to being able to make claims about what there is, we need to be clear about *the rules which dictate our use of the words employed to talk about such entities*. Here linguistic frameworks are thought of as systems of rules governing how quantifiers, singular terms, and predicates are to be used, where these rules provide such linguistic items with meaning. So construed, linguistic frameworks are connected with the

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[11]Thomasson (2015: 29 - 80) provides an excellent reading of how the roots of easy ontology are to be found in Carnap's famous paper. Other philosophers who have provided similar readings are Yablo (1998), Burgess (2005), and Price (2009).

meaningfulness of questions and assertions. For example, according to Carnap, questions like 'Are there prime numbers?' are only meaningful insofar as there is some linguistic framework in place governing the use of its constituent expressions.

Put this way, a 'linguistic framework' can seem relatively uncontroversial, but Carnap thought it had significant implications for ontology. In particular, according to Carnap, the rules which constitute linguistic frameworks make it the case that 'answers [to onto-logical questions] may be found either by purely logical methods or by empirical methods, depending upon whether the framework is a logical or a factual one' (1950/56: 214). And note that this claim seems to conflict with the mainstream ontologist's assumption of *theoreticity*. For, if Carnap is right, we can know the answer to an existence question either by understanding the logical rules governing our linguistic expressions or by employing fairly direct empirical inquiry. There is therefore no sense in which answers to ontological questions are 'epistemically metaphysical', to use Sider's turn of phrase.

Let's illustrate with some examples. Suppose we are wondering whether or not wom-bats exist. According to Carnap, to answer this question, we employ an empirical frame-work, where 'observations are evaluated according to certain rules as confirming or dis-confirming evidence for possible answers' (1950/56: 207). For example, the framework might be governed by a rule taking us from various direct sensory promptings — seeing the movements of a brown bear-like creature — to the correctness of asserting 'There is a wombat'. We therefore come to an ontological conclusion — that wombats exist — purely by knowing how to use the sentence in conjunction with various sensory promptings.

In the case of numbers, we employ a 'logical framework' instead. Here the framework is constructed by 'introducing new expressions with suitable rules' — for example, rules for the use of singular terms like 'five', predicates like 'is a prime number', and quantifiers with 'numerical variables' (1950/1956: 208). According to Carnap, the rules of use governing such expressions make it the case that answers to questions about the existence of numbers are 'found, not by empirical investigation based on observations, but by logical analysis based on the rules for the new expressions. Therefore the answers are here analytic, i.e. logically true' (1950/56: 209).

The idea is that the rules governing 'five' and ' is a prime number' will tell us that 'Five is a prime number' is always assertible since, according to Carnap, it is analytically true in virtue of the rules of use governing the words constituting the sentence. We

can then, according to Carnap, conclude that 'There is a prime number' given the rules governing the existential quantifier within the framework. Here, the move from 'Five is prime' to 'There is a prime number' is to be thought of as a trivial application of a rule constituting the meaning of 'There is something'. Carnap thus proposes that we can answer existence questions by theorising about the rules of use governing our terms, predicates, and quantifiers in such a way that answers to these questions can be known by empirical methods and/or as conceptual or analytic truths.

From here, Carnap goes on to make a crucial distinction. First, Carnap calls the kinds of questions and answers just described 'internal', since they are asked and answered *by employing the rules of a linguistic framework*. He distinguishes these questions and answers from purportedly factual ones 'external' to a given framework — those that are attempted to be asked and answered from 'outside' these linguistic rules.

Now, as Carnap notes, internal questions and answers don't line up with 'traditional' philosophical attempts to answer existence questions. According to Carnap, this is because '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' (1950/56: 209). In effect, Carnap's claim is that internal answers to existence questions are too *obvious or trivial* to be suited to philosophical ontology. They don't require any difficult philosophical argumentation provided we are clear on how we are using our words. This makes internal questions conflict with the mainstream ontologist's assumption of *depth*: internal answers are too shallow to be thought of as the kind of answers that the mainstream ontologist hopes to discover. In addition, since Carnap thinks that existence questions can be answered so easily, there is no need to go in for *methodology* either. For, on Carnap's account, we can figure out that numbers and wombats exist without attempting to figure out what the bound variables of our quantifiers must range over in order for our best total theory of the world to be true. Instead we simply adhere to the rules of whatever linguistic framework we are using and find that there are fairly clear-cut answers. Thus Carnap's internal answers to ontological questions would seem to go against mainstream ontology *at every level*.

Could the mainstream ontologist be asking an 'external' question instead? If so, Carnap thought that such external questions were of a 'problematic character' (1950/56: 206). This is because they are, by definition, questions *asked outside the frameworks whose rules*

provide them with meaning. Therefore, according to Carnap, if the mainstream ontologist attempts to ask and answer an external question, then she fails to ask a meaningful one, for the meanings of our words are necessarily constrained by the rules of our linguistic frameworks. Thus, uses of terms like 'prime number', 'wombat', and 'exists' can *only admit of internal answers*; for it is conformity to those rules which provides ontological questions and assertions with a meaning. In this sense, Carnap thought that the kinds of deep, non-trivial answers that mainstream and other ontologists hope to discover are simply not on the table.

However, there is, for Carnap, one kind of meaningful external question which it is possible to ask. But this isn't a question of fact — of whether or not it is true that there are numbers or wombats. Instead, the question is *pragmatic* in nature:

> 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. (1950: 35)

The thought is that, external to a linguistic framework, the only meaningful question is one in which we *mention*, rather than *use*, expressions like 'wombat' and 'prime number' and ask: is it useful, for whatever purposes we wish, to decide to employ these expressions? This is effectively an espousal of Carnap's 'principle of tolerance':

> In logic, there are no morals. Everyone is at liberty to build his own logic, i.e. his own form of language, as he wishes. (1956: 17)

Thus, according to Carnap, in deciding what rules to employ in building a given linguistic framework, the world makes no significant demands. It is up to us to figure out what we want out of our language and to employ such expressions in the most fruitful way. Once we've made that decision, answers to ontological questions will follow trivially from the rules of the framework.

The result is a view which cuts off mainstream and other accounts of ontology, replacing it with the view that the only possible answers to existence questions are *easy to answer,*

by employing either empirical or 'logical' knowledge. Any further question, for Carnap, can only be one regarding the practical utility of the linguistic framework we wish to employ.

2.5.2   Thomasson's metaontology

Thus Carnap's view was that ontological questions are very easy to answer in a way that explicitly contrasts with mainstream ontology. The contemporary heir to this view is 'easy ontology'. While versions of the view have been developed by 'neo-Fregeans' (Hale and Wright, 2001) with respect to the existence of numbers and Stephen Schiffer (2003) with respect to entities like propositions, the most prominent defender of the view is Amie L. Thomasson (2007; 2008; 2009; 2015) who has aimed to 'develop a contemporary version of a broadly neo-Carnapian approach to existence questions' (2015: 82). Here I'll highlight the contours of her approach.

Like Carnap, Thomasson thinks that understanding how to answer existence questions requires setting aside theorising about the world in favour of theorising about *language*. In particular, she thinks that understanding how speakers come to master the use of expressions like 'number', 'property', and 'exists' can allow us to claim that 'in many cases ontological debates may be resolved by engaging in trivial inferences from uncontroversial premises' in such a way that arriving at the right answers requires 'nothing more than conceptual and/or empirical work' (2015: 127). Thus, like Carnap, Thomasson's approach to existence questions also goes against the mainstream ontologist's presumption that ontological inquiry must conform to *materiality*, *theoreticity*, and *depth*. For arriving at answers to ontological questions will require theorising about our use of words and employing nothing more than conceptual and/or empirical inquiry to arrive at trivial answers.

One way to highlight the contours of Thomasson's view is by appeal to, what she calls, 'easy arguments'. Consider the question: Are there numbers? According to Thomasson, the question can be answered in just three simple steps.

AN EASY ARGUMENT FOR NUMBERS

(1n) There are two kangaroos.

(2n) The number of kangaroos is equal to two.

(3c) There exists a number — namely, the number two.

The argument has a certain pull in the sense that the moves from (1n) to (3c) sound *platitudinous*. According to Thomasson, this is because those who have mastered the rules of use governing numerical terms and quantifiers in ordinary language know that they are entitled to make these kinds of inferences.

To see this, Thomasson notes that whether or not you accept the existence of numbers, you will be entitled to the 'uncontroversial premise', (1n), since it doesn't itself refer to or quantify over numbers. In fact, mainstream ontologists who deny the existence of numbers will often appeal to the truth of claims like (1n) in order to show that these sentences are all that is required to develop a maximally virtuous theory of the world.[12] In addition, knowing that (1n) is the case doesn't require any special theoretical knowledge. Instead, we can establish the truth of (1n) by merely looking around the Australian outback.

However, once we've accepted (1n), speakers who have mastered the use of terms like 'the number of kangaroos' and 'two' are, on Thomasson's analysis, entitled to apply these terms in a sentence like (2n) in virtue of knowing that their rules of use allow us to apply these numerical terms in an equivalence claim whenever there are two kangaroos. In this sense, according to Thomasson, speakers who know how to use numerical terms will know that they can move from (1n) to (2n) in virtue of their conceptual or linguistic competence alone.

She then claims that speakers who have mastered the use of 'exists' know that a correct application of a term like 'two' is sufficient to entitle them to a claim like (3c) — allowing them to say that the number two exists. Thus, according to Thomasson, speakers who have mastered the use of existence claims are entitled to move from (2n) to (3c). But once we've gotten to (3c), we've answered the question of whether or not numbers exist. Thomasson therefore claims that we can start from an uncontroversial truth (by the lights of the mainstream ontologist) and then trivially infer the existence of numbers using nothing more than conceptual and/or empirical work.

On Thomasson's account, a host of different existence questions can be arrived at in this way. For example, suppose two mainstream ontologists are having a debate over the existence of tables. Both parties will be entitled to the claim that there are particles arranged table-wise since even those mainstream ontologists who deny the existence of

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[12] As we saw in the discussion of Field's nominalism above.

tables will accept that there are such particles. However, according to Thomasson, speakers who have mastered the use of the term 'table' know that it applies whenever there are particles arranged table-wise. And since 'table' applies, Thomasson contends that this is all it takes for us to be entitled to the claim that tables exist.

Thus, if Thomasson's approach to existence questions is a good one, many ontological debates can be resolved in a way that explicitly contrasts with mainstream ontology, requiring no presumption of *materiality*, *theoreticity*, or *depth*. And this means that there is no reason to go in for *methodology* either. Thomasson puts it this way:

> This leaves us with a view that makes existence questions 'easy' to answer in the sense that it enables those existence questions that are well formed to be answered straightforwardly by conceptual and/or empirical work — leaving no need for distinctively philosophical inquiries into existence. (2015: 126)

For this reason, Thomasson claims that there is no need to figure out whether or not numbers or ordinary objects must be quantified over within a best total theory of the world. The existence of numbers and ordinary objects is easy to establish once we've mastered the rules of use for our terms and employed our conceptual competence and/or empirical inquiry.

And just like Carnap, Thomasson claims that the only *further* questions apart from the ones that typically receive a trivial answer are practical, rather than factual questions:

> If we ask a general 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 whcih they are introduced into the language*; the answer is a straightforward, easy 'Yes'. If we are spoiling for debate, we must undertake it on other territory: regarding whether we should use these terms, along with their customary rules of use, at all. (2015: 41)

Thus answering an ontological question doesn't require the sort of difficult theorising emblematic of mainstream ontology. If we are spoiling for debate, then, again, it'll have to be debate over the usefulness of they way we use terms, rather than about what the world is really like.

In the next chapter, I'll provide a more detailed analysis of Thomasson's approach to existence questions. But for now, I think I've done enough to highlight the differences between easy ontology and mainstream ontology. Let's take stock.

First, in contrast to mainstream ontology, easy ontological views start by theorising about *language* rather than the world. They therefore reject *materiality* insofar as they think the interesting work done in ontological debates should concern theorising about the rules of use for our terms, rather than what the world is really like. Then, once we have a clear view our language, the easy ontologist contends that existence questions can be answered straightforwardly through conceptual and/or empirical inquiry. In this sense the easy ontologist also rejects *theoreticity* — in contrast to the mainstream ontologist, the answers to ontological questions are not discovered in a way that is 'epistemically metaphysical' by relying on the theoretical virtues. In addition, since we can know the answers to ontological questions by relying mainly on our conceptual competence or simply by looking around us, this leads to the idea that the right answers to ontological questions are trivial or obvious, rather than deep and difficult. The easy ontologist thereby rejects *depth*, as well. Finally, because we can answer ontological questions so easily and in such a way that contrasts entirely with the character of mainstream ontological inquiry, the easy ontologist contends that there is no need to go in for *methodology*. Whether or not we must quantify over numbers, ordinary objects, and other entities in a 'best total theory' of the world is *irrelevant* to determining whether or not such entities exist.

In this way, the easy ontologist thinks that the mainstream ontologist's idea of what it is to ask and answer ontological questions *is misguided at every level*. Clearly if easy ontology turns out to be a more viable way of answering existence questions, then it poses a serious challenge to mainstream ontology.

2.6 Pragmatism

At the beginning of this chapter, I indicated that the main project of this thesis is to present and assess a distinctively *pragmatist* metaontology: 'ontological pragmatism'. As we'll see, the view is a form of easy ontology and stands in opposition to mainstream approaches to handling existence questions. Providing a precise formulation of pragmatism and developing an explicitly pragmatist version of easy ontology is the subject of the next

chapter. Therefore, what I want to do here is show how pragmatism might fit into the metaontological landscape as I've been describing it. In addition, I'll also explain why developing a pragmatist metaontology is a philosophically interesting project.

To do this, I'll provide a general characterisation of the view I have in mind when I use the term 'pragmatism'. I'll then highlight some initial threads running between this view and easy ontology. Finally, I'll finish off this chapter by suggesting some reasons for developing ontological pragmatism and exploring how far we can run with it.

2.6.1 Two types of pragmatisms

Let's start by distinguishing two versions of pragmatism: classical pragmatism and contemporary neo-pragmatism. Classical pragmatism is associated with American philosophers like C.S. Peirce and William James, writing at the turn of the last century. Central to their view was an understanding of *truth* — namely, that our beliefs are not true because they 'correspond to' or 'represent' some aspect of reality. Instead, according to the classical pragmatists, a belief is true insofar as it proves to be successful in helping us to cope with concrete problems. This is what James famously called being 'good in the way of belief' (1907: 42).[13]

Classical pragmatism is not the concern of this thesis. Instead, I'm interested in contemporary 'neo-pragmatism' — a philosophical outlook initially associated with Wilfred Sellars and Richard Rorty, and now associated with writers like Robert Brandom, Huw Price, Simon Blackburn, and Michael Williams, among others.[14] Like the classical pragmatists, these authors share a scepticism about notions like 'representation' and 'correspondence', along with a stress that philosophical theorising must not divorce itself from the concrete problems faced by human beings. However, they differ from their classical ancestors in two ways. First, while classical pragmatists tended to theorise about the nature of *mental states* like beliefs, neo-pragmatists are more *linguistically* oriented — taking an interest in

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[13]Peirce (1997) had a slightly different idea: that a true belief is one which would 'win out' at the 'end of inquiry'. Nevertheless, the core idea here is similar: that a true belief is one that allows us to best cope with whatever problems we are facing, even those problems faced towards at the 'end of inquiry'.

[14]Some of the classic texts here include Sellars (1948; 1953; 1954), Rorty (1979), Brandom (1994; 2000), Blackburn (1993), Price (1988; 2011), and Williams (2011; 2013). Others who plausibly count as 'pragmatist' in this sense are Horwich (1998; 2010), Carruthers (1987), Gibbard (2012), Kraut (1990; 2010), and, in some ways, Wilson (2006). Historically, neo-pragmatism shares much in common with Dewey and the 'Cambridge pragmatists' (Misak, 2016): Ramsey and the later Wittgenstein.

explaining various aspects of human language. Second, where, for classical pragmatists, scepticism about 'representation' and 'correspondence' was applied mainly to the theory of *truth*, neo-pragmatists instead apply such scepticism to the theory of *meaning*.

In effect what neo-pragmatists hope to do is to characterise the meanings of words and sentences, not by theorising about what these words and sentences represent, but by theorising about how they are *used* and how such uses help us to cope with the concrete problems of life. For example, Robert Brandom sums up his pragmatism in the following way:

> An account of the conceptual might explain the use of concepts in terms of a prior understanding of conceptual *content*. Or it might pursue a complimentary explanatory strategy about the practice of applying concepts and elaborating on that basis an understanding of conceptual content. The first can be called a *Platonist* strategy, and the second can be called a *pragmatist* strategy ... The pragmatist direction of explanation ... seeks to explain how the use of linguistic expressions ... confers conceptual content on them. (2000: 4)

Brandom's idea is that the *contents* of words and sentences are often thought of as the kind of thing that *represents* the world as being a certain way — they tell you that the world is thus and so. Many philosophers believe that it is the way our language represents the world that explains the meaning and use of a given word or sentence. Pragmatists, by contrast, reject the idea that 'representation' should play any explanatory role of this kind. Instead, the meanings of words and sentences are to be explained wholly *in terms of use* — in terms of our practices of applying certain words and sentences — often without recourse to some sort of correspondence between our words and the objects and properties in the world that those words represent. In addition, the role of words and sentences in the lives of the speakers who use them isn't said to consist in representing the world in various ways. Instead, it is said to consist in their ability to help us cope with concrete problems or do things that we couldn't otherwise do.

Most neo-pragmatists employ these kinds of explanations of meaning to provide philosophical accounts of various subject matters — of morality, modality, mathematics, or the mind, for example. Such accounts proceed by starting with an interest in moral, modal, or mathematical *language*, attempting to provide an account of these notions by

explaining the use and practical function of the relevant words and sentences, without (in many cases) resorting to theorising about the state of the world that those words and sentences represent.

Such an explanatory strategy is often thought to go hand in hand with a certain kind of *sceptical attitude towards ontology and metaphysics more generally*. For example, consider the question 'What is goodness?' According to many neo-pragmatists, we should avoid engaging in metaphysical puzzles about goodness itself — whether or not goodness is a natural property or non-natural property, for example. Instead, in the words of Macarthur and Price:

> The pragmatist ... wants to dismiss or demote such metaphysical puzzles
> in favour of more practical questions about the roles and functions of the
> matters in question in human life. (2007: 230-231)

The relevant 'matters' here are typically linguistic in nature. Thus, for many neo-pragmatists, the real philosophical questions aren't those like 'What is goodness?' or 'What kind of property does 'good' refer to?'. Instead, the important questions are those about practical linguistic policy: what's the practical point of having a predicate like 'is good' in our language? How do speakers *use* evaluative expressions?'. For this reason, pragmatists often claim that, in providing an account of some philosophical subject matter, their view is a 'no metaphysics view ... Pragmatists are metaphysical *quietists*' (Macarthur and Price, 2007: 234).

One major motivation for endorsing pragmatist approaches of this kind is the possibility of illuminating philosophical concepts like 'goodness' without having to worry about any corresponding metaphysical or epistemological baggage — for example, without having to worry about how properties like goodness fit into the natural world and how we can arrive at knowledge of such properties.[15] In addition, the view that meaning is not to be explained in virtue of representational notions like truth and reference is appealing for two reasons. First, 'deflationary' theories of truth and reference — which claim that these notions do not pick out substantive properties and so cannot play an explanatory role in a theory of meaning — have their own independent plausibility.[16] Second, by

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[15]In chapter 4 I will describe this motivation in more detail.

[16]There's a wide literature here, but see Brandom (1984) and Horwich (1990) for classic attempts to make this case.

focusing instead on the behaviour of actual human beings — how we use words and the practical reasons for doing so — pragmatists approaches suggest that we can understand the phenomena of human linguistic meaning in a way that makes it less mysterious and more amenable to a broadly naturalistic attitude towards philosophical explanation.[17]

Of course, pragmatist approaches are not without objections. For example, there are those who claim that substantial representational notions are required in order to provide systematic, compositional accounts of meaning (Fodor and Lepore, 1992; Lepore, 1994), worries about the possibility of defective or contradictory uses (Prior, 1960; Williamson, 2009), and worries arising from the plausibility of physicalistic versions of semantic externalism (Lepore, 1994; Lycan, 2000). However, in what follows, I'll be assuming that pragmatist approaches to meaning are viable options. The objections I'll be focused on in this thesis will mainly concern the viability of *ontological* pragmatism as a view in metaontology.[18]

2.6.2   Pragmatism and easy ontology

With the kind of pragmatism I'm interested in now on the table, allow me to highlight some initial points of contact between pragmatism and easy ontology. As should already be apparent, *one* sense in which pragmatists and easy ontologists are in broad solidarity is that both harbour a *sceptical attitude towards ontology*, at least as this project is usually conceived. Such an attitude has always been a core commitment of philosophical pragmatism. As Rorty suggested, pragmatism is supposed lead 'to a therapeutic approach to ontology (in which philosophy can straighten out pointless quarrels between common sense and science but not contribute any arguments of its own for the existence and inexistence of something)' (1979: 175). And, as Simon Blackburn suggests, 'for a pragmatist the crucial thing is not to answer questions about the function of language in ways that encourage *metaphysics*' (2013: 69). Thus pragmatists are ontological *sceptics* wishing to avoid, rather than engage in, the kind of substantive metaphysical inquiry emblematic of mainstream ontology. Likewise, as we saw, this sort of anti-ontological attitude is also taken up by easy ontologists, at least with respect to mainstream ontology. Therefore, both views compliment each other in the sense that they both believe that there's something *misguided*

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[17] See, for example, Sellars (1953; 1954), Rorty (1978) and Price (2011).

[18] Properly defending pragmatist approaches more generally would likely require a thesis of its own.

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about the usual philosophical attempts to answer existence questions.

In addition, there's another key connection between neo-pragmatism and easy ontology: both views share an interest in theorising about language in a way which looks towards how speakers *use* words and sentences, rather than by looking at what our words and sentences represent. As we saw, both Carnap and Thomasson construct their case against mainstream ontology by relying heavily on an account of the different rules of use which govern our terms and make them meaningful in such a way that theorising about the natures of numbers, tables and other objects isn't required. Therefore, the neo-pragmatist and the easy ontologist would seem to share a similar concern with theorising about various aspects of our use of language as well.[19]

Interestingly, the similarities between pragmatism and certain aspects of Carnap's easy ontology haven't been lost on pragmatists. In fact, Simon Blackburn has recently *defined* pragmatism in terms of, what he calls, a 'Carnapian external question':

> You will be a pragmatist about an area of discourse if you pose a Carnapian external question: how does it come about that you go in for this kind of discourse and thought? What is the explanation of this bit of our language game. And then you offer an account of what we are up to in going in for this discourse, and the account eschews any use of the referring expressions of the discourse; any appeal to anything that Quine would identify as the values of the bound variables if the discourse is regimented; or any semantic or ontological attempt to 'interpret' the discourse in a domain, to find referents for its terms or truth-makers for its sentences. (2013: 75)

While I don't want to commit myself to defining pragmatism in this way, the passage highlights an intriguing thread running between pragmatism and easy ontological views in virtue of their shared concern with theorising about language in a way that privileges the *use* and *practical roles* of our words and moves away from what those words are supposed to represent.

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[19]Note that, for the moment, I'm not claiming that the metaontologies of Carnap and Thomasson subscribe to a pragmatist account of meaning, but rather that both views have an interest in use. Whether Carnap counts as a pragmatist is much less straightforward. As we'll see in the next chapter, however, Thomasson's approach has very strong ties with pragmatist accounts of meaning.

However, while there have been points of contact between the two views, there's been no rigorous attempt at uniting them by developing a distinctively pragmatist version of easy ontology. In fact, despite pragmatism's long history of scepticism towards ontology, it isn't clear exactly where the pragmatist should stand in metaontological debates. But the prospects for the pragmatist here are good. In my view, it's possible to develop a pragmatist metaontology by exploiting the recourses of easy ontology. The rest of this thesis develops and draws out the consequences of endorsing a view of this kind.

2.7   Who cares?

But, before moving on, why should we care about such a project? To finish this chapter, I'll say something about who might be interested in a view like ontological pragmatism and what benefits there might be in developing it. I'll offer five different reasons:

> 1. Suppose you're a paid up pragmatist. You go in for pragmatist accounts of meaning and you think such accounts are a great way of throwing light on philosophical problems. Then one reason to be interested in developing *ontological* pragmatism is that it provides an account of how pragmatists should go about answering existence questions. After all, saying that some things exist and other things don't is something that human beings actually *do*. And any sufficiently anti-metaphysical pragmatist will want an account of why such a practice is legitimate, but also why mainstream ontology isn't. Ontological pragmatism can provide such an account. In addition, by endorsing ontological pragmatism, the pragmatist will now have a nice new way to be included in the currently thriving metaontological debates.

> 2. Suppose, again, you're a paid up pragmatist, but you don't know how you feel about easy ontology. By developing ontological pragmatism, I hope I'll be able to persuade you that you should be friendly to easy ontology. Not just because there's a way to be a pragmatist and an easy ontologist, but also because endorsing easy ontology can bring the pragmatist a lot of benefits. To issue just one example: to my mind, there's no serious pragmatist account of the existence of numbers. However, I argue in chapter 5, that ontological pragmatism about the existence of numbers

should be thought of as a viable option in the philosophy of mathematics. And most of this comes from taking advantage of the resources of easy ontology.

3. Suppose that you're an easy ontologist, but you don't know how you feel about pragmatism. Then I hope to show you that you should be friendly to pragmatist views given that the two approaches have so much in common. In addition, I think that pragmatism can actually help easy ontology more generally. Again, to take just one example: in chapter 4, I employ a number of different things that pragmatists have said about language to allow the easy ontologist to respond to some fairly difficult challenges.

4. Suppose you're interested in answering ontological questions, but you're fairly neutral about how such questions should be answered. You're a 'metaontological fence-sitter'. Then I hope I'll be able to persuade you that ontological pragmatism just might be a good approach to take. In the end, I want to be able to show that ontological pragmatism is an attractive view, not just another option.

5. Finally, another reason to be interested in such a project is simply that ontological pragmatism has a lot to say about how it is possible to answer existence questions and whether or not many of the most widely accepted ways of answering existence questions are viable at all. What red-blooded philosopher wouldn't want to engage with these issues? Therefore one reason to be interested in the project is simply that its subject matter is interesting, whether or not you're initially inclined to accept such a view.

Perhaps there are other sorts of philosophers who will find this project illuminating. Be that as it may, I think the project will interest a wide range of people working in both metaontology and pragmatism more generally. I'll now turn to the project of formulating this pragmatist view.

3

How to be an Ontological Pragmatist

We can improve our conceptual scheme ... but we cannot detach ourselves from it and compare it objectively with an unconceptualized reality. Hence, it is meaningless, I suggest, to inquire into the absolute correctness of a conceptual scheme as a mirror of reality. Our standard for appraising basic changes of conceptual scheme must be, not a realistic standard of correspondence to reality, but a pragmatic standard.

— W. V. O. Quine, *Identity, Ostension, Hypostasis*

3.1 Whither ontological pragmatism?

As we saw, pragmatists have often been dismissive of traditional philosophical attempts to answer existence questions. Far from engaging with the usual metaphysical arguments, 'the pragmatist', as Rorty claimed, 'does not think of himself as *any* kind of metaphysician' (1982: xxviii).

At the same time, recent interest in metaontology has unleashed a number of similarly dismissive or deflationary positions. You would think, therefore, that we'd have a clear view of the details of a deflationary metaontological position deserving of the title 'pragmatism' up and running. However, while connections have been made between various pragmatist themes and, for example, Carnap's (1950/56) arguments against ontology, it isn't exactly

clear what a self-standing pragmatist metaontology might look like.[1] The goal of this chapter is to fill this lacuna by developing such a view — to show you how to be an 'ontological pragmatist'.

To do this, I'll provide myself with broad two tasks. First, I'll provide a detailed account of what I take ontological pragmatism to be — how pragmatists should think about answering questions regarding the existence of numbers, ordinary objects, and other entities. Second, I'll are argue that such a view allows the pragmatist to conclude that 'mainstream ontology' — the dominant account of how to answer existence questions described in the previous chapter — rests on a mistake. Thus by knowing *what* pragmatists should say about answering existence questions, we'll be able to understand *why* they are entitled to reject mainstream ontology.

To complete the first task, I'll provide a precise definition of pragmatism about a given subject matter in terms of two theses: linguistic priority and anti-representationalism. I'll then imagine a particular kind of pragmatist — the ontological pragmatist — who wants to take part in contemporary metaontological debates. What kind of view would such a pragmatist hold? One way to develop such an approach would be to start from scratch. However, I'll employ a different strategy: I'll argue that the ontological pragmatist can erect the walls of her theory using mainly *plundered* materials. As hinted at in the previous chapter, I think that one of the most prominent deflationary metaontologies — Thomasson's 'easy ontology' — meshes strikingly well with pragmatism more generally.

In fact, Thomasson has already made connections here. In her words:

> [E]asy inferences also play a role in sophisticated versions of positions of-
> ten labeled as 'expressivist', 'pragmatist', or 'quasi-realist' ... Thus, though
> the connections between these traditions have seldom been drawn out, the
> most sophisticated (and to my mind most plausible) versions of [pragma-
> tism] about a relevant area of discourse also make use of the kinds of trivial

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[1]For example, in addition to Blackburn's understanding of pragmatism in terms of Carnap's legitimate 'external' question highlighted in the previous chapter, Burgess (2005) and Price (2006; 2009) have also stressed ties between pragmatist themes and the metaontologies of Carnap and even Quine. Nevertheless, pragmatism, as a metaontological position in its own right, isn't clearly defined. Consider the fact that the two recent textbooks on metaontology, Berto and Plebani's (2015) *Ontology and Metaontology* and Tahko's (2015) *An Introduction to Metametaphysics*, don't contain *any* discussion of pragmatism, much less anything like a pragmatist metaontology.

inferences endorsed [in] ... the easy approach to ontology.[2] (2015: 137 - 138)

Thus one of my main objectives is to draw out what has 'seldom been drawn out' by arguing that pragmatist are entitled to many of the details of Thomasson's account. I'll do this by arguing that the crucial aspects of Thomasson's approach subscribe to both linguistic priority and anti-representationalism, satisfying the definition of pragmatism thus offered. This will allow me to construct the view I'm calling 'ontological pragmatism' by employing various aspects of Thomasson's position.

With this assimilation between pragmatism and Thomasson's easy ontology on the table, I'll be in a position to argue that pragmatists have grounds for being sceptical of mainstream ontology. This will complete the second task. To do this, I'll clarify the sense in which ontological pragmatism differs from mainstream ontology. I'll then argue that pragmatists are entitled to a particular kind of 'Carnapian' argument against the legitimacy of mainstream ontological debates. Thus, by the end of the chapter, we'll have the workings of a deflationary metaontological view worthy of the pragmatist name.

3.2   Pragmatism explained

I want to show you how to be a pragmatist about ontology. But what is it to be a pragmatist about *any* given subject matter — for example, about modality, morality, or truth? While I highlighted the kind of pragmatism I'm after in the previous chapter, I'll now present a more detailed account of the view.

The definition of pragmatism I'll be employing is due initially to Macarthur and Price (2007) and nicely re-formulated by Michael Williams (2010; 2013). It does not capture *everything* we might mean by 'pragmatism', but it does capture the essential ingredients of the kind of neo-pragmatism defended by Price and Williams, along with much of the work of Sellars, Brandom, and Blackburn, to name a few.[3]

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[2]In addition, see Thomasson's (2014a) for the connections between semantic minimalism and her deflationary account of existence. See also her (forthcoming) for some connections between her view and pragmatism about ordinary objects.

[3]In addition to excluding the classical pragmatists, the definition doesn't necessarily capture Putnam's (1985) pragmatism — that even our most well confirmed theories (by both theoretical and operational standards) might fail to accurately 'mirror' or 'correspond' to reality — or Johnston's (1993) related 'response-dependent' pragmatism. However, in addition to the pragmatisms just mentioned, Williams' definition is also, I think, favourable to Rorty's (1978) pragmatism and is the preferred definition in Kraut and Scharp's

According to Williams, a pragmatist account of some subject matter is one which endorses the following two theses:

> *Linguistic Priority*: When dealing with metaphysical issues, don't start by asking about (say) the nature of values: examine what is distinctive of evaluative language.

> *Anti-Representationalism*: Representationalists explain the (proper) use of vocabulary items in terms of their meanings, and explain meaning (at least of non-logical vocabulary) in terms of semantic (word-world) relations, such as reference. By contrast, anti-representationalists eschew the use of semantic notions as explanatory primitives. All vocabularies — semantic vocabulary included — are to be characterised functionally, in terms of their use properties. Oversimplifying a bit, meaning does not explain use: use explains meaning.[4] (2013: 128)

In what follows, I'll define 'pragmatism' in terms of the conjunction of these two theses. The goal of this chapter, then, is to show you how to be *this* kind of pragmatist about *ontology*.

In the rest of this section, I'll describe what these theses amount to, sticking fairly close to Williams' discussion. This will provide us with everything we need to know about pragmatism for me to argue that a pragmatist account of ontology can be developed using Thomasson's materials.

3.2.1   Linguistic priority

Start with linguistic priority. Here the idea is that, in providing an account of some subject matter, pragmatists begin by characterising the *vocabulary* of that subject matter, rather than what the vocabulary is *about*. In the words of Macarthur and Price:

(2015).

[4]Does providing an 'explanation of meaning' assume the *existence* of meanings? It doesn't. The sense of 'explaining the meaning' here can be thought of as the sense in which we can account for the *significance* of an expression: that which distinguishes the expression from gibberish. Even Quine, the great *denier* of the existence of meanings, endorsed such a move: 'Here a parallel move is in order: treat the context 'having a meaning' in the spirit of a single word 'significant', and continue to turn our backs on the supposititious entities called meanings' (1953: 50). Not that *I* deny that there are meanings; instead, I just want to highlight the ontologically neutral starting point.

Pragmatism thus begins with linguistic explananda rather than material explananda; with phenomena concerning the *use* of certain vocabulary items rather than with things or properties of a non-linguistic nature. (2007: 231)

Pragmatists therefore want to explain *linguistic phenomena* like meaning and use. They start with questions like 'How do speakers use the word 'true'?', 'How does the word 'possibly' become meaningful?', and 'Why would human beings have expressions like 'right' and 'wrong' in the first place?' By contrast, they *don't* start by theorising about the nature of truth, possible worlds, or the evaluative properties themselves. Pragmatists thus hope to theorise by asking questions about language, rather questions about the (non-linguistic) world.[5]

However, as Williams claims, 'nearly all philosophers find themselves taking an interest in the characters of various vocabularies' (2013: 129). Thus linguistic priority isn't *distinctive* of pragmatism. What is distinctive of pragmatism is rather the *way in which* these vocabulary items are characterised.

3.2.2 Anti-representationalism

This leads us to anti-representationalism. We can distinguish two aspects of William's definition of it above. First, there is the thesis that

(i) Anti-representationalists eschew the use of semantic notions as explanatory primitives.

I'll call this the *negative* thesis because, in essence, it tells us what kinds of explanations pragmatists want to *avoid*: namely, *representationalist* explanations — those that *do* make use of semantic notions as explanatory primitives. Second, there is, what I'll call, the *positive* thesis that

(ii) All vocabularies — semantic vocabulary included — are to be characterised (or explained) functionally, in terms of their use properties.

This thesis specifies the kind of explanations pragmatists actually *employ*. Let's further unpack these ideas.

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[5]We could just as well describe things in a conceptual, rather than linguistic key. I focus on language rather than concepts for ease of exposition; not because I privilege language over thought.

1. *Avoiding representationalism.* The negative thesis says that pragmatists want to avoid representationalist explanations of linguistic phenomena like meaning and use. Such views take a variety of forms, but each attempts to explain these phenomena by employing semantic (word-world) relations like truth and reference. Semantic relations serve to map a target linguistic expression onto the worldly objects, properties, or state of affairs that they 'stand for' or 'represent'. Thus, we can understand representationalists as committed to the broader idea that understanding or explaining a language consists in understanding or explaining how it represents various aspects of the world in virtue of these semantic relations.

To illustrate, consider a position Timothy Williamson calls 'referentialism':

> [A] referentialist account of meaning gives centre stage to the referential semantics for a language, which is then used to explain the inference rules for the language, perhaps as those which preserve truth on that semantics (since a referential semantics for a language determines the truth-conditions of its sentences). (2009: 137)

Here the thought is that we can explain the meaning of the sentence

(1) Two is prime

by saying that its meaning consists in its having a certain *truth-condition*. Truth-conditions are specified by invoking reference as an explanatory primitive. For example, the referentialist will specify the truth-condition of (1) as

> (M1) 'Two is prime' is true iff the term 'two' refers to the number two and the predicate 'is prime' refers to the property of being prime or the set of prime objects.[6]

In this sense, referentialists explain the *meaning* of (1) by invoking truth and reference. They then explain why speakers are willing to *use* (1) in such a way that they tend to infer

(2) Two has no positive divisors other than one and itself,

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[6]A representationalist might eschew reference in the case of predicates and instead say that 'is prime' is *true of* the number two. This is still a semantic notion, however, since a predicate's being true of an object obviously invokes the semantic notion of truth.

by providing the truth-conditions of (2) in a similar fashion and claiming that speakers tend to use these sentences in that way because the inference is *truth-preserving* — the two sentences will always be true together since their terms refer to the same objects and their predicates are co-extensive with the same set of objects or properties. While referentialism is just one instance of representationalism, it nicely highlights the the essence of representationalist views more generally: that they *necessarily appeal to semantic (word-world) relations like truth and reference in explaining linguistic phenomena like meaning and use*.

As Williams indicates, pragmatists want to *avoid* representationalist explanations.[7] Note, this doesn't mean that pragmatists *deny* that our sentences are ever true or that our terms refer. Rather, the pragmatist is merely denying that notions like truth and reference are required to *explain* linguistic meaning and use. Thus instead of employing notions like truth and reference in order to explain a given vocabulary item, pragmatists propose an alternative strategy: *all* linguistic phenomena — including what it is to say that a sentence is true or that a term refers — are to be explained in terms of *use*.

2. *The use theory of meaning.* This leads us to the positive thesis. Williams calls such alternative accounts 'explanations of meaning in terms of use' or 'EMUs', for short (2013: 133). The idea is that it is our use of a word which explains or fixes its meaning. Thus it is the use of a word which plays the central role in the pragmatist's explanatory tool-kit.

According to Williams, such an account employs two distinct senses of 'use'. First, there is 'use as *usage*: how a word is used'; second, there is 'use as expressive function: *what* a word is used to do, what it is useful *for*' (2013: 135). By specifying both these aspects of use for a given vocabulary item, pragmatists take themselves to thereby explain (various aspects of) the meaning of the item in question.

Let's start by cashing out the idea of 'use as usage'. On Williams account, the usage of a linguistic item explains two different aspects of its meaning. First, it provides an account of what *constitutes* the meaning of a vocabulary item: what it is for such an expression to mean what it does. Second, it plays a role in explaining a speaker's *understanding* of the

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[7]However, there may be other roles representational notions can play in a pragmatist theory of meaning. For example, Williams (1999) and Price (2004) think that truth and reference might play a role in *specifying*, rather that explaining, linguistic meaning, while Brandom (2013) thinks that the notion of 'aboutness' or 'representation' can play an *expressive*, rather than explanatory role.

meaning of the vocabulary item: how a speaker knows the meaning of a word.

What is it for a vocabulary item to be associated with a usage, in this sense? Here, Williams employs (a version of) *inferentialism* about meaning. According to such accounts, we can distinguish between three different kinds of 'rules' or 'moves', specifying the (possible) proper usage of a vocabulary item, v, within a language, L. They are:

LANGUAGE-ENTRY RULES $=_{df}$ The stimulatory or environmental conditions which warrant the utterance of sentences containing v.

INTRA-LINGUISTIC RULES $=_{df}$ The other vocabulary item types, $v_1..v_n$, of sentences of L which stand in inferential relations to sentences containing v.

LANGUAGE-EXIT RULES $=_{df}$ The patterns of behaviour warranted by a speaker in uttering sentences containing v.

A vocabulary item v has a 'use as usage' insofar as it figures in these kinds of rules or moves. Appealing to such rules allows the pragmatist to explain the meaning of v without invoking notions like truth and reference. Instead, the pragmatist will say that the meaning of v is constituted by the specific role it plays in various entry, exit, or intra-linguistic transitions. In addition, a speaker understands what v means by specifying the sense in which a speaker can come to know how v is used according to such moves. In this sense, pragmatists hope to explain the meaning of v in terms of how a speaker uses it, rather than by invoking relations like truth and reference.[8]

Once such rules of usage have been specified, the second positive part of the project, on Williams' account, is to explain *why speakers conform to such rules of usage*. This is the role played by the notion of 'use as expressive function: what a word is used to *do*'. Here, the expressive function of a term can be thought of as the *practical* reasons a group of speakers have to conform to a given pattern of usage. Practical reasons are reasons to *do* something; theoretical reasons, by contrast, are reasons to believe that some proposition is *true*. Thus, in explaining what the expressive function of a vocabulary item v is, pragmatists will

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[8]Note, this isn't the only 'use-based' approach to meaning one might take. Consider Horwich's (1998; 2005) theory that meaning is constituted by 'law-like regularities of use' or versions of 'conceptual role semantics' (Field, 1977; Block, 1998; Harman, 1982, 1987). Inferentialism is forcefully defended by Sellars (1953, 1954) and Brandom (1994, 2000). While I'll be using inferentialism as a model, it's likely that alternative versions of ontological pragmatism can be constructed by employing these other use-theoretic approaches to meaning.

attempt to explain why it is that speakers go in for a practice in which they preform a certain action: using v is such a way that it conforms to a given pattern of usage. Such an explanation will tell us about the utility or 'survival value' of the expression, again, without invoking notions like truth and reference.

Such practical explanations typically won't be uniform. Instead, pragmatists will often claim that different vocabulary items have their meanings for a *variety of different practical purposes*. As Williams makes clear (2013: 137, 140, 142), pragmatists have offered different practical reasons why speakers would perform the kinds of patterns of usage that give causal, moral, and other kinds of vocabularies meaning. For example, speakers might have developed *causal* statements to make explicit and argue over the inferential rules constituting the meanings of empirical, non-causal, vocabulary items (Sellars, 1948; Brandom, 2008: 92 - 117). By contrast, *moral* expressions might be explained by the survival value of being able to express and argue over certain attitudes of approval and disapproval (Blackburn, 1993). These are all interestingly *different* practical reasons. Following Huw Price, I'll call this expressive pluralism about vocabulary items 'functional pluralism'.[9]

By specifying the use — in all these different senses — of a given vocabulary item, the pragmatist will thereby take herself to have explained everything we need to know about the item in question. This is what it is to offer an EMU for some vocabulary item.

3. *Example.* To make these ideas concrete, let's consider a paradigm case of an EMU. Following Williams, I'll take a 'minimalist' account of the truth-predicate to be emblematic of EMUs more generally. Later on, I'll be using this account to argue by analogy, so it'll be useful to highlight the example here.

According to minimalism, everything we need to know about the truth-predicate is said to be exhausted by the schema

  (T) The proposition that p is true iff p,

where the whole point of introducing 'true' into a language is exclusively as a generalising device.[10] As Williams claims, contemporary pragmatists are 'inclined to favour a *minimalist* or *deflationary* account of truth' (2013: 129). But why? According to Williams, it is because minimalism provides a *paradigm case* of a pragmatist EMU. In particular, as Williams

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[9] See Price (2011) for a variety of arguments for functional pluralism.
[10] The specific version of minimalism used by Williams here is due to Horwich (1990).

formulates it, the full minimalist EMU for the truth-predicate breaks down into the following three components:

1. (I-T): A *material inferential* (intra-linguistic) component. Excepting sentences that generate paradox, the inference from 'Snow is white' to 'It is true that snow is white' and vice versa, is always good; the inference from 'Grass is green' to 'It is true that grass is green', and vice versa, is always good, and so on.

2. (E-T): An *epistemological component*. Such inferences are *primitively* acceptable (a priori). They are 'free moves' in the discursive game.

3. (F-T): A *functional* component. The truth predicate is important as a generalising device. It enables us to do things that we could not otherwise do: endorse or repudiate claims that we cannot explicitly state because we do not know what they are ('You can always trust John: everything he tells you will be true') or because there are too many ('Every proposition of the form 'p or not-p' is true'). (2013: 134 - 35)

Why is this a paradigm case of an EMU? Consider the fact that the first two clauses — (I-T) and (E-T) — provide an explanation of the truth-predicate in terms of use as usage in the sense highlighted above. For example, (I-T) provides a specification of those uses which *constitute the meaning* of 'true'. Here such uses are *intra-linguistic*, material inferential moves from sentences which do not contain the truth predicate — 'Snow is white' — to sentences which do — 'It is true that snow is white', and vice versa. Thus, for 'true' to mean what it does just is for it to be used in accordance with these material inferences. This corresponds exactly to the kind of pragmatist explanations of what constitutes the meaning of a vocabulary item highlighted above. Moreover, (E-T) specifies how it is that a speaker knows the meaning of 'true'. According to Williams, and minimalists more generally, we say that speakers are justified in making these inferences *a priori* — knowing how to use 'true' in accordance with the specified intra-linguistic rules is *all* the speaker needs to know to correctly deploy 'true'.

In addition, (F-T) specifies the expressive function of 'true' — the practical advantage there is to conforming to the patterns of use specified by (I-T) and (E-T). Here the practical

reason speakers have for conforming to these rules is that it allows them to endorse or repudiate claims that they cannot explicitly state, either because the do not know what they are or because there are too many.

Finally, notice that nowhere in this explanation of the truth-predicate is the idea that 'true' refers to or 'stands for' some property. Truth itself doesn't appear in the EMU at all. Instead, the entire explanation of the truth-predicate proceeds by appealing to the way in which the predicate is used.

Minimalism about truth is therefore a paradigm case of a pragmatist account of some subject matter — in this case, of truth. Of course, pragmatist explanations of *other* vocabulary items will diverge in detail. Sometimes entry and exit-rules might be appealed to in addition to intra-linguistic ones; sometimes *a posteriori* knowledge may be required to account for a speaker's understanding; and the expressive function of other vocabulary items will undoubtably be different. But the main point is that pragmatists accounts of a given subject matter will typically exhibit the same general structure as the EMU for 'true'.

3.3 Pragmatism about ontology

I've just defined what it is to be a pragmatist about some subject matter: it is to provide an account of that subject matter which subscribes to both linguistic priority and anti-representationalism. Let us now imagine a character — the ontological pragmatist — who wants to be a pragmatist, in this sense, about *ontology*. What would such a view look like? Since ontology, broadly defined, is the practice of answering existence questions, our pragmatist will at least want to be able to explain this practice in terms of linguistic priority and anti-representationalism.

Now, because she will be committed to linguistic priority, our ontological pragmatist will want to start by providing an explanation of the *language* employed in asking and answering existence questions. What bits of language are these? Allow me to offer three general features of language my ontological pragmatist will be concerned with:

> 1. First, the ontological pragmatist should try to provide an account of claims involving words like 'exists' and 'there is something'. These expressions form a central part of our linguistic practices and speakers will often take themselves to correctly be able to say things like 'The number two exists' and 'There is a table in the

other room'. So the ontological pragmatist will want to provide a characterisation of the meaning and use of these kinds of words and sentences.

2. In addition, existence claims are intimately connected to the successful reference of particular terms. For example, if a speaker takes terms like 'two' and 'teacup' to refer to or pick out objects in the world, then she'll take herself to have adequate grounds for claiming that these objects exist. It would therefore be desirable for the ontological pragmatist to provide an account of *referential success* as well: the conditions under which a speaker can be said to correctly pick out an object.

3. Finally, because ontologists are typically concerned with figuring out whether or not certain *kinds* of objects exist — ordinary objects or numbers, for example — it would be helpful if the ontological pragmatist could provide an account of how to handle these more specific existence claims. To do this, our pragmatist will have to start by explaining the meaning and use of different kinds of singular and general terms — numerical and composite ordinary object terms — and show how these accounts fit into her broader account of existence claims and successful reference. By doing this, we'll be able to see that the ontological pragmatist can, in fact, provide answers to specific kinds of existence questions, and thereby see how the metaontological view can be made to work in practice.

Crucially, our pragmatist will want to do this all *in anti-representationalist terms*, by specifying various usage rules for the relevant linguistic expressions, along with providing an account of the practical functions of these expressions where appropriate.

Before moving on, however, note that our pragmatist isn't attempting to explain some specifically *philosophical* or *metaphysical* practice. Engaging in discourse which uses singular and general terms, employing them to pick out objects in the world, and saying that various objects exist is something that speakers actually do — and would continue to do — even if they never expressed an interest in metaphysics or philosophy more generally. Therefore, any fully explanatory characterisation of the kinds of linguistic practices speakers actually engage in should have something to say about these features of our language.[11]

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[11]It may be objected that assertions like 'Chairs exist' and 'The number two exists' only have uses in

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However, since our ontological pragmatist wants to be dismissive of 'philosophical' or 'metaphysical' attempts to answer ontological questions, they'll want to avoid a situation in which their explanation of these phenomena vindicates, what I've been calling, 'mainstream ontology'. Instead, the hope will be that, by explaining these phenomena in a distinctively anti-representationalist way, the ontological pragmatist will be able to show us why mainstream ontology rests on a mistake.

As stated above, I think the ontological pragmatist can do all of this by employing the resources of Thomasson's metaontology. I'll now to turn to describing Thomasson's account in more detail.

3.4 Thomasson's metaontology — in depth

In the previous chapter, I described Thomasson as committed the following idea: close attention to our ordinary practice of making existence assertions reveals that many questions about the existence of numbers, properties, and other objects are *too easy to answer* to be the locus of serious metaphysical debate. To see why a *pragmatist* might be entitled to such an idea, it's worth delving into the details of Thomasson's view. In particular, her argument relies on a novel 'meta-linguistic' understanding of existence, as well as an account of the conditions under which singular and general terms can be said to apply. What I'll do in this section is describe these details in order to use them in the construction of a pragmatist approach to ontology.

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metaphysics, for ordinary speakers typically don't assert such things. In response, the fact that ordinary speakers don't often make such assertions can be explained by the fact that ordinary speakers take the truth of these claims to be so *obvious* that they don't typically need asserting. This is something to be expected if we go in for the kind of easy ontology my pragmatist will go in for.

In addition, while speakers may not often make these existence claims, we *can* find ordinary contexts in which such assertions are made. Consider the following dialogue devised by Peter van Inwagen to argue for this point:

> 'You and I may be brothers, but no two people could be less alike. I have devoted my life to working for peace and justice, and your only goal in life is to get rich selling furniture.'

> 'What can I say? I deal in reality and you deal in dreams. Chairs exist. Peace and justice don't and never will.' (2014: 5)

Therefore, while ordinary conversational contexts like these may not be immediately apparent, it's safe to say that ordinary speakers *can* make these claims outside of purely metaphysical contexts.

1. *The meta-linguistic analysis.* To start off, Thomasson rejects the idea that the word 'exists' should be understood in terms of its naming some substantive property or activity had by an object.[12] For example, she rejects the following definitions of existence:

Ks exist =$_{df}$

    — The Ks are causally efficacious, or

    — The Ks are part of the world's fundamental structure, or

    — The Ks are independent of our language and concepts, or

    — The Ks are the subjects of perception.[13]

Insofar as these views define 'exists' by telling about some substantive property or activity the word picks out, they are off the table.[14]

    Instead, Thomasson thinks we should understand existence 'meta-linguistically', by looking at how our use of 'exists' connects with other parts of our language. She begins by noting a connection between object-language existence claims and claims regarding the reference of a term:

  (S) Ks exist iff 'K' refers.[15]

Here the object-language claim — Ks exist — is said to imply the meta-language claim — 'K' refers — and vice versa. According to Thomasson, (S) squares well with our ordinary practice of making existence and non-existence claims. For example, if speakers deny the existence of dragons, they will typically take the term 'dragon' to fail to refer, and vice versa; if they accept the existence of chairs, they will typically take 'chair' to refer, and vice versa.

    However, in order for her metalinguistic account to provide a *non-circular* explanation of when it can be said that Ks exist, she needs to employ an account of when it can be said that 'K' refers without, first, appealing to the existence of Ks. To do this, Thomasson relies

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[12] See Thomasson's (2014: 192), for example.

[13] See Armstrong (1997), Sider (2011), Azzouni (2004), and Berkeley (1710), respectively, for views which arguably coincide with these definitions.

[14] See Thomasson (2015: 115-121) for arguments against definitions like these.

[15] See, for example, Thomasson (2008; 2014).

on the notion of an 'application condition' for a term.

2. *Application conditions.* What are application conditions? According to Thomasson, we can think of application conditions in the following way:

> [They are] certain basic rules of use that are among those that are meaning constitutive for the term ... [where] these establish certain very basic conditions under which the term will succeed or fail in referring, both in its initial grounding, and in subsequent attempts to use it referentially. (2015: 89 - 90)

Thomasson makes two claims here. First, the application conditions of a term 'K' are among those *uses* of 'K' which *constitute* its meaning. Thus, on Thomasson's account, application conditions are not only rules of *use* for a term 'K' — in the sense of being conditions under which speakers can apply the term — but are also those uses without which 'K' would no longer be meaningful (or would mean something different from what it actually means). Second, such uses are said to explain when it is that 'K' *succeeds or fails in referring*. Thus, on Thomasson's account, whether or not 'K' refers is to be explained in terms of the rules governing when 'K' can be correctly used or applied.

In addition, because Thomasson wants to provide an account of when a term 'K' has a use which allows it to successfully refer *without* deferring to the existence of the Ks themselves, she proposes the following further requirement:

> application conditions must not take the following form: 'K' applies iff Ks exist. (While this will always be true, it will not count as an application condition, in our terms). (2015: 96)

The question is: what sort of uses could explain when a term 'K' succeeds or fails in referring without first appealing to the existence of Ks?

To answer this, Thomasson takes advantage of the fact that our ordinary linguistic practice seems to license certain inferential uses which take us from a statement in which *no reference is made to an object of a certain kind* to a statement in which *reference does seem to be made to an object that kind*. For example, suppose that a speaker has grounds for commitment to the claim that

(3) There are two kangaroos.

Since 'two' only occurs as a determiner, (3) only quantifies over kangaroos and not the number two. Nevertheless, it would seem appropriate in our ordinary linguistic practice to infer that

(4) The number of kangaroos is two,

upon being committed to (3). But (4) now introduces the use of two new numerical singular terms: 'the number of kangaroos' and 'two' flanking the 'is' of identity. Thus, by the time we get to (4), it would appear that we are applying new terms to pick out a number — namely, the number two.

Such inferential uses would seem to have all of the features of an application condition for a term 'K', in Thomasson's sense. First, inferential uses like that from (3) to (4) sound almost redundant or platitudinous — they are the kind of inferential uses required in explaining to someone how to master the use of 'two' and so understand its meaning. Thus such inferential uses look like good candidates for being among those that are *meaning-constitutive* of the relevant term. In addition, these inferential uses would also seem to be ones in which speakers *introduce reference* to some new entity — the number two — by employing the new numerical singular terms in an identity statement. And, if that's true, then the inference from (3) to (4) is one in which we can explain when terms like 'the number of kangaroos' and 'two' refer, without first inquiring into whether or not the number two exists, since reference to the number two is introduced off the back of (3) which does not itself refer to or quantify over numbers. Thus, for Thomasson, the application conditions for a term 'K' will consist in those inferential uses which allow us to move from a statement which doesn't refer to or quantify over Ks to one that does.

In addition, with this understanding of application conditions on the table, allow me to describe a further feature that Thomasson takes these conditions to have. According to Thomasson, because the application conditions for terms like 'two' are to be understood as *meaning-constituting* uses, it is our '*mastery* of the relevant linguistic/conceptual rules governing the expressions used' that '*entitles* one to make the relevant inference using those expressions' (2015: 238). Thus, it is our *mastery* of the use of terms like 'two' alone which entitles us to make inferences like that from (3) to (4). And this, according to Thomasson, allows for conditionals like

(5) If there are two kangaroos, then the number of kangaroos is two,

formed out of these meaning-constituting inferences, to be thought of as *conceptual truths*. For, on Thomasson's account, having mastered the application conditions of 'two' and 'the number of kangaroos' we'll know that if we are committed to the antecedent, then we'll be entitled to the consequent, justifying our acceptance of the truth of (5) by using only our mastery of how to apply the appropriate terms. In this sense, conditionals like (5) are, in Thomasson's words, merely 'articulations of the rules of use' (2015: 152) for the relevant terms.[16]

Thus, the application conditions for a term 'K' are to be thought of as (i) meaning-constituting rules of use, (ii) explanatory of referential success or failure, (iii) as not requiring deference to the existence of Ks, and (iv) as often issuing in conceptual truths.[17] Notice that a variety of different kinds of terms can plausibly be said to have similar application conditions, in the sense just described. For example, upon being committed to the claim that 'That sweater is red', which makes no reference to *properties*, a speaker may thereby be entitled, on the basis of her linguistic competence, to infer 'That sweater has the property of being red' which *does* makes reference to a property. Likewise, speakers seem to be licensed to move from 'They started fighting' to 'A fight broke out' and thereby refer to an event from an event-free statement. And in any situation in which a speaker may claim that there are particles arranged table-wise, a speaker will be able to infer that 'table' applies and so claim that those are tables. Application conditions for terms like 'dragon', which *fail* to refer, can be thought of as those inferences which *would* commit a speaker to a sentence in which 'dragon' applies — for example, the condition in which a speaker is committed to there being a fire-breathing winged lizard — even though those conditions don't actually obtain.

3. *The meaning of 'exists'*. With the notion of an application condition in place, I can

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[16] As we'll see, sometimes knowing whether or not a term applies will require some empirical investigation, but I highlight the sense in which application conditions issue in conceptual truths here because these conceptual truths are almost always employed in the easy arguments Thomasson wages against mainstream ontology.

[17] I'll be employing these four features in my construction of a pragmatist account of ontology later on. However, I should also note that application conditions exhibit the following *further* features as well: (5) they are rules of use which needn't take the form of necessary and sufficient conditions and needn't be explicitly statable, (6) they are not merely conditions under which a speaker has *evidence* that a term applies, but those in which it is *correct* to apply the term, and (7) they needn't be descriptive and may occasionally involve deference to experts or the world (2015: 89-96).

now provide Thomasson's official account of 'exists'. First, notice that Thomasson can now employ this notion to explain when a term 'K' refers along the following lines:

(R) 'K' refers iff the actual application conditions for 'K' are fulfilled.

Here the right-hand-side of the schema is taken to explain the left-hand-side. Furthermore, recall that one purpose of introducing the notion of an application condition was to provide a *non-circular* explanation of 'exists'. We are now in a position to provide this. We simply drop talk of reference in (S) — that Ks exist iff 'K' refers — and swap if for talk of application conditions. Thus, Thomasson's official account of the meaning of 'exists' is provided by a 'core rule of use' (2015: 83) codified by the following schema:

(E) 'Ks exist iff the application conditions actually associated with 'K' are fulfilled.' (2015: 86)

Here, (E) is taken to tell us *everything* we need to know about the *meaning* of 'exists'. And notice that, since Thomasson's understanding of application conditions requires that they need not defer to the existence of the Ks themselves, she has provided an account of what 'exists' means without a prior understanding of whether or not properties, numbers, tables and chairs, and other kinds of entities exist.

To complete the account, Thomasson provides an explanation of *why it is* that speakers have the expression 'exists' in their language, rather than simply making metalinguistic claims about the application of terms. To this, Thomasson provides the following answer:

> One important use of the concept of (non)existence may be that it enables us to call attention to certain kinds of mistake, while remaining in the object language. For it is far more natural to most speakers to use the object language than to shift to a metalanguage in which we explicitly talk about whether certain concepts or terms refer. (2014: 199)

Thus, according to Thomasson, a mother can more conveniently correct a child's mistaken (implicit) assumption that 'The boogey-man' applies by making an object-language claim: 'The boogey-man doesn't exist'. Likewise, she might more conveniently correct her nominalist's son's (implicit) assumption that 'the number two' doesn't apply by making the object-language claim 'The number two exists'.

With the notion of an application condition and her meta-linguistic account of existence on board, we are able to see why Thomasson claims that it is very easy to answer many ontological questions. Suppose that two mainstream ontologists are arguing over the existence of numbers. Notice, that both mainstream ontologists will be entitled to the claim 'There are two kangaroos', since this claim does not refer to or quantify over numbers. But now, if both parties have mastered the use of numerical terms, then they'll know that it is a conceptual truth that 'the number of kangaroos' and 'two' actually apply in the sentence 'The number of kangaroos is two'. And given (E), it now trivially follows that the number two exists, for the actual application conditions for 'two' have been fulfilled. It therefore trivially follows that numbers exist from an uncontroversial premise in such a way that speakers only need to employ their linguistic competence and perhaps a bit of empirical inquiry.

Later on I'll be more explicit about the differences between this easy approach to ontology and mainstream ontology as it relates to pragmatism. But now allow me to turn to the project of arriving at ontological pragmatism through the details of Thomasson's account.

3.5   Easy ontology and linguistic priority

My general argument for the claim that our *pragmatist* can answer existence questions by taking advantage of Thomasson's account consist in a series of arguments to the effect that the details of Thomasson's view can be thought of as subscribing to both linguistic priority and anti-representationalism. The argument that these ideas adhere to linguistic priority is more straightforward than the argument that they adhere to anti-representationalism. So allow me to get linguistic priority out of the way.

Let's start with Thomasson's account of existence in terms of schema (E). Recall that linguistic priority amounts to starting with an interest in explaining linguistic, rather than worldly (or otherwise non-linguistic) phenomena. In the case of existence, one form this could take is to explain *ascriptions* of 'exists', rather than the property or activity had by existing objects. Since Thomasson rejects the idea that our theory of existence should tell us what it is to exist — what kind of property or activity of objects existence might consist

in — she thereby cuts herself off from these material questions altogether. Instead, on Thomasson's account, (E) is supposed to explain when speakers can correctly make an object language claim — 'Ks exist' — just in case a claim in the metalanguage — 'The actual application conditions for "K" are fulfilled' — holds. This is to provide an explanation of when a speaker can correctly be said to ascribe the expression 'exists', in a way that contrasts with providing an explanation of any non-linguistic phenomena. Therefore, Thomasson's use of (E) adheres to linguistic priority.

Similarly, by employing the notion of an application condition, Thomasson isn't interested in theorising about material phenomena like the natures of numbers, properties, or ordinary objects. Instead, she concerns herself with questions about what is distinctive of the *terms* used to describe such objects. After all, application conditions are supposed to explain how terms like 'The property of being red' are used, how they acquire meaning, and in what circumstances speakers can correctly take such terms to refer — and these are all *linguistic*, rather than material phenomena. Therefore, like pragmatists more generally, Thomasson starts with an interest in linguistic, rather than material, questions — in this case, with an interest in explaining various phenomena associated with singular or general terms.

Thomasson's account is therefore best thought of as an attempt to explain what is distinctive of, what we might call, ontological *language*, rather than any material phenomena associated with ontology. In this respect, Thomasson starts in exactly the same location the ontological pragmatist will want to start from. In a sense, we're halfway home.

3.6 Anti-representationalism and application conditions

But the rest of the road is more winding. The case that really needs to made is that Thomasson's account *coheres with anti-representationalism*, in the sense described above. I'll start my case by focusing on application conditions. In the discussion of Thomasson account above, I focused on *four* features of her conception of an application condition. To keep them clearly in mind, I'll list them as the following:

The application conditions for a term 'K'...

(A) are basic, meaning-constituting, rules of use,

(B) often make it a conceptual truth that 'K' applies if its conditions obtain,

(C) need not defer to the existence of the Ks themselves,

(D) explain when 'K' succeeds or fails in referring.

My argument will center around these features, claiming that each of them can be used to construct pragmatist explanations of the meaning and reference of singular and general terms. In particular, my strategy will be to construct EMUs for two kinds of terms — numerical singular terms and general terms for ordinary composite objects — by employing each of these features. While I think that similar accounts can be made for other kinds of terms, my goal is only to explain how a pragmatist can take advantage of Thomasson's application conditions in constructing their account. An exhaustive specification of *all* the terms speakers use to pick out objects will have to be left for further research.

3.6.1 EMUs for singular and general terms

The first claim I want to make is that Thomasson's understanding of application conditions in terms of (A) and (B) can play a role in specifying an account of the *rules of usage* taken to explain the meanings of numerical and ordinary object terms. In particular, the fact that application conditions adhere to (A) allows them to be able to figure in explanations of what patterns of usage *constitute* the meanings of singular and general terms — for example, along the lines of (I-T) in the EMU for 'true' above. Likewise, the fact that application conditions adhere to (B) allows them to figure in explanations of the *epistemology* of such uses — for example, along the lines of clauses like (E-T), again, in the EMU for 'true' above. After all, (A) says that application conditions are *meaning-constituting rules of use* and (B) tells us that speakers can often know that a term 'K' correctly applies on the basis of their linguistic competence. This maps exactly onto the role of clauses like (I-T) and (E-T) in a pragmatist EMU.

However, because application conditions are an account of what circumstances a term can be said to correctly *apply*, (A) and (B) can only be said to *partially* figure in an explanation of the meanings of singular and general terms. As Brandom claims of the kind of inferentialist account of meaning our pragmatist is working with:

the use of any linguistic expression or concept has two aspects: the *circum-*

stances under which it is correctly applied, uttered, or used, and the appropriate *consequences* of its application, utterance, or use. (2000: 62)

Therefore, in order to more fully specify the inferential uses characterising the meanings of numerical and ordinary object terms, I will supply inferential *consequences* as well. However, we must also be aware that a *full* specification of the use of any vocabulary item is often a messy affair. There may be many different uses associated with our terms in a linguistic practice. To counter this messiness, I'll claim that the EMUs provided here specify some of the 'canonical' or 'core' usage rules for numerical and ordinary object terms, in the sense that anyone who *fails* to use these terms in the way specified by the EMU will no longer be counted as a competent user of such terms, by the lights of the ontological pragmatist.

1. *Usage rules for numerical terms.* Let's start with numerical singular terms. The first thing to note is that, since Thomasson conceives of the application conditions for terms like 'two' and 'the number of kangaroos' as those in which speakers are entitled to infer from 'There are two kangaroos' to 'The number of kangaroos is two', the application conditions for these terms would seem to work on analogy with the kinds of inferential uses the pragmatist employs to to explain the meaning of the truth-predicate. In fact, Thomasson herself makes this analogy:

> [T]o the extent that it sounds redundant in English to say 'there are five stumps *and* the number of stumps is five', being committed to the first claim does seem to commit one to the second, and so to there being a number. Similarly, being committed to 'Snow is white' does seem to commit one to accepting 'The proposition that snow is white is true'. (2015: 190)

A natural thought therefore is that the pragmatist might explain the usage of numerical singular terms on analogy with the minimalist EMU for 'true'. In particular, since the meaning of 'true' is codified by those uses which adhere to the schema

(T) The proposition that p is true iff p,

we might say, on analogy, that the core uses of numerical terms are those codified by the the following schema:

(N) There are n xs iff the number of xs = n,

where 'n' is to be replaced by a numerical expression. While (N) isn't meta-linguistic like (T), in both cases the schema is employed to codify the kinds of back and forth inferential uses which may be said to constitute the meanings of the relevant expressions.

Notice that by saying that our use of numerical terms corresponds to (N), the pragmatist will not only be able to specify the circumstances in which a speaker is entitled to apply a numerical singular term, but also the *consequences* of applying these terms: namely, that inferring the other way around from 'The number of kangaroos is two' to 'There are two kangroos' is also always good. And, in keeping with the analogy, it's natural to think that such inferential uses are also *material, intra-linguistic* ones. After all, the conditions of application for numerical terms cannot be language-entry moves, since there are no plausible environmental or stimulatory conditions prompting the application of a numerical term. Numbers don't offer us the required environmental or causal stimulation given that they are abstract objects.

Likewise, similar to Williams' (E-T) clause for 'true', the pragmatist might take a speaker's knowledge that such back and forth inferences hold to be primitively acceptable *a priori*, requiring no more justification than having mastered the use of such terms as adhering to (N). And note that this hooks up with (B): that the application of a given term will issue in a conceptual truth if its application conditions obtain . For any inference from the left to the right-hand-side of (N) is now justified merely in virtue of our mastering the use of numerical singular terms.

For these reasons, a pragmatist might take the canonical EMU of the rules of usage for numerical singular terms to consist in the following two clauses.

1. (I-N): A *material inferential* (intra-linguistic) component. The inference from 'There are two kangaroos' to 'The number of kangaroos is two' and vice versa, is always good; the inference from 'There are five stumps' to 'The number of stumps is five', and vice versa, is always good, and so on.

2. (E-N): An *epistemological component*: Such inferences are primitively acceptable (a priori). Competent speakers take these inferences to issue in *conceptual truths* on the basis of their linguistic competence alone.

The idea is that the meanings of numerical singular terms are constituted by the following practice. We start by counting various objects and then introduce numerals as singular terms off the back of these counting practices, knowing that we can use such terms to move back to the original counting claims. Why speakers would conform to *these* patterns of usage will be taken up in the next section. But notice that we've now provided an EMU for numerical singular terms which allows Thomasson's application conditions for figure in (I-N): the application conditions are those uses which introduce a numerical singular term thereby partially constituting the meaning of the term. Likewise, the pragmatist can now use (E-N) to tag along with Thomasson in holding that these application conditions issue in conceptual truths.

2. *Usage rules for composite ordinary object terms.* Employing application conditions to construct EMUs for general terms like 'table' and 'cup' are more complicated. The reason is that the circumstances in which a speaker is entitled to apply these terms would seem to take the form of a *language-entry* rule in which a speaker is prompted by a table or a cup in their environment. If true, we have two problems. First, this would seem to conflict with (B) since whether or not there is a table or cup in the environment could only be justified empirically, rather than conceptually. Second, this also seems to conflict with (C) because the environmental conditions would seem to be just those in which there are tables and cups, thereby forcing us to defer to the existence of tables and cups in formulating the application condition.

However, Thomasson notes that we don't *need* to specify these environmental circumstances in a way that requires us to describe them as containing tables and cups. As she claims:

> [E]ven if one lacked a term 'cup', but instead (with the eliminativist) merely used such phrases as 'there are particles arranged cup-wise', one could perfectly well introduce a term 'cup' as follows: if there are particles arranged cup-wise, we are entitled to infer 'there is a cup-wise arrangement of particles', and so infer 'there is a cup'. (2015: 106 - 107)

Her thought is that we can introduce the application conditions for 'cup', using the language of the eliminativist, as those circumstances in which there are particles arranged cup-wise.

This allows for the following solution. The ontological pragmatist can concede that we initially learn how to apply terms like 'cup' ostensively in certain environmental conditions — conditions like *this* or *that*.[18] This results in a language-entry rule in which speakers can assert sentences like 'Those are cups'. However, as Thomasson claims, we don't *need* to state these application conditions in a way that defers to cups. For those same circumstances will also always contain particles arranged cup-wise. And the eliminativist herself will concede that any environmental circumstances in which there are particles arranged cup-wise will be precisely those environmental circumstances in which ordinary speakers typically apply the term 'cup'. After all, this is what allows the eliminativist to paraphrase those situations in which ordinary speakers use 'cup' into those in which we describe the world as containing particles arranged cup-wise.[19] But since any situation in which there are particles arranged cup-wise will be one in which ordinary speakers will apply the term 'cup', we'll be entitled to the inference from 'Those are particles arrange cup-wise' to 'Those are cups' on the basis of *our mastery of the use* of expressions like 'cup' and 'particles arranged cup-wise', knowing that the former can be applied wherever the latter can be applied. Thus, in stating the application conditions this way, we'll thereby satisfy (B). In addition, it is now possible to articulate the application conditions for terms like 'cup' without deferring to the cups themselves, thereby satisfying (C).

We can therefore distinguish two sorts of usage rules for terms like 'cup'. On the one hand, if we are trying to specify how ordinary speakers typically apply the term, then the pragmatist can say that the application consists in a *language-entry* rule in which speakers are prompted by a given environmental situation. These uses are then justified and open to rebuke on empirical grounds. On the other hand, if we are working with an eliminativist language and describing the relevant environmental situation as one in which there are particles arranged cup-wise, then, given our prior understanding that 'cup' can be applied whenever 'arranged cup-wise' can be applied, we are entitled to make an *intra-linguistic, material inference* from 'Those are particles arranged cup-wise' to 'Those are cups'. More generally, by mastering the use of 'particles arranged F-wise' and a general term like 'Fs', we'll know that claims of the form

(O) If those are particles arranged F-wise, then those are Fs.

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[18] Thomasson (2015: 92-93) acknowledges this.

[19] That is how the eliminativist claims to be entitled to account for all the explanations we employ in ordinary language or science when using terms like 'cup'.

are conceptual truths, where '*F*' is replaced by a composite object expression. We are thereby able to see how the application conditions that Thomasson relies on can play a role in specifying the usage rules for ordinary object terms.

However we specify the way in which 'cup' is introduced, *once* it is introduced the *consequences* of applying it will be the same. For example, upon saying 'This is a cup' a speaker should be able to infer any number of inferences like 'This can be used for drinking' or 'This can be held in my hand'. These inferential consequences are material, intra-linguistic inferences which, unlike the other material inferences we've discussed, may be open to justification or repudiation on *empirical* grounds. After all, mastering such inferences consists in being able to infer different properties of cups and such properties cannot simply be known *a priori*.

At this point, I'm in a position to specify the usage rules for general composite ordinary object terms in a canonical EMU.

1. (I-O): The meanings of general terms like 'cup' and 'table' are constituted by the following sorts of circumstances and consequences of application:

    (a) The circumstances sufficient to apply such terms are either

        (1) A speaker's being warranted in asserting 'Those are cups' or 'Those are tables' as a *language-entry* rule by being prompted by certain environmental conditions, or

        (2) By making material, intra-linguistic inferences like those from 'Those are particles arranged cup-wise' to 'Those are cups'; or from 'Those are particles arranged table-wise' to 'Those are tables', etc.

    (b) The consequences of applying such terms consist in our ability to infer from 'Those are cups' to 'Those can be used for drinking'; from 'Those are tables' to 'Those can be dined upon', etc.

2. (E-O): The *epistemology* of these uses consists in:

    (a) If an application of the general term consists in a language-entry rule, then it may be justified or open to repudiation on *empirical* grounds, but

    (b) If the application of the general term consists in an intra-linguistic material inference, then such inferences issue in conceptual truths.

(c) The inferential consequences of applying a general term for a composite ordinary object will, in either case, be justified or open to repudiation on empirical grounds.

Therefore, once again, Thomasson's application conditions for ordinary object terms can figure within a pragmatist EMU — in clauses (I-O)-(2) and (E-O)-(b) to be precise.

To sum up, what I've shown is that we can provide pragmatist EMUs for numerical singular terms and general ordinary object terms by making use of Thomasson's understanding of application conditions in light of (A) and (B). And this is just to say that we can employ Thomasson's application conditions to *explain the meanings of these expressions in terms of their rules of usage*. Surely this is something our pragmatist will be happy with.

3.6.2   Anti-representationalism and reference

Let's now turn from issues of meaning, to those of reference. I'll make two points. First, employing Thomasson's notion of an application condition in the EMUs above *helps prevent the EMUs from lapsing into representationalism*. This is due to Thomasson's construal of application conditions in light of (C). Recall that representationists make *essential* explanatory appeal to semantic notions like truth and reference. In the case of *terms* such explanations necessarily appeal to reference relations. For example, they'll say that the meaning and use of the term 'cup' is explained by the fact that it refers to all and only the cups. But notice that the EMU for a term like 'cup' *doesn't require* that there be a reference relation linking the term 'cup' and the cups themselves. After all, in principle, we could show someone how to use the term 'cup' without appealing to cups at all and instead describing the relevant conditions of application as those in which there are particles arranged cup-wise.

The same goes in the numerical case. If you want to explain to someone how to use the term 'two', you only need to appeal to a speaker's ability to count two *non-numerical* objects and show them that they can say that if there are two of these objects, then the number of these objects is equal to two, and vice versa. No reference relation between 'two' and the number two is required. Thus if the pragmatist goes along with Thomasson in endorsing (C), there is no need to appeal to referential relations in explaining the meaning of a given term at all.

The second point concerns whether or not the pragmatist should tag along with Thomasson and embrace (D) — that application conditions explain referential success. Recall that Thomasson claims that

  (R) 'K' refers iff the actual application conditions for 'K' are fulfilled,

where the right-hand-side *explains* the left-hand-side. Now, since application conditions are themselves rules of usage for a given term, it follows that to go in for (R) is to go in for an account which explains referential success *in terms of use*. In particular, (R) says that a term like 'two' refers in virtue of it being able to be correctly used in a material inference like that from 'There are two kangaroos' to 'The number of kangaroos is two'. Surely, this is consistent with and amenable to pragmatist explanations more generally.

In fact, it's difficult to see how the ontological pragmatist — *qua* someone who wants to avoid mainstream and other metaphysical approaches to ontology — could have it any other way. For example, any sufficiently explanatory account of our practice of using terms is going to have to be able to distinguish between those terms which refer and those which don't. For example, she'll have to explain why it is that within our linguistic practices 'dragon' fails to refer, while 'the Willis Tower' successfully refers. If she simply side-steps this issue, then she can't be providing a fully explanatory account of our linguistic practices. Explaining referential success is, in this sense, non-negotiable.

Now, suppose the pragmatist doesn't subscribe to (R). What are her options? As far as I can tell, the only *other* account of referential success would be the orthodox one which says, at a minimum, that 'K' refers iff Ks exist. But endorsing this account runs the risk of involving the pragmatist in unwanted metaphysics. Why? Suppose we want to know if 'cup' refers. Then the pragmatist will now have to tell us whether or not cups exist. But this begins to look like she'll need to start to do metaphysics, at least at some point. For even if she simply takes it to be obvious that cups exist, she'll have to *defend* her claim from the eliminativist who claims that cups don't exist and therefore that 'cup' doesn't refer. But by defending her claim, the pragmatist will have to wage arguments *for* the existence of cups. Moreover, it looks like she'll have to do this in order to provide an accurate pragmatist account of an obvious feature of our linguistic practice. This now begins to look precisely like the kind of situation the ontological pragmatist wants to avoid.

However, if the ontological pragmatist endorses (R), then she'll be able to explain whether or not 'cup' refers by theorising about the ways speakers use words, rather than

the state of the world that these words represent. For example, the ontological pragmatist could grant the eliminativist's paraphrase: that there are particles arranged cup-wise. But she'll then wield out the EMU for ordinary object terms to show that, since (R) explains when a term refers, 'cup' still applies and therefore 'cup' refers. For, if there are particles arranged cup-wise, the usage rules for 'cup' allow us to apply it in accordance with (O-I)-(2). And that clause is just a rule of usage. It is not a claim about the cups themselves or whether or not cups exist and, therefore, doesn't require any unwanted metaphysics. For this reason, pragmatists would do well to endorse Thomasson's account of referential success.[20]

To summarise, I've now used Thomasson's notion of an application condition to provide pragmatist accounts of the meanings of singular and general terms. In addition I've also argued that we can use application conditions to provide what is effectively an anti-representationalist account of referential success. Thus application conditions would seem to mesh very well with anti-representationalism.

3.7 How to do things with terms

However, the ontological pragmatist will also want to provide an account of these terms in light of their 'use as expressive function', not just their 'use as usage'. The question is: can we explain *why* singular and general terms instantiate the patterns of usage described above with respect to some kind of practical advantage gained on the part of a speaker? If we can provide answers here, then we'll have full EMUs for the relevant singular and general terms.

I think we can. In fact, Thomasson does as well. Consider the following passage:

> The deflationist is the friend, not the foe, of acknowledging functional plu-
> ralism about language. The deflationist's claim is emphatically not that such
> terms are introduced to track preidentified entities (or entities singled out
> through ostension), but rather that, once introduced, they enable us to ac-
> quire reference to abstract entities ... [T]he deflationist acknowledges that

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[20]See Burgess (2015) for another argument in the spirit of this one.

noun terms referring to numbers and properties may indeed have rather different functions than noun terms referring to people and frogs, though this does not interfere with the idea that terms of both sorts refer. (2015: 285).

Thus Thomasson claims that her view is compatible with the kind of functional pluralism I identified as typical of pragmatist explanations. What I want to do here is provide some plausible expressive functions that the terms above might have. This is important for two reasons. First, functional pluralism is an important theme in contemporary pragmatism. By providing some plausible pragmatic reasons why speakers would use numerical and ordinary object terms in a way that meshes with Thomasson's understanding of the application conditions, I'll thereby be able to better reveal how Thomasson's approach works well with this important pragmatist theme. Second, doing so will allow me to complete the pragmatists EMUs for numerical and ordinary object terms. This will allow us to have some *concrete examples* of how an ontological pragmatism might work in specific ontological debates.

1. *The function of numerical terms.* Suppose numerical singular terms are meaningful in virtue of being caught up in the inferential uses specified by (I-N) above. The question is: why would speakers make inferences which accord with (I-N) in the first place? In particular, why is it that speakers introduce numerical singular terms into their language, rather than merely going around counting kangaroos, but never asserting sentences like 'The number of kangaroos is two'?

One possible explanation is due to Yablo (2001; 2005) and Melia (1995).[21] Their thought is that numerical singular terms function as *representational aids* in the sense that they allow us to communicate counting facts that we couldn't otherwise express. If true, having numerical singular terms in a language provides speakers with a practical advantage — allowing them to do something they couldn't otherwise do. An initial thought is that we can co-opt such an account to explain why it is that speakers use numerical singular terms in a way that accords with (N-I) above, thus explaining the way numerical singular terms behave in inferences by citing a pragmatic advantage gained on the part of the speaker.

To illustrate, suppose that a speaker makes the following claim:

(6) The number of kangaroos is greater than the number of wallabies.

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[21]Thomasson (2015: 205) herself claims that easy ontology is compatible with this kind of account.

As Yablo and Melia have pointed out, by asserting (6) a speaker is now able to do something they wouldn't otherwise be able to do: they can now express an infinite disjunction of counting facts about kangaroos and wallabies in a finite way. We can show that such a claim holds if we assume that the meanings of numerical singular terms are constituted by a rule allowing us to make material inferences according to (N) above. For example, given that speakers use terms like 'the number of kangaroos' and 'the number of wallabies' in a way that accords with (N), they can reason their way backward from the application of such terms in (6) to the acceptance of the following infinite disjunction:

> (7) Either there's one kangaroo and zero wallabies or two kangaroos and one wallaby or three kangaroos and two wallabies or four kangaroos and three wallabies ...

Speakers will therefore know that (7) hold if (6) holds. However, (7) is not fully assertible by human beings, while (6) certainly is. Therefore, by employing numerical singular terms in a way that accords with the relevant usage rules, speakers greatly increase their expressive power. For they can now communicate that (7) holds by wielding a single sentence. In fact, as Yablo (2005) has argued, the fact that our use of numerical terms comes with this practical advantage may be indispensable to the formulation of our scientific theories.[22]

Such an increase in expressive resources amounts to a *practical* advantage gained by the speaker, thereby making sense of our practice of using numerical singular terms as opposed to merely asserting various counting facts about physical objects. We can therefore combine (I-N) and (E-N) above with

> 3. (F-N): A *functional component*. Numerical terms are important as representational aids. Wielding such terms enables us to express counting facts that it would be difficult for us to otherwise express (for example, enabling us to communicate certain infinite disjunctions in a finite fashion).

And this provides the ontological pragmatist with a full EMU for numerical singular terms. In effect, what we have done is employ (I-N) and (E-N) to specify the inferential patterns of usage constituting the meanings of numerical singular terms. We then employ (F-N) to explain and justify why it is that speakers conform to such inferential uses by showing

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[22] The example of (6) is mainly illustrative, for there may be other ways to indicate facts like (7). However, this isn't the case in scientific contexts where the use of numerical terms does seem to be required to indicate infinite amounts of physical information. I'll discuss this more in chapter 5.

that they have practical reasons to do so. In this sense, the account of the usage rules for numerical singular terms above is perfectly compatible with an account of the expressive function of such terms.

2. *The function of ordinary object terms.* Why is it that speakers apply an ordinary object terms like 'cup' in certain environmental and stimulatory circumstances when they could equally well apply the phrase 'particles arranged cupwise' in those same circumstances? Is there any practical justification here which doesn't bottom out in it being useful to be able to refer to cups? Interestingly, the pragmatist may appeal to Quine here. Consider the following passage:

> We have seen how identity and ostension have combined in conceptualising extended objects, but we have not asked why. What is the survival value of this practice? ... [W]e gain formal simplicity of subject matter by representing our subject matter as a single object ... instead of a multiplicity of objects *a, b, c,* etc. [being arranged cupwise]. The expedient is an application, in a local or relative way, of Occam's razor: the entities concerned in a particular discourse are reduced from many, *a, b,* etc., to one ... Where what we want to say about certain broad surfaces does not concern distinctions between their parts, we simplify our discourse by making its objects as few and as large as we can — taking the various broad surfaces as single objects. (1950: 69 - 70)

Quine's thought is that, while we could have gone around describing our surroundings as consisting of particles being arranged in various ways it is much more convenient for communicative purposes to introduce terms like 'cup' or 'table' which represent these particles as a single object. For often times what we want to say about our surroundings has nothing to do with distinctions between the particles themselves. If, for example, I want more coffee, it simplifies matters to neglect talk of particles and make use of a term 'cup' so that I and other speakers can focus on that section of my environment.

What Quine is offering us here is again a *practical reason* why speakers would choose to employ composite object terms like 'cup' or 'table', rather than simply describing the environment in terms of non-composite particles arranged in various ways. Such terms make for more expedient and focused communication.

We can now round out the EMU for composite object terms like 'cup' and 'table'.

3. (F-O): A *functional component*: Composite ordinary object terms are useful in allowing for more expedient communication of our surroundings, especially when what speakers what to communicate has nothing to do with distinctions between simple particles.

Therefore it is even possible for the ontological pragmatist to provide practical reasons for going in for such humble terms as 'cup' and 'table' in a way that does not bottom out in saying that such terms are used to refer to various objects.

Now that I've offered these two possible functional explanations, let me make two points of clarification. First, suppose the ontological pragmatist accepts both practical explanations. Then it immediately follows that she's a functional pluralist. In particular, she will be a functional pluralist about *singular and general terms*. For example, we can think of the functional pluralist's task along the following lines outlined by Huw Price:

> [That of explaining] the role the different language games play in our lives
> — what differences there are between the functions of talk of value and the
> functions of talk of electrons, for example. (2004: 199)

Thought of this way, the ontological pragmatist ends up being involved in precisely the same project. However, the ontological pragmatist takes *special concern* to mark the differences between the roles that different *terms* play in our lives, rather that of entire 'language games'. In this sense, ontological pragmatism hooks up nicely with functional pluralism.

Second, it's important to stress that endorsing these explanations is not in any way incompatible with the claim that both numerical and ordinary object terms *refer*. This might seem paradoxical at first. After all, if each term is capable of referring, then don't they all have the *same* function — that of *referring to objects*? However, this worry conflates two distinct aspects of the pragmatist's explanation of numerical and ordinary object terms. On the one hand, the ontological pragmatist offers an account of the rules of usage which explain when it is correct to apply numerical and ordinary object terms. Such rules of usage are said to explain whether or not the term succeeds or fails in referring. In particular, with Thomasson, the ontological pragmatist will claim that a singular or general term 'K' refers just in case it's actual application conditions are fulfilled. In this sense, numerical,

ordinary object, and other terms can all be said to refer or fail to refer, insofar as they have correct or incorrect applications.

On the other hand, in offering an account of the expressive functions of our terms, the ontological pragmatist offers a justification for *why we would adopt these usage rules for our terms at all.* In other words, the pragmatist's functional explanations serve to explain why it is that we have a given application condition for a term at all. And it is only *once* the terms are in place with their associated application conditions, that we can so much as say whether or not the terms refer or fail to refer. Thus the account of the reference of a term and the account of a term's expressive function occur at two different levels of explanation. For this reason, the pragmatist can say that there are many different practical reasons which explain why speakers apply terms in certain ways, on the one hand, and, on the other, say that once speakers have these terms in their language, they can either succeed or fail in referring.

3.8   'Existence' — what's the use?

Finally, let's turn to Thomasson's account of existence and see if we can construct an anti-representationalist EMU from it. Recall Thomasson's claim that the meaning of 'exists' is fully captured by the following schema:

(E) Ks exist iff the actual application conditions for 'K' are fulfilled.

There's a strong case to be made that (E) coheres with anti-representationalism. To start, consider the way Thomasson suggests we should think about this schema.

> The right way to express the view is not as a view about what the true content
> of existence claims is, but rather a view about the fundamental rule of use for
> 'exists' — just as in the equivalence schema that (according to the deflationist
> about truth) connects 'The proposition that snow is white is true' and 'Snow
> is white' does not entail that 'Snow is white is *about* a proposition, rather
> than being about snow. An equivalence schema involving 'exists' need not
> be taken as reporting a synonymy. Instead, schema (E) demonstrates the
> connection between the rule of use that enables us to move up and down
> the semantic slide, from *mentioning* terms and evaluating whether their

application conditions are fulfilled, to *using* those terms in talking about whether or not entities of the sort exist. (2015: 87)

The first point is that Thomasson understands (E) on analogy with 'deflationary' or 'minimalist' accounts of truth. Recall that, on Williams' formulation, such a theory is a *paradigm instance* of anti-representationalism. Since (E) is to be understood on analogy with a paradigm instance of anti-representationalism, we should expect (E) to fit with anti-representationalism too.

Second, by making an analogy with minimalism, Thomasson claims that (E) is not to be thought of as making 'exists' *about* the application of a term. Instead, it merely demonstrates the 'rules of use that enable us to move up and down the semantic slide'. By rejecting the idea that (E) tells us *about* something, she moves away from the idea that 'exists' should be understood in terms of representation. Furthermore, by endorsing the idea that (E) demonstrates the *rules of use* for 'exists', she embraces the idea that the meaning of 'exists' consists in its use, rather than any representational relations. These are just two sides of the same anti-representationalist coin.

Thus (E) seems to mesh well with pragmatism more generally. Let's try to hammer this home by constructing an EMU for 'exists'. Unfortunately, for reasons that will become clear, the EMU won't correspond exactly to something as simple as (E). But it will be firmly within the spirit of Thomasson's view.

1. *Existential introduction*. Let's look at the kinds of inferences allowing a speaker to *introduce* an existence claim. According to (E), this is just when 'K' applies. However, we'll get *different* existence claims depending upon whether we are working with singular or general terms. For example, if the application conditions of a *singular* term like 'two' are fulfilled, then we'll have successfully referred to that *one* number and thereby be able to conclude that there exists something that is the number two. More schematically,

$(E_s$-in) If the actual application conditions for 'k' are fulfilled, then there exists something identical to k.

But if 'K' is a general term like 'table', then we'll have successfully referred to a *range* of objects thereby enabling us to conclude that there are tables. More schematically,

$(E_g$-in) If the actual application conditions for 'K' are fulfilled, then Ks exist.

In addition, because we are trying to specify *inferential* uses, we'll need to talk about a term 'K' applying within a claim that can serve as the premise or conclusion of an inference. We've been working with these kinds of applications all along. They are just those applications in sentences like 'The number of kangaroos is two' and 'That's a table'. A natural way to specifying these uses would therefore be to say that they are *intra-linguistic, material inferences*: from 'The number of kangaroos is two' to 'There exists something that is the number two', and from 'Those are tables' to 'Tables exist', and so on. Furthermore, in keeping with the analogy between minimalism about truth and (E), we might say that such inferences are primitively acceptable *a priori*: they issue in conceptual truths. Thus once you know that a term has applied, you'll know everything you need to know to make the relevant existence claim.

These moves should be uncontroversial provided that the pragmatist accepts Thomasson's account of referential success. For if we take 'two' to correctly apply in the sentence 'The number of kangaroos is two', then this is just what it is for 'two' to refer. And from there it can hardly be denied that the number two exits. The same goes for commitment to sentences like 'That's a table'. Since we've applied the term 'table', we've referred to a table. We'll thereby be entitled to conclude that there are tables. Thus the pragmatist would seem to be able to introduce existence claims in a way that accords well with Thomasson's schema (E).

Before going on to look at the *consequences* of making an existence claim, let me note that *we now have everything we need for a pragmatist to be entitled to Thomasson's easy arguments*. All the easy arguments Thomasson wages against the mainstream ontologist proceed by moving *from* claims in which a term applies *to* an existence claim. Therefore, as long as the pragmatist can secure these inferences, she'll be able to wage easy arguments against the mainstream ontologist too. I'll clarify this further in the next section, but now let's move on to considering when we can *eliminate* an existence claim — in other words, what inferential *consequences* follow from them.

2. *Existential elimination.* The material inferential consequences of being committed to a *singular* existence claim like 'There exists something which is the number two' are fairly straightforward. On the basis of something like (E) we can make a material inference from the existence claim to one in which we drop 'exists' and apply the term in a simple

predication — for example, 'Two is a number' or 'Two is even'. In these cases, the speaker will be able to infer these further sentences based on her *prior* understanding of the kinds of inferences she can make by applying the term in a sentence without using 'exists'. In the case of numerical terms, being able to infer claims like 'Two is a number' plausibly issue in conceptual truths. However, if we're working with ordinary object terms, whose properties are known empirically, then such inferences may be subject to justification or repudiation on empirical grounds. Therefore, knowing the consequences of being committed to an existence claim depends on the particular terms we're employing.

Things become more complex, however, if we consider what sorts of material inferences a speaker can plausibly make from a *general* existence claim like 'Tables exist'. The problem is that we can't just pick *any* sentence in which 'table' applies. For example, a speaker won't be able to infer 'The piece of furniture Alice bought is a table' from 'There exists a table', for Alice might have bought a chair instead. There's nothing about the general existence claim which allows us to infer any *particular* sentence in which 'table' applies, for general existence claims only tell us that there is *something* that is a table.

To handle these cases, let me suggest that we take advantage of the standard *proof-theoretic* elimination-rule for the existential quantifier. Schematically, it tells us to infer like this:

$$\frac{\exists x\,\mathrm{K}x \qquad \overset{[\mathrm{K}(\alpha)]}{Q}}{Q}$$

What the schema tells us is that, from a general existence claim like 'Tables exist', we can temporarily introduce an arbitrary name 'α' and *assume* that it names an object counting as a table, independent of our ability to pick out that *particular* object. After all, since we are committed to the existence of tables, we'll know — as Thomasson's schema (E) would predict — that 'table' applies in some particular instance, we just don't know what that instance is. So, suppose that α is a table. We can then infer a further claim from the hypothetical assumption — for example, that α has a flat surface — and infer some further sentence that does not mention α by name: that there is some table with a flat surface (with the assumption now being discharged). We thereby eliminate the original existence claim by inferring something further about that particular object, whatever it may be.[23]

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[23] This allows our pragmatist to avoid some other ways of thinking about existential quantification. For example, Brandom's (1994: 334 - 409) inferentialist account construes existential claims in terms of

In these cases we make use of our prior mastery of the consequences of using a general term like 'table' to derive further claims from the assumption. So the epistemology here will be similar to that of the consequences of asserting a singular existence claim, by tagging along with their prior inferential knowledge regarding what other kinds of claims we become committed or entitled to in making use of the general term. Again, if we're working with numerical terms, they'll plausibly issue in conceptual truths. But if we're working with ordinary objects, then we may need to justify these inferences on empirical grounds.

We are now in a position to lay out an EMU specifying the rules of usage constituting the meaning of 'exists'.

1. (E-I) First we have the following *intra-linguistic, material inferential rules* constituting the meaning of 'exists'.

    (a) For *singular* existence claims, the inference from 'The number of kangaroos is two' to 'There exists something which is the number two' is always good; the inference from 'That sweater has the property of being red' to 'There exists something which is the property of being red', is always good; and so on. Speakers are then licensed to infer further claims about the particular object they are committed to, based on their prior knowledge of how to use singular terms in sentences which don't contain the quantifier. For example, the inference from 'There exists something which is the number two' to 'Two is even' is good, and so on.

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substitutional quantification. Where ϕ is a formula, x is a variable, β is an individual term, and $\phi[\beta\backslash x]$ is the result of replacing β for every occurrence of x in ϕ, we can define a substitutional quantifier in the following way:

$\ulcorner \exists x \phi \urcorner$ iff, for some individual term β in the language, $\phi[\beta\backslash x]$.

While a substitutional account of the quantifiers can plausibly be used in a pragmatist account of meaning, it suffers from a number of drawbacks. First, some (Barcan Marcus, 1972) have employed substitutional quantification in order to *avoid* ontological commitments, whereas our pragmatist instead wants to take herself to be ontologically committed to numbers, tables, and other entities. In addition, there are cardinality issues resulting from the fact that we can make existence claims about objects for which we have no terms (Kripke, 1976) as well as about objects we could never specify with an individual term because we have no way of picking them out (van Inwagen, 1981).

(b) For *general* existence claims, the inference from 'Those are tables' to 'Tables exist' is always good; the inference from 'These are cups' to 'Cups exist' is always good, and so on. From a general existence claim speakers can hypothetically assume that, for example 'α is a table' and then employ their prior knowledge of how 'table's is used to infer some further claim: 'There is something with a flat surface'.

2. (E-E): An *epistemological component*: Inferences *to* an existence claim issue in *conceptual truths* — they are primitively acceptable (a priori). Inferences *from* an existence claim are justified on the basis of a speakers knowledge of how to use the singular or general terms prior to making the existence claim. As such they may issue in conceptual truths or be justified and open to repudiation on empirical grounds.

We now have a full characterisation of 'exists' in terms of its usage rules.

3. *The function of 'exists'.* Now, what practical reasons do speakers have for making these kinds of inferences? What is the function of existence claims? Recall that Thomasson has already provided an answer here: that they allow us to more conveniently correct mistaken assumptions about the application of a term, while remaining in the object language. Notice that the rules of usage described above rely on the the thought that, in order for a speaker to be entitled to these material inferences, the speaker needs to be in a position where she can *correctly assume* that the singular or general term applies. This is even the case when a speaker makes an inferences from a general existence claim. For in order for her to assume the hypothetical that α is table, she needs to be confident that the application conditions for 'table' are in fact fulfilled in some particular case.

The pragmatist can therefore coast in Thomasson's wake at this point and make the following claim about the function of 'exists'.

3. (F-E) By making both singular and general existence claims, speakers are able to more conveniently correct mistaken assumptions about the application of a singular or general term, while remaining in the object language.[24]

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[24]Just to note, this is likely only *one* practical role associated with existence claims. See Chapter 6 and my (2014).

We now have a pragmatist EMU for existence claims, in the spirit of Thomasson's account of existence. And notice that nothing in the EMU relies on representationalist assumptions. The entire explanation of our practice of making existence assertions is done by specifying various patterns of usage along with specifying the usefulness of having an expression in our language of that kind. Semantic notions like truth and reference play no explanatory role.

3.9   Existence questions in practice

This completes the project of using Thomasson's metaontological account to construct an explicitly pragmatist metaontology. I now want to turn to the project of describing how ontological pragmatism is a deflationary alternative to mainstream ontology. Since ontological pragmatism is just an explicitly pragmatist version of Thomasson's account, my arguments will follow her own. However, by presenting these arguments in my own way and making use of the EMUs described above, I'll be able to show exactly why those sympathetic to pragmatism will be entitled to the sort of metaontological deflationism that comes with embracing easy ontology. Here I'll describe how the way the ontological pragmatist handles existence questions contrasts with the way mainstream ontological debates are typically conducted.

Imagine a debate between two mainstream ontologists over the existence of numbers. On the one hand, we have the realist about numbers. She claims that numbers exist. On the other hand, we have the anti-realist about numbers, who claims that there are none. In the previous chapter, I described mainstream ontologists as adhering to four thesis: *methodology*, *theoreticity*, *materiality*, and *depth*. As such, our mainstream ontologists will assume that answering whether or not numbers exist should be decided upon by figuring out whether or not numbers must be quantified over in a best total theory of the world. Such an argument will require theorising about the world in such a way that it does not rely solely on considerations of linguistic competence or easily accessible empirical information. Instead, it will require figuring out whether or not quantification over mathematical entities can be paraphrased away without making our theory of the world less theoretically virtuous. Finally, however the details of the argument go, it will be presumed that the argument is not excessively easy to establish. Instead, answering whether or not there are

numbers will require the hard work of arguing over the viability of different paraphrase strategies and assessing them in light of the theoretical virtues.

The mainstream ontologists get down to work. The realist argues that whatever our best total theory is, current physics better be a part of it, and physics quantifies over numbers. The anti-realist pushes back by claiming that quantification over and reference to numbers is a dispensable convenience — we can paraphrase away all reference to numbers without loss of explanatory power or other virtues. The realist contests the anti-realist's paraphrase, and the arguments continue on and on.

Enter the ontological pragmatist, equipped with her favourite EMUs for numerical singular terms and the existential quantifier, respectively. She will be perplexed that the realist and anti-realist are arguing so vigorously over a question that has such an *obvious answer*. To suck the air out of the debate between the two mainstream ontologists, the ontological pragmatist confronts both parties and reminds them that *both* are entitled to the following claim:

> (8) There are two kangaroos.

Since (8) doesn't refer to or quantify over numbers, so the truth of (8) isn't under dispute.

The ontological pragmatist then teaches the two mainstream ontologists how numerical singular terms are used and how reference to numbers is secured given such rules of use within ordinary linguistic practice. For example, employing (I-N) in the EMU for numerical singular terms above, she'll claim that the material inferential rules constituting the meanings of the terms 'two' and 'the number of kangaroos' allows them, given (8), to apply the these terms to form the following sentence:

> (9) The number of kangaroos is two.

In addition, employing (E-N), she'll show them that they can know that if (8) is the case, then (9) is the case as a matter of conceptual truth. Knowing that (9) follows from (8) requires nothing more from them than their mastery of how to use numerical singular terms in accordance with the meaning-constituting inferences. So the ontological pragmatist will argue that both the realist and anti-realist should accept that (9) is true as well.

But now the ontological pragmatist will claim that both parties should also think they've successfully applied the terms 'two' and 'the number of kangaroos'. After all, being committed to (8) is enough to justify the application of these numerical singular

terms. And this, the pragmatist will tell them, is all it is to successfully refer to a number — namely, the number two. That is why, given (I-E) above, the inferential rules of use constituting the meaning of 'exists' then allow them to conclude that

(10) There exists a number — namely, the number two.

And, given (E-E), the ontological pragmatist will also insist that both mainstream ontologists should concede that the inference from (9) to (10) is conceptually valid since such an inference is constitutive of the meaning of 'exists'. But since (10) answers the question of whether or not there are numbers, the realist and anti-realist should now stop debating their original question.

The upshot is that the ontological pragmatist has settled the debate between the realist and the anti-realist in the realist's favour. What's happened is that the ontological pragmatist has shown that, by starting with an uncontroversial premise, both parties are able to use their linguistic competence and easily accessible empirical knowledge to conclude that reference to numbers can be secured and that such entities therefore exist. This entitles the ontological pragmatist to the claim that *there is no sense in going in for mainstream ontological debates*. Answering the existence questions in light of the EMUs characterising the relevant vocabulary items according to which ontological debates are conducted entails that answers to these questions are easily established in such a way that comparing paraphrase strategies in light of the theoretical virtues is simply irrelevant. By contrast, according to the ontological pragmatist, we can answer these existence questions in virtue of our linguistic competence and empirical knowledge once we've done the hard work of detailing the patterns of inference characterising our use of the relevant linguistic expressions. For these reasons the ontological pragmatist will think that the debate between these mainstream ontologists is misguided at every level.

3.10   The rejection of mainstream ontology

Of course, mainstream ontologists will protest at this. Perhaps they are right to. All the above argument shows is that the pragmatist can offer an *alternative account* of how it is possible to answer existence questions. But this doesn't provide an *argument against* either of the mainstream ontologists or the overall project they are engaged in. For example, our

realist mainstream ontologist might agree with the ontological pragmatist that numbers exist. However, she'll protest that the ontological pragmatist has merely offered *an additional*, though inconclusive, argument for the existence of numbers. According to our realist, the full argument for the existence of such things must also appeal to considerations regarding whether or not such entities must be quantified over our best total theory of the world. Our anti-realist, by contrast, will suggest that the fact that such entities *don't* need to be quantified over in the best total theory of the world, provides decisive considerations against the ontological pragmatist and her claim that such entities exist. In sum, both mainstream ontologists will claim that since there is no argument against mainstream ontology, it's still worthwhile for them to engage in mainstream ontological debates.

Here, I want to argue that the ontological pragmatist can, in fact, argue that mainstream ontology rests on a mistake. The gist of the argument is due to Carnap (1950/56) and the availability of this kind of argument to any kind of easy ontologist is emphasised by Thomasson (2009; 2015). What I want to do here is present the argument in a way that makes use of the pragmatist explanations of existential quantification and singular and general terms of the preceding sections. However, I don't take such an argument to be indisputable given that it relies on the assumption that the ontological pragmatist's explanations of the meanings of the vocabulary items employed in ontological debates are correct, and this can be challenged. The claim I want to make, however, is that *if* we adopt ontological pragmatism, then the pragmatist is entitled to an argument against the legitimacy of mainstream ontology.

Here's the argument. Start with the *truism* that assessing the truth or falsity of statements like 'The number two exists' or 'There are tables' requires that such statements can be *used in a way that is meaningful.* This is a truism in the sense that it simply requires such statements to be distinguished from gibberish. Sure, the world must be a certain way if 'There are tables' is true. But 'There are tables' must also have a meaning, otherwise we will have no idea what is being demanded of the world in making the statement.

The next step is to note that, for a pragmatist of any stripe, the meanings of statements like 'The number two exists' and 'There are tables' are constituted by the rules of usage speakers conform to when they assert such statements. So this step is just the assumption of a pragmatist theory of meaning for ontological statements. Ontological pragmatism specifies such rules of usage — in particular, those specified by (I-N), (I-O), and (I-E) above

in the EMUs for numerical terms, ordinary object terms, and the existential quantifier, respectively. Therefore, on the assumption of ontological pragmatism, it follows that meaningful uses of statements like 'The number two exists' or 'There are tables' are constrained by those patterns of use. If numerical terms, ordinary object terms, and the existential quantifier are not being used according to these specified uses, then, by the lights of the ontological pragmatist, they fail to be meaningful statements.

The third step is to acknowledge that, once such patterns of usage are adhered to, answering ontological questions in the way described in the previous section becomes unavoidable. This is because the easy arguments of the previous section merely apply such rules of usage once we've accepted the uncontroversial premise. Therefore, assuming that each of the mainstream ontologists takes themselves to be entitled to the uncontroversial premise, they cannot *deny* that the easy arguments are valid on pain of *also denying the patterns of usage constituting the meanings of the expressions they are using*. The easy arguments that the pragmatist deploys are therefore just the inferential uses which constitute the meanings of the expressions contained in sentences like 'The number two exists' and 'There are tables'.

However, in order for the mainstream ontologists to keep arguing over the existence of numbers and ordinary objects, they must take it to be the case the the easy arguments can be rejected. In other words, they'll have to assume that it is still an open question whether or not such objects exist. However, in rejecting the easy arguments they thereby reject the patterns of usage constraining the meanings of the expressions used to ask whether or not there are numbers and ordinary objects. But, because such patterns of usage are constitutive of the meanings of statements like 'The number two exists' and 'There are tables', in rejecting the patterns of usage, the mainstream ontologists *reject that which makes such statements meaningful*. Given the truism we started out with — that assessing the truth of an ontological statement requires such statements to be meaningful — it follows that, in denying the easy arguments, the mainstream ontologist can no longer ask after the truth-value of the relevant ontological sentences. If follows that there can be *no theoretical standpoint* from which a mainstream ontologist can deny that the easy arguments hold, at least by the lights of the ontological pragmatist. In this sense, the pragmatist theory of meaning combined with a simple truism can provide an argument against the possibility of mainstream ontology.

If we are spoiling for debate, then the only possible one, from the ontological pragmatist's point of view, concerns whether or not we should use terms like 'table', 'two' and 'exists' in accordance with the usage rules specified by their EMUs. And this will have to be a debate over the relative desirability of the practical reasons we have for using these terms at all. Such practical reasons are specified by clauses like (F-N), (F-O), and (F-E) in the EMUs above. So we'll debate over whether or not we want to speak a language in which, for example, numerical terms allow us to communicate counting facts that we couldn't otherwise express. This connects ontological pragmatism with Carnap's *pragmatic* external question detailed in the previous chapter. But just as Carnap claimed, these debates aren't the concern of the usual ontological debates. For those debates have been cut off by the pragmatist's theory of meaning.

3.11 Pragmatism, realism, and quietism

Allow me to finish this chapter by further clarifying the kinds of answers we get to existence questions if we endorse ontological pragmatism. In particular, I want to clarify the sense in which a pragmatist can be thought of as a *realist* about the existence of numbers, ordinary objects, and other entities, but also a *quietist* with respect to mainstream ontological debates.

The kind of realism we arrive at meshes with pragmatism more generally. Consider the following characteristic passage from Macarthur and Price.

> Our pragmatists are (normally) happy to stand with the folk, and to affirm the first-order truths of the domains in question — to affirm that there are beliefs, and values, and causes, and ways things might have been, and so on. What they reject is any distinctively metaphysical theoretical perspective from which to say more about these matters — that they do or don't *really* exist. (2007: 100)

The passage claims that pragmatists are typically *realists*, in the sense they take it to be true that there are such things as values, beliefs, causes, and ways things might have been. Yet, according to the passage, they don't take this realism to consist in any distinctively *metaphysical* theoretical perspective. In fact they *reject* any such perspective.

There must be something right about distinguishing the kind of realism which simply affirms that there are numbers and rocks, from the kind of realism which affirms their existence *because* we have taken up a 'metaphysical theoretical perspective'. Consider the fact that it would be *prima facie* inappropriate to challenge your maths teacher by saying that the pop-quiz should be discounted because there *really* are no prime numbers; or telling your partner that you can't hand her the teacup because teacups don't *really* exist. In ordinary life 'the folk' do take it to be true that there are prime numbers and teacups, while remaining silent on whether or not they *really* exist from a 'metaphysical theoretical perspective'. So the pragmatist is right to insist on the distinction. However, it can often be difficult to cash out what the distinction amounts to and why exactly a pragmatist should be entitled to it. In any case, let's mark this distinction with the labels 'simple realism' and 'metaphysical realism', respectively.[25]

Ontological pragmatism connects with the pragmatist's commitment to simple realism in two ways. First, as should be clear from the previous two sections, ontological pragmatists certainly *are simple realists* with respect to numbers, tables, and other entities. For the ontological pragmatist will often answer these existence questions affirmatively. In addition, she can also provide an account of *why* this kind of realism doesn't consist in taking up a 'metaphysical theoretical perspective'. The reason is that, those who take up a 'metaphysical perspective' with respect to existence questions typically do so by assuming the kind of inquiry characteristic of *mainstream ontology*. But, as the dialectic of §3.9 argues, the ontological pragmatist thinks there is no sense to engaging in mainstream ontology. Realism about numbers, ordinary objects, and other entities can be established in a way that is entirely kosher with respect to any full-blooded pragmatism. By building EMUs for the vocabulary items typically employed in ontological debates and then showing that realism can be trivially established using our linguistic competence and ordinary empirical knowledge, the pragmatist can now show that she is entitled to realism about such entities *without* engaging in mainstream ontology. Insofar as we associate the 'metaphysical theoretical perspective' with the perspective of mainstream ontology, we now have a clear way to mark the distinction between simple and metaphysical realism.

Second, given the argument of §3.10, by embracing ontological pragmatism, I have

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[25]Chalmers (2009) does a good job of highlighting the idea that there must be some distinction here. In addition, Thomasson calls her style of realism 'simple' realism (2015: 145 - 158).

shown *why* a pragmatist is entitled to the *rejection* of this 'metaphysical theoretical perspective'. Again, insofar as we can associate such a perspective with the perspective of mainstream ontology, engaging in such disputes must rest upon a mistake. For, as long as the ontological pragmatist has provided the correct characterisation of the use and function of existence claims and singular and general terms, *there can be no further debate* about whether or not there are such things as teacups and prime numbers. There is therefore no longer a perspective from which to claim that there *really are* no numbers and ordinary objects. In this way, by looking closely at what speakers are *doing* when they use terms like 'two' or 'teacup' the pragmatist can thereby vindicate the idea that the folk are correct in bulking at the very idea that these entities don't *really* exist. And all of this can all be established using pragmatist materials. In this way, we now have a view which, while realist, is also importantly *quietist* with respect to mainstream ontology.

3.12   Conclusions

The main conclusions of this chapter are as follows.

1. I argued that a pragmatist is entitled to employ Thomasson's idea that singular and general terms have application conditions to provide characterisations of the meaning and reference of numerical and ordinary object terms. In addition, I argued that such an account of the usage rules for these terms meshes well with the different kinds of functional explanations that pragmatists typically appeal to. These characterisations of singular and general terms adhere to both linguistic priority and anti-representationalism and therefore allow us to see how application conditions can feature in an explicitly pragmatist account of our use of singular and general terms.

2. I also argued that the central aspects of Thomasson's deflationary account of existence can figure in a pragmatist explanation of existential claims which also adheres to both linguistic priority and anti-representationalism.

3. If we put the two previous claims together we end up with an explicitly pragmatist account of our practice of using singular and general terms to pick out objects as well

as our use of existence claims regarding such objects. Therefore, by making use of the details of Thomasson's easy ontology, I constructed a *pragmatist* metaontology.

4. Finally, I argued that this pragmatist metaontology provides a deflationary alternative to mainstream ontology in such a way that allows us to say that there is something wrong with mainstream ontological debates. Such a claim, however, does not conflict with an ordinary or 'simple' realism about the objects that speakers typically take to exist.

The goal of this chapter was to present a metaphysically deflationary metaontology worthy of the pragmatist's name. By employing the resources of Thomasson's easy ontology, I hope I've been able to pinpoint, in a detailed way, what such a position can look like.

4

Pragmatism's Plausibility

4.1   Why ontological pragmatism?

In the previous chapter, I explained *how* a pragmatist can think about discourse in which we quantify over and refer to entities of various kinds. I then argued that this view leads to a deflationary alternative to mainstream ontology. It remains to be shown, however, whether or not such a view is at all *plausible*. I see no better way to argue that it is than to provide some motivations for accepting it and to show that *prima facie* challenges to the view can be overcome. The goal of this chapter is to argue that ontological pragmatism is plausible, in this sense.

The structure of this chapter is very simple. In the first section, I'll highlight three motivations for prefering ontological pragmatism over mainstream ontology. Then, in the second section, I present a number of *prima facie* challenges to ontological pragmatism which, if they can be sustained, might nudge us in the direction of mainstream ontology. I'll respond to each of these challenges and, in so doing, further clarify the view I'm defending. By accomplishing these two tasks, I hope to be able to persuade you that ontological pragmatism is a view worth endorsing.[1]

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[1]Note, that I only want to argue that the view is *worth* endorsing. There are no knock-down arguments in metaontology. All I claim here is that ontological pragmatism is plausible enough that it can be seen as a desirable option for pragmatists to employ in future metaontological debates, and may win over others who hand't before thought of endorsing a pragmatist view of this kind.

Some notes before moving on, however. First, because ontological pragmatism is just an explicitly pragmatist version of Thomasson's easy ontology, arguments against easy ontology are *ipso facto* arguments against ontological pragmatism. Thomasson has already done an excellent job of responding to many of these arguments. For example, she has (convincingly, to my mind) responded to Quine's and Williamson's arguments against conceptual truths (2007: 28-48; 2015: 231-248), the 'bad company' objection (2015: 253-267), and Hofweber's argument that easy ontology fails to answer ontological questions (2015: 271-287).[2] There's not much more I can add here, so I won't address these objections myself. Instead, the objections I consider are those I take to be immediate challenges to ontological pragmatism, as I've formulated it.

Second, I'll assume that my audience consists of those sitting on the fence between ontological pragmatism and the view's main opposition: mainstream ontology. This is because there are those whoose distaste for either pragmatism or deflationary approaches to ontology more generally runs so deep that they wouldn't be willing to consider the view I'm defending. By focusing the discussion on trying to persuade these 'fence-sitters', I'll side-step these possible naysayers. Nevertheless, by persuading more neutral parties that ontological pragmatism should be favoured over the dominant approach to ontology in recent metaphysics, I'll be able to stake my claim that ontological pragmatism is a *compelling* option, and one that pragmatists can profitably take advantage of in future metaontological debates.[3]

4.2 Motivating ontological pragmatism

In this section, I'll describe some motivations in favour of ontological pragmatism over mainstream ontology. I'll offer three. The first consists in the idea, familiar from discussions of pragmatism more generally, that ontological pragmatism provides a desirable way to handle challenges arising from the so called 'placement problems' of contemporary

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[2]The classic objections here can be found in Quine (1950), Williamson (2007: 73-134), Boolos (1990), Heck (1992), and Hofweber (2005; 2007).

[3]In addition, I won't argue that ontological pragmatism is the best of all *deflationary* approaches to ontology, like those of Hirsch (2011) and Rayo (2013). While this would be an interesting project, but I think it would often result in friendly fire. Far better to show that ontological pragmatism is preferable to the status quo understanding of ontology in order to put pragmatism on the map. I'll thus leave the assessment of ontological pragmatism relative to other deflationary views for further research.

metaphysics. The second motivation consists in the idea that ontological pragmatism relies on a better, more straightforward, and tractable *epistemology* than does mainstream ontology. Finally, the third motivation is the idea that ontological pragmatism is more charitable to our pre-theoretical intuitions about answering existence questions, providing us with the answers we want, without incurring various explanatory costs. Throughout the rest of this section, I'll present the details of these motivations in the order in which I've just listed them.

4.2.1 The argument from placement problems

The first motivation concerns the idea that pragmatists are able to present a desirable way to handle challenges resulting from the 'placement problems' of contemporary metaphysics. This point has been forcefully made by Huw Price in a variety of papers (1997; 2004; 2009; 2013) and has been a motivating factor for a variety of other pragmatists as well.[4] I'll start by highlighting these problem and describing the challenges they present to the mainstream ontologist. I'll then argue that the pragmatist approach defended here presents a desirable way of responding to these issues in a way that mainstream ontology does not.

1. *Placement Problems.* To start, what are placement problems? Placement problems are best seen against the backdrop of philosophical *naturalism*. Think of naturalism, at a minimum, as the following view: that philosophy and science are broadly continuous and that, where the two conflict, science should take the lead. Naturalism, in this sense, is widespread throughout contemporary philosophy.[5]

   Now, science tells us that there are, at least, various kinds of physical things — things like electrons, mountains, planets, and human beings — all subsumed under the laws of nature. We might call this 'natural reality'. If you're the kind of mainstream ontologist

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[4]For example, much of the work of Sellars (1962b) and Blackburn (1993) is designed to respond to precisely these kinds of issues.

[5]This is, of course, a *minimal* form of naturalism, since it is less theoretically committed than stronger versions of naturalism. Stronger versions of naturalism would be physicalism — the thesis that everything that exists is physical — or other views which claim that all that exists concerns what can be studied by the natural sciences. Nevertheless, this minimal form of naturalism is all we need to get the placement problems going. And employing this form of naturalism is dialectically more appropriate given that more fence-sitters would be willing to accept the minimal, rather than the stronger, forms of naturalism.

who happens to be a naturalist, you'll likely accept the existence of those entities described by the natural sciences — the entities constitutive of natural reality.

But from here, the problems get going. For we'll likely start to have the following worry about all sorts of *other* things:

> If all reality is ultimately natural reality, how are we to 'place' moral facts, mathematical facts, meaning facts, and so on? How are we to locate topics of these kinds within a naturalistic framework, thus conceived? (Price, 2004: 187)

We can make this more vivid by pitching the problem *linguistically*. It is uncontroversial that, in our ordinary lives, we make all sorts of claims concerning things that don't seem to have anything to do with natural reality. For example, we say 'There are infinitely many primes' and 'Killing babies for fun is wrong' and we assume that these claims are true. But, assuming such statements are best thought of as *representing* reality, it becomes perplexing as to what terms like 'prime number' could refer to or what state of affairs could make 'Killing babies for fun is wrong' true. We therefore have a kind of *cardinality* issue: there seem to be more true statements than there are objects or states of affairs within the natural world. Placement problems, then, concern how to solve this mismatch between our statements on the one hand and naturalistically respectable entities in the world on the other.

How would a mainstream ontologist solve these issues? One route would be to show that our moral, mathematical, and other claims are true by positing the existence of things like numbers and moral properties. The mainstream ontologist would thus recognise the existence of numbers and moral properties in order to explain the truth of our moral and mathematical statements. In other words, in order to explain what's going on with our moral and mathematical claims, the mainstream ontologist might endorse a total theory of the world which quantifies over more than science describes.

But this leads immediately to two problems. First, it leads to *metaphysical* worries about the *natures* of these entities. For simplicity, let's focus on numbers. Since the numbers have now been posited to exist alongside the rest of the natural world, we can ask: Where are the numbers located? What kind of thing is a number? Unfortunately, the most intuitively appealing answers here tend to be *bizarre*. For example, on the face of it, the

numbers aren't located *anywhere* — for if they exist at all, they don't exist in space-time. In addition, numbers are supposed to be, so called, 'abstract objects'. But what exactly is it to be an abstract object? The same issues crop up for the existence of moral properties, meaning properties, and other entities: where are *they* located and what *are* these things anyway? The more we ask these metaphysical questions, the weirder our picture of the world starts to look — at least form a naturalistic point of view — for these things would appear to be unlike anything described by science. It begins to look like we're running the risk of *having to give up on naturalism*. For it isn't clear how we can give an account of these entities that is broadly continuous with a scientific worldview.

In addition, the mainstream ontologist will also incur *epistemic* worries. For example, supposing that numbers are abstract objects, how can *I*, a natural creature existing in space-time, possibly come to know anything about them? Since numbers don't exist in space-time, I can't come into contact with them by any *causal* means. In addition, it's perplexing how I could even be put into any kind of *reliable* correspondence with such entities.[6] Once again, we'll have parallel epistemic problems in the other cases: how could we know anything about the moral or modal aspects of reality, given that, being seemingly outside the natural order, they are out of causal reach?

In order to avoid these these worries, the mainstream ontologist might instead say that *there are no entities* outside what is described by natural science. However, now claims like '2 + 2 = 4' and 'Killing babies is wrong' — claims we all *thought* were true — start to look like they are systematically *false*. For there are no longer any numbers or moral properties allowing us to explain why these claims are true. And this, it must be admitted, *stings* a bit. How could such a successful branch of inquiry like mathematics be systematically false? The same is true of our moral and other claims: is it really *not true* that killing is wrong or that it was possible for Hilary Clinton to win the election?[7]

Thus, however the mainstream ontologist attempts to solve these cardinality issues,

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[6]These classic arguments are due to Benacerraf (1973) and Field (1989).

[7]For simplicity sake I am omitting *reductionist* strategies like that of Jackson (1998). However, see Price (2009) for some reasons for thinking that Jackson's program is misguided by naturalistic lights. All I want to do here is motivate ontological pragmatism by showing how it presents a desirable way to handle these placement issues. It may turn out that reductionist strategies are also good bets, but this would merely amount to the claim that pragmatism and reductionism can both be motivated by placement issues. It wouldn't discount this motivation for pragmatism, in other words. Unfortunately, adjudicating between reductionism and pragmatism is beyond the scope of this chapter.

she'll have to face some awkward choices. If the mainstream ontologist posits the existence of moral properties, numbers, and other entities, then she is faced with metaphysical and epistemological worries which risk rejecting a broadly naturalistic worldview. But, if the mainstream ontologist instead denies the existence of these entities, then she ends up having to deny what what we've always taken to be true.

2. *The satisfying dissolution.* Of course, there's been much work done on responding to these worries. Nevertheless, it would be nice if we could sidestep them altogether. An advantage of pragmatist approaches is that they allow us to do so.

Here's how it works. First, notice that placement problems seem to gain their traction by relying on the assumption that — in order to justify our use of mathematical, moral and other vocabularies as making true claims — we have to posit the existence of certain entities in order to explain what our terms refer to and why our statements are true. But, as Price recognises, this 'rests on substantial theoretical assumptions about what we humans do with language — roughly, the assumption that substantial 'word-world' semantic relations are a part of the best scientific account of our use of the relevant terms' (2013: 10). And, as highlighted in the previous chapter, this assumption is one that the pragmatist *rejects* — for this is just the assumption of *representationalism.* Thus, by rejecting representationalism, pragmatists undermine the very assumption which gets many of these worries about placement problems going.[8]

This leads pragmatists to go in for an altogether different strategy for explaining these 'hard to place' topics: *avoid* the placement problems and their corresponding worries, but nevertheless be able to illuminate these topics by inquiring into the different uses and functions of moral, mathematical, and other kinds of talk. Price summarises the idea like this:

> Without a representationalist conception of the talk, however, the puzzle
> takes a very different form. It remains in the linguistic realm, a puzzle about
> a plurality of ways of talking, of forms of human linguistic behaviour. The

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[8]Perhaps this relies too much on thinking of placement problems in terms of matching bits of language with bits of the world. Can't we get the problems going just by wondering how numbers and moral properties 'fit' into the natural world? First, see Price (2013: 17-20) for reasons against this idea. Second, as I'll argue below, going in for pragmatist explanations, like those provided by the ontological pragmatist, will still offer you a way to avoid those worries.

challenge is now simply to explain in naturalistic terms how creatures like us come to talk in these various ways. This is a matter of explaining what role the different language games play in our lives — what differences there are between the functions of talk of value and the functions of talk of electrons, for example. (2004: 88)

The idea is therefore to illuminate topics like morality and mathematics by explaining the different *uses* between moral and mathematical vocabularies and the different practical roles these vocabularies play in our lives. And these kinds of explanations won't involve the pragmatist in any of the worries arising from trying to solve the placement problems head on.

To see how this, consider how my ontological pragmatist explains how we come to say things like 'There are numbers'. The explanation is pitched entirely at the level of *human linguistic behaviour*, in the sense of tracking the use and function of mathematical terms within our own linguistic practice. We start with reference to our practice of counting various objects in the physical world and saying things like 'Those are two kangaroos', 'three eggs', etc. We then note that numerical terms gain their significance by being bound up in inferences like that from 'There are two kangaroos' to 'The number of kangaroos is two'. And because the former sentence is an instance in which numerical terms have been correctly applied, we conclude that speakers are thereby entitled to claim that there are numbers, in virtue of the patterns of use which render 'exists' meaningful. In addition, the ontological pragmatist will then explain why it is that we make those inferences — go in for that kind of language game — by accounting for its practical utility: in this case, by its affording us the ability to express certain counting facts it would be otherwise difficult to express.

Once these kinds of explanations are taken on board, the worries about placement problems no longer arise. For example, the ontological pragmatist is able to sidestep the *metaphysical* worries because her illumination of topics like mathematics concerns the *use of mathematical words*, not the natures of mathematical objects. Rather than explaining mathematics by telling us what the numbers *are*, she explains mathematics by tellings us what we *do* with mathematical terms. In addition, the ontological pragmatist no longer risks the *epistemic* worries. For her explanation of how we come to know that there are numbers, consists in the fact that we know *how* to make certain inferences and that we

have the capacity to use words in different ways. And note, despite avoiding the epistemic and metaphysical worries, the pragmatist is nevertheless able to justify why it is *correct* to claim that numbers exist. The pragmatist therefore avoids the worries associated with denying the existence of the difficult to place objects, but without any of the metaphysical drawbacks.

And notice that the pragmatist approach is entirely consistent with the kind of philosophical naturalism described above. As Price claims, 'there is a clear sense in which [pragmatism] is naturalistic: it adopts the scientific perspective of a linguistic anthropologist, studying human language as a phenomenon in the natural world' (2011: 13). Thus theorising about the use and function of different vocabularies may be thought of as an ultimately *empirical* exercise. For example, understanding how terms are typically used and what kinds of inferences speakers in fact make may be justified on empirical grounds by modelling aspects of human linguistic behaviour. In addition, theorising about the overall utility or survival value of the different functions of our words and concepts is continuous with subjects like evolutionary biology, psychology, and linguistics. Given the fact that (at least the most basic parts of) our language have *evolved*, the kinds of explanations we get by going in for functional pluralism would seem to be more tractable, from the point of view of science, than many representationalist explanations. For presumably offering an evolutionary explanation of our being in contact with the moral or mathematical aspects of reality would be far more difficult to establish than seeing these vocabularies as arising out of different practical needs.

One might object that our use of language is necessarily rule-governed and so requires an understanding of the *norms* constraining our use of words, and these are outside the scope of scientific inquiry. However, as Williams claims:

> Pragmatism is a naturalistic philosophy in several ways. Not least, pragmatists are anti-Platonists. They want to treat norms as human phenomena that we are responsible *to* but also responsible *for*. Granted, pragmatic naturalism is not reductive, say, in the manner of physicalism: this is one way in which pragmatism is anti-metaphysical. But pragmatism has no time for the *super*natural, another way in which pragmatism is anti-metaphysical. (2013: 130)

Thus there is nothing mysterious, from a scientific point of view, concerning pragmatist

explanations. It is no more mysterious than coming to an understanding of how human beings adopt a practice of there being rules in place which establish that a bishop is to be used diagonally or a rook horizontally and vertically. In any case, the project would seem to be less mysterious and more tractable, from the point of view of science, than the attempt to solve the placement issues head on.

To summarise, if you embrace ontological pragmatism, you'll find a broadly naturalistic way to illuminate 'hard to place' topics without any of the corresponding worries. If, however, you embrace mainstream ontology, you'll likely have to deal with the worries associated with the 'hard to place' topics, and may even have to give up on naturalism. And this makes pragmatism look like a more fruitful and desirable explanatory project to go in for than mainstream ontology.

4.2.2   The argument from a better epistemology

Consider another motivation for ontological pragmatism. If ontological pragmatism is true, then answering ontological questions is epistemically *very easy*. For we need only rely on premises that nearly everyone would accept while making use of our linguistic competence and/or direct empirical inquiry. Being able to answer ontological questions in this way is a desirable outcome. Especially when we compare it with the epistemologically shaky ground we are on when we do mainstream ontology. This is the main idea behind the epistemic argument for ontological pragmatism.

The point is even acknowledged by Ted Sider — someone who wants to vindicate mainstream ontology. According to Sider, many are attracted to deflationary views like ontological pragmatism for the following reason:

> [T]hey think it will give them the epistemic high ground. They see ontologists perennially searching for answers to the same old questions, sometimes with new methods, sometimes with old, but never with much success. Given [mainstream ontology], ontological questions are 'epistemically metaphysical: they resist direct empirical methods but are nevertheless not answerable by conceptual analysis. Epistemically metaphysical questions can seem unanswerable. (2011: 187)

So the epistemology of mainstream ontology can make existence questions look unan-

swerable. However, on deflationary views, according to Sider, 'ontological questions are no longer epistemically problematic in this way: now they can be answered by conceptual analysis' (2011: 187).

Of course, Sider has his own reasons for thinking that we should still engage in epistemically metaphysical inquiry. But what I want to do here is provide some general reasons for thinking that the epistemology of ontological pragmatism makes the view more desirable than the epistemology of mainstream ontology, at least to a neutral observer.

In chapter 2, I described 'epistemically metaphysical' inquiry as follows. The idea is that answering ontological questions requires weighing up the ontological commitments of different theories of the world in light of the theoretical virtues. Such virtues are those like simplicity, explanatory power, unification with other domains of inquiry, elegance, and so on. In my view, those inquiring from a neutral standpoint have good reasons to be sceptical about the viability of this epistemic strategy as it pertains to arriving at answers to ontological questions. Here I'll offer three different worries with respect to 'epistemically metaphysical' inquiry, in this sense. And keep in mind that ontological pragmatism doesn't have to deal with any of these worries, since it doesn't rely on epistemically metaphysical inquiry.[9]

Worry 1: The first worry is simply the poor track record that such inquiry has had in reaching any kind consensus on what there is. For example, such inquiry is inconclusive with respect to the existence of numbers. Some claim that numbers exist (Putnam, 1970), others say they don't (Field, 1980), and some even claim that there's no way of knowing (Balaguer, 1998). The existence of possible worlds has so far been inconclusive. Some say there are (Lewis, 1986), but others balk at the very idea (Sider, 2011). Arguably, the literature on composite material objects is even further in the doldrums. Epistemically metaphysical inquiry has led some to say that anytime you have two objects, there exists the 'sum' of these objects in addition (Lewis, 1986), others to say that there are no sums of objects at all (Dorr, 2005), still others to claim that there is only one great big object — the 'blobject' — and nothing else (Horgan and Potrc, 2008), and, finally, it has gotten others in a position to wonder whether there might be nothing at all (Hawthorne and Cortens,

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[9]My arguments summarise recent work against the epistemology of metaphysics which Thomasson (2015: 167) suggests the easy ontologist might take advantage of in arguing for their view. This is my attempt to use these sceptical arguments in an effort to argue for this kind of view.

1995). Such a lack of convergence and growing proliferation of very different, mutually exclusive, and contradictory answers should at least be a cause for concern.

Worry 2: In addition, there is a second reason to worry about epistemically metaphysical inquiry: that it is not clear that there will ever be a 'winner' in these debates if we rely so heavily on the theoretical virtues. A version of this worry has been put forward by Karen Bennett (2009). I'll cite just one of her examples in order to make this worry apparent.

Suppose there is a dispute between a realist who accepts the existence of composite objects and an anti-realist who denies that such objects exist. Let's stipulate that both disputants are mainstream ontologists relying on epistemically metaphysical inquiry. Therefore, in order to figure out whether or not composite objects exist, the realist and the anti-realist will argue over whether or not we can paraphrase away reference to and quantification over composite objects without loosing out on theoretical virtues like simplicity, explanatory power, elegance, and so on.

Now, consider the fact that many of our best explanations in science and other domains consist in explaining how very large composite objects are made up of smaller composite objects, which are made up of even smaller composite objects themselves. For example, biology is only able to explain *multicellularity* by making sense of organisms that are made up of cells. Cells are themselves made up of organelles, and organelles are made up of molecules, and molecules are made up of atoms, and so on. All of these things are composite objects and any explanation of multicellularity must preserve the structure of the scientific explanations we get by thinking of these objects as being composed of other objects.

In order to eliminate talk of composite objects from our explanations of multicellularity, our anti-realist might try the following paraphrase:

(1) There are simples arranged multicellular-wise.

But (1) won't do, because our explanation of multicellularity relies on our being able to indicate facts about how smaller composite objects, like molecules, are related to the larger ones, like cells. And (1) doesn't communicate any structurally analogous information of that kind. After all, (1) only tells us that there are simples arranged multicellular-wise. But what is it for some entities to be arranged multicellular-wise if not for there to be various *composite objects* built out of other composite objects?

Instead, in order to really preserve the structure of our scientific explanations, the anti-realist will have to replace (1) with something like

(2) ((((((There are simples arranged atom-wise) molecule-wise) organelle-wise) cell-wise) organ-wise) ...)

which involves a highly complex primitive predicate. Nevertheless, this primitive predicate will be required to preserve the structure of our highly complex scientific explanations. In this way, by employing (2), the anti-realist can fend herself off from the charge that she necessarily looses out with respect to the explanatory power of her favourite theory.

Perhaps the anti-realist can use this trick to account for all of our explanations involving composite objects and their interrelations. However, not only is this trick very hard to pull off, it's also not clear that it fairs better in virtue of simplicity. For we can distinguish between *ideological* and *ontological* simplicity. A theory is more ontologically simple if it countenances the existence of less entities; a theory is more ideologically simple if it requires the use of less primitive predicates or concepts in the formulation of the theory.

Once these conceptions of simplicity are distinguished, we immediately run into the following worry:

> Thus far, we have seen that the [anti-realist's] desire to play up his expressive power leads him to postulate a highly structured property or predicate for each object that the [realist] recognises. This should lead us to wonder just how much rests on the decision between the [realist and the anti-realist], and just how much evidence we have for one over the other. At this point, it starts to feel as though we are just riding a see-saw — fewer objects, more properties; more objects, fewer properties. Or perhaps — smaller ontology, larger ideology; larger ontology, smaller ideology. Either way, it starts to feel as though we are just pushing a bump around under the carpet. (Bennett, 2009: 65)

Thus, while the realist requires more objects, she doesn't need the extra ideology of (2); and while the anti-realist requires less objects, she needs the extra ideology of (2). Which theory is really simpler and which theory is really more explanatory? It begins to looks as though both sides can fidget around enough with the regimentation of their theories

in such a way that there is no longer any decisive epistemically metaphysical evidence in favour of one theory over the other. Therefore it begins to look like neither theory will really be more virtuous.

What these kinds of cases show, is that epistemically metaphysical inquiry comes with a real risk that debates about what exists may end up being underdetermined, in the sense that there may be no way to decide between competing positions. Epistemically metaphysical inquiry just might not be up to the task of adequately adjudicating between rival ontological theories. Again, this should cause us significant concern.

Worry 3: Finally, the last worry concerns whether or not the theoretical virtues are a good guide to the *truth* of an ontological theory at all. To start, consider the fact that the mainstream ontologist will need claims like the following to be the case.

> (T) If a theory T_1 is simpler than a theory T_2, than that constitutes a good *theoretical* reason to believe that T_1 is (at least) closer to the truth than T_2.

In this sense, virtues like simplicity are supposed to be a good guide to what the world is really like — they are supposed to be truth-conducive. But, as Uriah Kriegel (2013) and Philip Bricker (forthcoming) argue, in the case of ontology, the presumption that virtues like simplicity, unity, and elegance are truth-conducive is difficult to justify.

Let's look at simplicity — the principle described by (T). What grounds do we have for believing that (T) is true? Let's construe 'simpler' in terms of an ontological theory countenancing the existence of less *kinds of entities*. Given this kind of simplicity, it would appear that the justification of (T) would amount to the claim that the world is *more likely to contain very few kinds of entities*. In other words, that the world is more likely to only contain one kind of thing as opposed to containing two or three different kinds of things.

But why believe *that*? There seems to be no justification for believing that the world is simple in this sense. On the one hand, we don't have *a posteriori* evidence telling us that the world is simple. It is unclear what kinds of inductive or abductive inferences could even be used to justify it. In addition, it seems we have no *a priori* grounds for believing that the world is more likely to contain very few kinds of things. It is just as conceivable that the world contains many different kinds of things than it is that the world contains very few. Likewise, it is perfectly conceivable that the world contains numbers *even if* our best total theory of the world didn't need to quantify over or refer to them. The same

goes for other kinds of entities and kinds of entities we haven't come across. Therefore, principles like (T) look unjustified, providing no reason to think that virtues like simplicity are a good guide to telling us what the world is like.

The same would seem to be the case with respect to virtues like unity and elegance. Why think that these virtues are truth-conducive? What is supposed to justify the idea that the world is unified? Even if our total theory world is able to unify other branches of inquiry together, for all we know the world may yet be so *disorganised* that the ability of our own theory to unify others wouldn't adequately track what the world is like.[10] The same goes for elegance: what exactly is supposed to justify the presumption that the world is elegant?

In fact, on the face of it, it looks like considerations of simplicity, unity, and elegance are reasons for accepting a theory insofar as such theories are *easier for us to use*. For example, we naturally favour using simpler theories or more unified ones because they are generally more productive, easy to comprehend, and easier to apply. So it is natural for *us* to want to make use of such theories. But this doesn't constitute a *theoretical reason* for thinking that the world really is simple, unified, and elegant. As Bricker claims, this 'seems scarcely more justified then, say, believing Ptolemaic astronomy true because it conforms to our desire to be located at the center of the universe' (forthcoming: 2). And while this isn't a problem for the pragmatist — who is more than happy to accept that there are more or less convenient ways for us to talk and formulate theories — it is a significant problem for the mainstream ontologist. For she needs the theoretical virtues to be a guide to what the world is like, rather a guide to which theories are more convenient for us to use.

Perhaps the mainstream ontologist can respond in the following way. While there may be some grounds for scepticism regarding our ability to justify the claim that the theoretical virtues are truth-conducive, we shouldn't be *overly* worried about these issues. After all, reliance on the theoretical virtues *does* occur in the natural sciences. And it can hardly be denied that the methodology of the natural sciences is generally truth-conducive. Thus, since epistemically metaphysical inquiry is similar in kind to natural science, we can be confident that the deployment of the theoretical virtues will eventually allow us to arrive at the right answers.

In response, however, while it is true that scientists sometimes rely on the theoretical

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[10]See Dupre (1993) and Cartwright (1999) for real live views of this kind.

virtues, there are important asymmetries between the way the mainstream ontologist appeals to these virtues and the way natural scientists appeal to them. In particular, it makes a difference that scientists generally employ these virtues to adjudicate between theories which are *empirically constrained* and relatively *local in scope*. The theories of the mainstream ontologists on the other hand are scarcely ever constrained by much empirical data and are attempts to provide *total* theories of the world.

To see how this makes a difference, let's go back to simplicity. In science, simplicity may be employed when two theories, T_1 and T_2 are empirically equivalent, but where T_1, say, assumes the existence of less entities than T_2. What is the justification for this? As Uriah Kriegel claims, one justification for choosing the simpler theory is that it allows the scientist to say less; and 'saying less exposes one to less error, keeping one's standing liabilities to a minimum' (2013: 20). Rendering your theory less exposed to error is just a way of making it more likely to be true. Thus by choosing T_1, the scientist can make whatever empirical predictions and explanations she needs without opening herself up to errors she might incur if she chose T_2. This is certainly a good justification for going with the simpler theory.

But notice that the mainstream ontologist cannot justify the use of simplicity in this way. For example, suppose that T_1 is a Platonist theory of the world which assumes the existence of numbers. A nominalist might then insist that her theory of the world, T_2, is better because it doesn't assume the existence of numbers and is therefore simpler. Notice, however, that by making such an argument, the nominalist is not *avoiding* unneeded commitments, and so making herself less prone to error in the way that our scientist was. On the contrary, by wielding simplicity against the Platonist, the nominalist is making a claim about the *non-existence* of a given range of entities as well. The reason for this is that metaphysical theories are supposed to be *total* theories of the world. Being a nominalist requires saying that *there are no abstract objects*. But being committed to the non-existence of a range of entities is just as error prone as being committed to the existence of these entities. By contrast, the scientist's theories only purport to make — relative to the presumptions of the mainstream ontologist —*local* empirical explanations and predictions, and so need not make any explicit claims about the *non-existence* of those entities assumed by less simple theories.

Likewise, there are asymmetries with respect to virtues like unity. For example, while it

may not be true that unity is truth-conducive in the sense that the world is more likely to be unified, it is *confirmation*-conducive in the sense that, while it may not confer truth on any *particular* claim, it does allow, by bringing disparate theories together, the sort of evidence that confirms one set of beliefs to also confirm the sets of beliefs with which it is unified. And this enhances the evidential support we have for the theory in light of empirical confirmation. However, because mainstream ontological theories aren't constrained by their ability to be confirmed empirically in this way, they cannot justify their use of virtues like unity in the same way. Thus it looks like scientists have the ability to justify their reliance on the theoretical virtues in a way that the mainstream ontologist does not.[11]

Thus, it is difficult to see how the mainstream ontologist can say that relying on the theoretical virtues is truth-conducive for an ontological theory. By contrast, since the ontological pragmatist doesn't rely on these theoretical virtues in deciding whether or not objects of a certain kind exist, she doesn't have to make presumptions about whether or not the world is in fact simple, unified, or elegant. And since she doesn't need to make these presumptions, she won't land herself in the awkward position of having to justify them. Instead, the pragmatist will simply theorise about when it is correct to apply a given singular or general term and conclude that the relevant objects either exist or don't, independent of whether or not our simplest, most unified, and elegant theories require the existence of such objects.

Now, while I don't take these considerations to be conclusive, I do think that they should make any neutral observer *worry* about whether or not ontological questions are best answered through epistemically metaphysical criteria. For employing such criteria can lead to a bad track record of reasonable convergence, to an inability to arrive at determinate answers, and to the idea that this kind of inquiry may not even be truth-conductive at all.

The ontological pragmatist, on the other hand, doesn't have to worry about any of these things. For she thinks that answers to existence questions are straightforwardly answerable by premises that nearly everyone will accept along with direct empirical evidence and a shared mastery of how we use words. We make use of these kinds of epistemic criteria all the time and so there's no need to worry about the pragmatist's epistemology in the same way. In this sense, the pragmatist may lay claim to the epistemic high ground over

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[11]See Dietrich and Moretti (2005) for a formalised model of how this process works in science.

the mainstream ontologist. And this is another reason for preferring the view.

4.2.3   The argument from charity

Let's consider a final argument in favour of ontological pragmatism over mainstream ontology. This argument concerns the idea that ontological pragmatism is better able to preserve our ordinary practice of making and answering existence questions in a way that doesn't have to deal with the explanatory costs of rejecting our ordinary practice.

To start, recall that these arguments are directed at 'metaontological fence-sitters': philosophers without any skin in the game trying to choose between ontological pragmatism and mainstream ontology. Imagine you're a fence-sitter and you want to know how it is possible to arrive at answers to existence questions. You don't have any particular desire to preserve mainstream ontological debates, nor a desire to think of such debates as deep and difficult, rather than easy or shallow.

With this in mind, allow me to offer a plausible constraint on your choice of metaontological theory:

> CHARITY: You should avoid the charge (if you can) that the metaontological view you endorse interprets us as being systematically misguided in our ordinary practice of answering existence questions.

I hope that sounds intuitively appealing. But allow me to highlight some reasons for accepting CHARITY.

First, it would appear that we already have very *reliable* practices of making certain existence claims. Think of mathematics, where we make existence claims about prime numbers and other mathematical entities all the time. Likewise, in our everyday lives we seem to already be able to know when it is correct to say that there are a few eggs in the refrigerator. Surely it would be better to preserve the intuitive reliability of these practices, rather than suggest that they ought to be overturned, if we can.

Second, suppose your choice of metaontlogical theory *departs* from ordinary practice. Then it's likely that your theory will predict that (at least) some of the existential commitments assumed by ordinary speakers are in *error*. This comes at a significant *cost*. For not only do you have to deny what many take to be true, you'll also incur the burden

of *having to explain* how it could be that ordinary speakers have gotten things so wrong. Surely it would be better to not incur this explanatory cost if we can get away with it.

Third, since we are talking about our choice of *metaontological* theory, choosing a metaontology which *departs* from ordinary practice is tantamount to claiming that much of our actual practice of making existence assertions is in *error*. Thus, it isn't just that we'd end up accusing ordinary speakers of being wrong prime numbers and teacups, it is also that we'll be accusing them of being misguided about their practice of arriving at answers to existence questions more generally. This incurs yet another explanatory cost, but at a higher level: that you will be saddled with having to explain how speakers could be so wrong about their ordinary methods of handling existence claims in general. Again, it would be better to avoid this cost than to take it on.

Thus endorsing a metaontology which tends to preserve our ordinary practice of answering existence questions will both be able to preserve the intuitive reliability of our practices and avoid being saddled with some difficult explanatory costs. For these reasons, I think we should take CHARITY on board. What I'll do now is argue that ontological pragmatism meshes far better with our ordinary practices than mainstream ontology, and so better satisfies CHARITY.

To start, consider the fact that ordinary speakers are willing to freely expand their domain of discourse whenever it suits them for various communicative and other purposes. In particular, they do so in such a way that they are uninterested in figuring out whether or not they should quantify over such entities in a best total theory of the world. For example, ordinary speakers will routinely move from an 'event-free' claim like 'They started fighting' to a claim which refers to events like 'A fight broke out', allowing them to conclude that there is a fight. Ordinary speakers make these transitions without feeling any need to worry about whether or not they are saying something false because events might be dispensed with in a best theory of the world. Likewise, speakers don't hesitate to make reference to numbers when it helps them to better indicate other facts. For example, speakers will say 'The number of cats is greater than the number of dogs', to indicate how many dogs and cats there are in the kennel without batting an eye towards whether or not numbers are indispensable to any total theory. The same goes for social entities like marriages and universities. Ordinary speakers will say 'There is no better university than Cambridge' without worrying about whether or not Cambridge *really* exists, in the

mainstream ontologist's sense. Feeling the need to wage mainstream ontological arguments in order to check whether or not we can make a given existence claim is just not a part of our ordinary practice.

To further bolster this point, consider our *pre-theoretical intuitions* about what it takes to determine whether a given object exists. Suppose we all collectively agree on a best total theory of the world. We find that, in regimenting the theory, entities like couples, mountains, trees, and tables can be dispensed with without loss of explanatory power. Prior to going in for mainstream ontology, would this shake our belief that these dispensable entities exist? It doesn't seem so. Before we go in for mainstream ontology, most of us are inclined to agree with Kit Fine:

> Our reason to believe in couples or in chairs and tables, for example, has nothing to do with their role in explanation. John and Mary are 'together' and that is reason enough to suppose that they are a couple; the object over there has a certain form and function and that is reason enough to suppose that it is chair ... Just as the fact that two people are married is reason enough to think that a couple is married, so the fact that there are no goblins is reason enough to think that the number of goblins is 0 (and hence that there is a number). Thus I doubt that dispensability arguments can properly be used to undermine our belief in numbers or the like. (2009: 160 - 161)

In this way, at least *pre-theoretically*, our ordinary standards for determining whether or not an object exists have nothing much to do with mainstream ontology. In fact, the standards by which mainstream ontologists determine what exists can seem unduly procrustean by the lights of ordinary practice.

By contrast, ontological pragmatism can explain why all these facts about our linguistic practices are in good standing. Of course, if they started fighting, then a fight broke out. For our use of the term 'fight' is such that the inference from 'They started fighting' to 'A fight broke out' is alway good. And this is reason enough to say that there is some event — a fight — that occurred. Likewise, our use of the term 'couple' says that we can apply the term whenever we have grounds for believing that two people are together. And since the term applies, there's no further question as to whether or not there is a couple. In this way, the ontological pragmatist will be able to predict these features of our ordinary practice of

making existence assertions in a way that the mainstream ontologist cannot.[12]

Thus, because ontological pragmatism is more faithful to our ordinary practice of answering existence questions, the view does a better job of warding off the idea that our ordinary practices are systematically misguided than does mainstream ontology. Ontological pragmatism, therefore, better accords with CHARITY and thus better preserves the intuitive reliability of our everyday conclusions about what exists without incurring the explanatory burden of having to explain away how the judgements of ordinary speaker's could be systematically misguided.

Contrast this with the situation the mainstream ontologist is in. First, she won't be able to preserve the intuitive reliability of our ordinary methods of determining that there is a tree in the garden, a couple coming to the party, or prime numbers greater than a million. For the mainstream ontologist will take all these claims to be hostage to fortune, in the sense that they can *really* only be justified on the basis of a mainstream ontological argument.

In addition, suppose that it turns out that the mainstream ontologist has to *deny* that there are numbers, events, trees, and couples because these entities can be dispensed with in a best total theory. Then she'll likely be faced with the following two choices. She will either have to say that (a) when ordinary speakers make claims about numbers, events, and the like, their claims involve widespread systematic *error* or that (b) the best interpretation of these ordinary claims is *fictional*. The problem with (a) is that they now incur the cost of explaining why ordinary speakers have gotten into a situation in which they are involved in systematic error. The problem with (b) is that it doesn't *prima facie* seem as though we've been speaking fictionally about numbers, events and trees.[13] Therefore, in each case, the mainstream ontologist will *incur a significant cost* in explaining why either (a) or (b) is true.

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[12]Perhaps it might be objected that ontological pragmatism makes our ordinary existence claims *too* easy. Consider the question: are there any odd perfect numbers? This question cannot have an easy answer, for mathematicians still don't know the answer to it. Yet this question is just one of the many questions embedded in our actual mathematical practice.

In response, note that the ontological pragmatist (and easy ontologist more generally) is not committed to the claim that *every* answer to an existence question is easy. Instead, the ontological pragmatist need only claim that for most of the questions of *ontology* — general questions like 'Are there numbers? or 'Are there events?' — we'll be able to provide a straightforward answer by making trivial inferences from uncontroversial truths, relying on nothing more than empirical and/or conceptual work.

[13]This argument will be cashed out in the next chapter.

Moreover, because ordinary speakers don't *generally* make existence claims by attempting to figure out what needs to exist in order for our best total theory of the world to be true, she'll run up against these same costs with respect to our practice of making existence claims on the whole. For example, if the only legitimate existence claims are those which are made in light of seeing what the bound variables of our quantifiers must range over within a best theory of the world, then why would the ordinary speakers be so willing to freely expand their domain of discourse by making inferences like that from 'They started fighting' to 'A fight broke out'? Why don't they know that they are very likely saying something false?

These interpretive difficulties shouldn't be overlooked. Any theory which doesn't incur a given theoretical cost is, on the whole, better than a theory which does, *ceteris paribus*. And being able to explain away the practices of ordinary speakers is often risky and subject to counterexamples. However, the ontological pragmatist doesn't incur these costs, for she doesn't have to explain away seemingly obvious features of our linguistic practice. So this gives us *prima facie* grounds for favouring ontological pragmatism over mainstream ontology.

This completes the project of motivating ontological pragmatism. To sum up, if you go in for ontological pragmatism, you'll be provided with the following benefits: (1) you'll be able to provide a broadly naturalistic way of responding to the placement problems without any of the metaphysical or epistemological drawbacks; (2) you'll be able to answer ontological questions with a more tractable, straightforward, and less worrisome epistemology than you would if you went in for mainstream ontology; and finally, (3) your view will be able to accord better with our pre-theoretical intuitions about how to answer existence questions and you won't incur burdensome explanatory costs in having to explain away face-value construals of our existence claims.

For these reasons I think there are some significant motivations compelling us towards ontological pragmatism over mainstream ontology. In effect, you'll get the answers to ontological questions you'd typically expect or want in everyday life, your knowledge of such answers will be had very easily, and you'll even be able to provide a vision of how all the different kinds of topics we talk about fit into a broadly naturalistic worldview. Therefore, unless you are committed to doing mainstream ontology for its own sake, why

wouldn't you go in for ontological pragmatism?

4.3 Defending ontological pragmatism

Perhaps, however, there are significant objections to the view. In this section, I'll consider a series of objections which, if they can be sustained, may give us reasons for accepting mainstream ontology over ontological pragmatism. Here is a list of the objections I'll be concerned with: (1) that ontological pragmatism is implicitly committed to linguistic idealism; (2) that ontological pragmatism doesn't sufficiently distinguish having evidence for the existence of something from it being objectively correct to say that something exists; (3) that mainstream ontological inquiry may defeat the conceptual truths the pragmatist relies on; (4) that pragmatists have no account of when an expression counts as a *term*, as opposed to some non-referring expression, and thereby risk either being unable to affirm the existence of things like numbers and tables or having to affirm the existence of entities which don't exist; and, finally, (5) that ontological pragmatism is limited in scope, for there are some discourses from which there can be 'no-exit' from representationalism. In what follows, I'll take on each of these objections in the order I've listed them. In each case, I'll begin by describing the details of each objection, and then issue my response.

4.3.1 The threat of linguistic idealism

1. *The objection*: Let's start with the objection that ontological pragmatism is a form of linguistic idealism. As I use the term, 'linguistic idealism' refers to any view which is, either explicitly or implicitly, committed to the claim that what exists *depends* on our language or concepts. Surely any view which thinks of the world as dependent upon our language and concepts is implausible. There are many things who's existence doesn't depend on our words or concepts: rocks, trees, prime numbers, and electrons, to name a few. Nevertheless, a number of authors have accused *both* easy ontology and pragmatist approaches of being implicitly committed to a form of linguistic idealism. Since ontological pragmatism is an explicitly pragmatist form of easy ontology, it is therefore likely to be accused of linguistic idealism as well.[14]

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[14]In addition, when I've presented my own work in conferences and other venues I'm almost always asked how ontological pragmatism is not a form of linguistic idealism.

Easy ontological views are accused of linguistic idealism because of their reliance on conceptual or analytic truths. For example, Karen Bennett argues that, because deflationary approaches to, for example, the existence of tables, need to rely on *analytic* principles which entitle them to move from a claim like 'There are simples arranged table-wise' to 'There are tables', such views are implicitly committed to the idea that 'meaning alone is enough to conjure up the existence of tables' (2009: 56). According to Bennett this cannot be the case:

> Saying that [the inference from 'There are simples arranged table-wise' to 'There are tables'] is analytic in the believer's language amounts to saying that we can *define things into existence*. But surely an analytic claim cannot be existence-entailing in this way; surely the existence of a new object cannot follow *by meaning alone*. Who knew ontological arguments were so easy? (2009: 56)

Similarly, Katherine Hawley suggests that relying on analytic or conceptual truths to make claims about existence commits one to the idea 'that we can, simply by agreement, and from a distance, make it the case that the material object I see before me today either will or will not exist tomorrow' (2009: 148). This, she claims, 'would be a remarkable metaphysical party trick, if only we could arrange it. But unless we are *idealists*, we cannot suppose that objects exist only courtesy of our [use of language]' (2001: 148. *my emphasis*). Thus, easy approaches to ontology are often accused of being committed to the idea that what exists depends on the meanings of our words.

Similar accusations have been made against pragmatists. For example, consider the following characterisation of pragmatism offered by Beebee, Effingham, and Goff:

> Pragmatism is a variety of global anti-realism ... (Actually many pragmatists would describe themselves as realists; however we are working with a definition of anti-realism according to which the anti-realist holds that reality is not mind independent, and pragmatists subscribe, implicitly at least, to that thesis). (2011: 172)

In addition, when Sider discusses the realist idea that the point of human inquiry is to '*conform* itself to the world, rather than to *make* the world', he lumps pragmatism in with

views which *reject* this realist idea: 'Certain philosophers will rightly remain unconvinced, for example 'anti-realists' of various stripes — *pragmatists*, Kantians, logical positivists, and so on' (2011: 18, *my emphasis*). Thus, like easy ontologists, pragmatists are often accused of being implicitly committed to the idea that what the world is like depends on our words and concepts, or that we 'make' the world by talking in a certain way.

In my view, what makes some authors claim that both easy ontology and pragmatism are committed to linguistic idealism is the fact that both views are *linguistic* approaches to metaphysical questions — in other words, both views attempt to illuminate issues that are often taken to be about the mind- and language-independent world by theorising about our words and concepts. And since the worry seems to infect both easy ontology and pragmatism more generally, it would therefore seem to be a challenge to ontological pragmatism, specifically.

What claim exactly should the ontological pragmatist want to reject in order to *avoid* the charge of linguistic idealism? We can sharpen up the idea that objects, like trees, *depend* on our linguistic usage by cashing out the dependence claim in terms of the following counterfactual:

(C1) If nobody had used the term 'tree', then there would be no trees.

According to our opponent — someone wielding the charge of linguistic idealism — the ontological pragmatist must think that (C1) is *true*. For she thinks that ontological pragmatism entails the claim that the existence of an object depends upon the use of the linguistic expressions employed to described these objects. Or, to put it another way, that it is our use of a term like 'tree' that somehow — miraculously — makes it the case that trees exist.

What if our opponent is right? This would be bad news for the ontological pragmatist. Surely (C1) can't be true. Trees would exist whether or not human beings had ever used the term 'tree' at all. And notice, because mainstream ontologists endorse *materiality* — that the proper mode of theorising in ontology consists in inquiry about the mind- and language-independent world, rather than our language and concepts — they'll claim that they don't have to worry about linguistic idealism. Their methodology doesn't rely on the idea that we should take a *linguistic* approach to what are traditionally metaphysical questions. They can think about the language-independent world head on. Thus failure to respond to the the charge of linguistic idealism — failure to show that sentences like

(C1) are false — might leads us towards endorsing mainstream ontology over ontological pragmatism, given the implausibility of linguistic idealism.

2. *The response*: Thankfully, ontological pragmatism actually predicts that (C1) is false. To see this, let's employ a Lewis-style (1973) semantics for assessing the truth of counterfactuals like (C1).[15] According to Lewis, there is a standard procedure for assessing the truth of (C1). What we do is look at the closest possible worlds in which nobody uses the term 'tree'. At these close possible worlds everything is exactly the same as it is in our world, but for the fact that the denizens of these worlds don't use the term 'tree'. Perhaps such speakers don't have any practical need to use 'tree' or perhaps there are no speakers in these worlds at all. The crucial question is the following: can the ontological pragmatist look at such worlds and still claim that there are trees in them? If she can't, she's a linguistic idealist. If she can, then (C1) is false by the lights of the pragmatist.

How does the ontological pragmatist decide whether or not there are trees in these close possible worlds? Answer: by figuring out whether or not the actual application conditions of 'tree' are fulfilled in these worlds. Doing so allows the ontological pragmatist to figure out whether or not the consequent of (C1) is false even in worlds in which there are no speakers who use the term 'tree'.

But a crucial caveat needs to be made. In order for *anyone* to figure out whether or not the the consequent of (C1) is true at these close possible worlds she'll have to be *using a language* in which expressions like 'tree' and 'exists' are meaningful. So, in assessing the truth of (C1), the ontological pragmatist will have to employ a language. Presumably, in asking whether or not (C1) is true, we are asking whether or not it is true *given the language we are actually using*, right here in the actual world. Such a language, given ontological pragmatism, will contain expressions like 'tree' and 'exists' characterised according the EMUs for ordinary object terms and 'exists' provided in the previous chapter. So, in assessing whether or not (C1) is true or false, the pragmatist will do so by figuring out whether or not 'tree' correctly applies in these worlds according rules of usage like those specified by (I-O) in the previous chapter.[16]

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[15] I don't want to endorse Lewis' overall view here; instead, I simply take it as a convenient way of showing how the charge of linguistic idealism doesn't go through.

[16] The ontological pragmatist thus *rigidifies* her use of the term 'tree' to its use in the actual world, to put this in a Kripkean way (1980).

With this in mind, look at these close possible worlds. Everything is exactly the same minus the fact that the denizens of these worlds don't themselves use the term 'tree'. But, as outsiders looking in, we know that the term 'tree' applies in these worlds in just the same way that we know that 'tree' applies at our own world. After all, by hypothesis, everything *else* in these close possible worlds is the same. Thus, minus the fact that such worlds contain no uses of the term 'tree', everything looks the same, feels the same, and *is* the same in these worlds. For example, there will be the same environmental conditions allowing us to apply the term 'tree' as a language-entry rule. In addition, since there are particles arranged tree-wise in these worlds, we'll know that 'tree' applies as a matter of conceptual truth. All this means that, looking at these worlds and making use of her knowledge of how to use the term 'tree', the ontological pragmatist will know that 'tree' applies and therefore that trees exist in these other close possible worlds in just the same way that she is able to do so in her own. Therefore, even in worlds where nobody uses the term 'tree', there are trees, and so (C1) is false. Ontological pragmatism does not entail linguistic idealism.

Of course, the denizens of these close possible worlds won't be able to *say* that there are trees, since they don't use the term 'tree'. And if we didn't use the term 'tree', we'd be in the same situation. But this doesn't entail that there are no trees. Instead it merely implies that

> (C2) If nobody were to use the term 'tree', then nobody would be able to say 'There are trees'.

But (C2) is pretty close to a trivial truth. Of course you can't use the sentence 'There are trees' without using the term 'tree'. In addition, (C2) is compatible with rejecting (C1). It is therefore also compatible with rejecting the idea that pragmatism implies linguistic idealism.

The upshot is that, because the ontological pragmatist thinks that (C1) is false, she is perfectly entitled to the obvious truth that the existence of trees and other objects does not depend on our use of language. In this sense, the pragmatist can say — with just about everybody else — that the world is (for the most part) 'out there', independent of us and our linguistic activities.

4.3.2 Evidential- vs. correctness-conditions

1. *Detailing the objection*: Let's move on to another objection, which also concerns a worry regarding the objectivity of our existence claims. It's recently been put forward by Stephen Yablo as a challenge to Thomasson. In addition, it stems from the fact that Thomasson construes application conditions as part of the *rules of use constitutive of a term's meaning*. Thus this objection is especially pressing for a *pragmatist* account of ontology, since the idea that the meaning of a term is constituted by its use is at the heart of ontological pragmatism.

Yablo begins by noting that use-theories of meaning (like the inferential or conceptual role semantics the ontological pragmatist embraces) can make it difficult to distinguish between uses which are governed by meaning rules and uses which are merely warranted in light of empirical evidence:

> If we use 'transitions' (following Sellars) as a general term for habits of inference and language-entry and -exit dispositions, then the principal challenge [conceptual role semantics (CRS)] faces is this: which transitions are governed by meaning rules and which are merely empirical? The problem looks especially serious for long-arm CRS, because judging of a presented scene that it contains a table looks like an empirical exercise rather than one mandated or proscribed by meaning rules. As Thomasson says, 'rules for when it is and is not proper to use a term' are not automatically analytic. Learning the use of 'table' is all caught up with learning what tables look like, where they're typically found, and so on (2014: 495)

Yablo then uses this ambiguity between meaning rules and empirical rules to argue that it is difficult to see whether Thomasson's application conditions tell us when it is *correct* that 'table' actually applies or whether they merely tell is that we have *evidence* that 'table' applies. For, according to Yablo, on use-theoretic accounts of meaning, 'there is nothing to prevent evidential rules from figuring in meanings' (2014: 495). After all, if learning the use of the term 'table' is bound up with being able to make empirical judgements regarding whether or not it *looks* like there is a table, then learning the use of 'table' in this case would only get us as far as having *evidence* that 'table' applies. For whatever empirical information we might rely on for judging that there is a table would typically be thought

of as merely providing us with evidence that there is a table.

According to Yablo, we'll run into the same problem if we look at the application condition where, given that

(3) There are particles arranged table-wise,

we are supposed to be entitled to infer that

(4) There is a table.

For, according to Yablo, since *evidential* rules can figure in specifying the use of terms like 'table', the move from (3) to (4) doesn't necessarily establish that it is *correct* to say that there is a table. As Yablo claims, perhaps, at best, '[suitably arranged particles are] necessarily *evidence* for tables' (2014: 496). But if (3) is merely evidence for the existence of tables, then neither Thomasson nor the ontological pragmatist will be entitled to the idea that, from (3), it is *objectively correct* to assert that there are tables. Instead, they'll only be able to assert something like

(5) I have evidence that there is a table.

Teasing this out a bit further, consider the fact that merely invoking (3) won't give us a situation in which (4) is true, while (5) is false. For any condition under which a speaker is entitled to assert that there is a table will also always be a condition under which she is entitled to assert that she has evidence that there is a table. After all, on this account, invoking the condition under which 'table' actually applies is supposed to give speakers a *justification* for asserting that there is a table. In essence, the problems is that it isn't clear that either Thomasson or the ontological pragmatist really gets us the *objective* content of (4) instead of the merely *evidential* content of (5). While both (4) and (5) are assertible under the same conditions — those conditions in which there are particles arranged table-wise — they have different *truth-conditions*, for there could be tables even if we are not in a position to say that there are any.[17]

Now, Thomasson wants it to be the case that application conditions 'should not be understood as conditions under which it would be warranted or generally accepted to apply the relevant term, or in which we would have some evidence that it applies'; instead

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[17] My appeal to truth-conditions doesn't lapse into representationalism. For it is the usage rules that explain the truth-conditions of a sentence. Truth itself isn't playing an explanatory role.

they are supposed to be 'conditions under which it (really) would be proper to apply the term' (2015: 94). But, as Yablo claims, this is difficult to work out in practice:

> She is right, of course, that merely epistemic reasons to apply K do not suffice
> for the existence of Ks; the application has got to be correct. The problem is
> to see how this separation — between rules of evidence and correctness rules
> — is to be carried out in practice. (2014: 495)

Thus the challenge for the ontological pragmatist is to to argue that they are entitled to the objective content of (4), rather than the merely evidential content of (5) and thereby be able to show that it is objectively correct to assert that there are tables, rather than merely be able to say that they have evidence that there is a table.

What if the ontological pragmatist cannot meet this challenge? Then it would be open to the mainstream ontologist to say that the pragmatist has only given us *evidence* that there are tables. But if we want to know whether or not tables *really* or *objectively* exist, we'll need to figure out whether or not we need to quantify over tables in our best total theory of the world. In other words, mainstream ontologists will claim that the pragmatist has merely told us about when speakers have evidence that there are tables, but we'll need to do mainstream ontology to really figure out whether or not tables exist. So if the ontological pragmatist isn't entitled to the objective content of (2), but merely the evidential content of (3), then there may still be room to go in for mainstream ontology.[18]

2. *The response*: To respond, I'll employ a solution due to Robert Brandom (2000: 185 - 204) made in response to the claim that pragmatist accounts of meaning cannot provide us with objective propositional contents, but only evidential ones. As Brandom notes, the problem Yablo describes about the ability to distinguish between conditions under which we have evidence for a claim from those in which we are objectively correct to make the claim is one of the central objections to pragmatist approaches to meaning:

> The biggest challenge to [pragmatism] stems from the fact that assertions are
> subject to two kinds of normative appraisal. We can ask whether an assertion

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[18]Note that this isn't just a problem with respect to objects with which we are empirically acquainted. For it may be that the fact that there are two kangaroos only gives us *evidence* that the number of kangaroos is two. Likewise, the fact that there is a red house may only give us *evidence* that that house has the property of being red.

is correct in the sense that the speaker was entitled to make it, perhaps in virtue of having reasons, evidence, or some other justification for it ... But we can also ask whether the assertion is correct in the sense of being *true*, in the sense that things are as it claims they are ... The challenge ... is to show how the conceptual raw materials [pragmatism] allows itself can be deployed so as to underwrite attributions of propositional content for which this sort of *objective* normative assessment is intelligible. (2000: 187)

As I read him, Yablo is waging essentially the same challenge to easy approaches to ontology. I'll therefore employ Brandom's own response to the challenge to Yablo's challenge to easy ontology.

Brandom's idea takes advantage of the fact that inferentialist accounts of meaning — like the one employed in the previous chapter — can look to *more* than the circumstances in which a sentence can be asserted or a term applied in fixing the meaning of a given linguistic expression. In Brandom's words:

We should not only look upstream, by asking what claims or circumstances commit or entitle us to the claim in question, but also downstream, by asking to what else the claim in question commits or entitles us as *consequences*. Further, we should take account of ... other claims [that] the claim in question is *incompatible* [with]. (2000: 196)

Brandom's idea is that the pragmatist can distinguish between the objective contents of a claim like (4) and the merely evidential content of (5), but only by looking at our *wider practice* of using these sentences in inferences, rather than merely looking at the conditions under which a term applies.

In the previous chapter, I described how the ontological pragmatist might highlight some of the *consequences* of applying terms. But the key notion that Brandom appeals to distinguish claims like (4) and (5) concerns the idea that certain claims can be *incompatible* with each other. Say that a speaker is *committed* to a claim just in case they endorse it and say that a speaker is *entitled* to a claim just in case they are justified in being committed to it. Then, according to Brandom,

INCOMPATIBILITY: A claim P is *incompatible* with a claim Q iff commitment to P precludes entitlement to Q.

His idea is that the material inferences constituting the meanings of our words and sentences will prevent us from being entitled to certain claims upon being committed to others. For example, if I am committed to the claim that this ball is blue all over, then I will no longer be entitled to the claim that this very same ball is green all over. For the material inferences which constitute the contents of 'blue' and 'green' preclude us from applying both to the same object.

With the notion of incompatibility in place, it's easy to see how a pragmatist can distinguish the contents of (4) and (5) and thereby meet Yablo's challenge. For example, while both claims may have the same application conditions, (5) — the claim that I have evidence that there is a table — is *incompatible* with the claim that

(6) There are no sentient beings who have evidence that there are tables.

However, (6) is not incompatible with (4) — the claim that there are tables. For, of course, there could be tables even if there were no sentient beings who had any evidence of tables; but if there were no sentient beings who had evidence of tables, then nobody would have evidence of the existence of tables.

What this Brandomian argument shows is that a pragmatist *can* distinguish the meanings of (4) and (5) and thereby be able to distinguish between it being correct to assert that there are tables from our merely having evidence that we can assert that there are tables. And this means the two claims have different truth-conditions. So, the ontological pragmatist can now safely assert (4) given (3) and be able to distinguish her assertion that there are tables from the claim that she merely has evidence that there are tables. And once we've secured that, we've secured the idea that it is objectively correct to say that there are tables. We can therefore distinguish objectively correct existence claims from those which say that we merely have evidence for the existence claim. So while it may be that thinking about application conditions alone won't be able to clearly mark the distinction between being correct in saying that certain things exist and merely having evidence that certain things exist, the pragmatist, by looking at our wider linguistic practice, can show that she is entitled to the claim that there objectively are tables and other entities. And notice that we can mark this distinction without doing anything like mainstream ontology. Instead, we simply have look at how such sentences are used within our wider linguistic practice.[19]

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[19] See Thomasson (2014b: 525) for her own response to this kind of objection. What is distinctive of the

4.3.3   Can conceptual truths be defeated?

1. *The objection*. I'll now move on to describing the details of another objection, this time targeting the conceptual truths the pragmatist relies on. The argument is best articulated by Matti Eklund (2017) in his review of Thomasson's *Ontology Made Easy*. In a nutshell, it claims that the conceptual truths easy ontologists rely on may be *defeated* by mainstream ontological arguments. To articulate the objection, I'll recall the crucial aspects of the ontological pragmatist's understanding of when a claim counts as a 'conceptual truth' before describing how Eklund's argument exploits this conception to formulate an objection to the view.

Recall that the ontological pragmatist, along with easy ontologist, claims that we can infer from an undisputed truth like 'There are two kangaroos' to a claim which introduces the application of numerical terms like 'The number of kangaroos is two' in virtue of our linguistic competence alone. For the ontological pragmatist, this is because she takes inferences like that from 'There are two kangaroos' to 'The number of kangaroos is two' to be an intra-linguistic, material inferences, constitutive of the meanings of singular terms like 'the number of kangaroos' and 'two'. In other words, in order for a speaker to mean what we mean by these terms, that speaker must take themselves to be entitled to the validity of these kinds of inferences.

Likewise, the pragmatist takes conditionals formed out of these inferences, e.g.

(7) If there are two kangaroos, then the number of kangaroos is two

to be *conceptual truths* insofar as they are object-language explications of the rules of usage constituting the meanings of the relevant numerical singular terms. For these reasons, the ontological pragmatist takes herself to have sufficient grounds for thinking that (7) is *true* and, therefore, that upon accepting that there are two kangaroos, we are entitled to accept that the number of kangaroos is equal to two, from which it follows that there exists a number — namely, the number two. Thus the sense in which (7) is a *conceptual truth* consists in the fact that we are justified in taking (7) to be true merely in virtue of knowing how to use numerical singular terms.

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response I've just given is that it comes from the particular kind of pragmatist theory of meaning I've been working with.

Note, the idea is that our knowing how to use numerical singular terms *justifies* our being entitled to take (7) to be true. This makes the notion of a conceptual truth in play an *epistemic* notion. In particular, the sort of conceptual truth in play is close to Paul Boghossian's (1996) celebrated conception of *epistemic* as opposed to *metaphysical* analyticity.[20] Where a statement is metaphysically analytic if it is true in virtue of its meaning alone, a statement is epistemically analytic 'provided that grasp of its meaning alone suffices for justified belief in its truth' (Boghossian, 1996: 236).

While epistemic conceptions of conceptual truth are typically taken to be much less suspicious than metaphysical conceptions, it is the epistemic nature of these conceptual truths which, Eklund claims, lands the easy ontologist into trouble. For example, suppose that speakers are entitled to take statements like (7) to be true in virtue of their linguistic competence. Eklund then poses the following question:

> How robust is the entitlement supposed to be? Compare two possibilities. One is that competence confers defeasible entitlement, but whether the competent speaker is entitled full stop depends on further facts about her epistemic situation. Another is that the competent speaker is entitled to make the inference regardless of other facts about her epistemic situation. I submit that the former, weaker claim is more reasonable. To relate to examples like the ones Thomasson uses: even the inference from 'the house is red' to 'the house has the property of being red' is defeasible. A speaker who has it on the testimony from a nominalist interlocutor who is known generally to be very reliable about philosophical matters that there are no properties may all things considered be entitled to accept the former but not the latter. (Eklund, 2017)

Allow me to elaborate on Eklund's argument. Eklund is agreeing that, given the pragmatist's understanding of the meanings of numerical singular terms, we are entitled, in some sense, to accept the truth of (7). It's just that such entitlement my be either *defeasible* or *indefeasible*. Eklund thinks our entitlement to (7) is plausibly only *defeasible* entitlement. And this means that, while the pragmatist might be entitled to take (7) to be true, there's

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[20]'Close' because Boghossian describes the relevant inferential moves in terms of *dispositions*, whereas Thomasson formulates these moves in terms of *entitlements*.

still a chance that (7) is *false*. For, given other factors in our epistemic situation, it could be that consequent of (7) is false, even though the antecedent is true.

What other factors would make it the case that we are no longer entitled to the claim that the number of kangaroos is two, but still entitled to the claim that there are two kangaroos? This is where the mainstream ontologist makes her appearance. Imagine that she shows the ontological pragmatist that all reference to and quantification over numbers may be safely paraphrased out of our best theory of the world. What exactly then is to stop us from thinking that this is *just the kind of further evidence* that could defeat our entitlement to the truth of (7)? If our entitlement to the truth of (7) is merely defeasible and if a mainstream ontologist has provided a sufficiently compelling argument that there are no numbers, then perhaps we now have enough reasons to think that (7) is *false*. But if this is true, then the ontological pragmatist will no longer be entitled to conclude that numbers and other objects exist by way of her easy arguments. For those easy arguments require that claims like (7) be conceptually *true*. Thus contrary to the ontological pragmatist, the mainstream ontologist is now in a position to reject the easy arguments.

2. *The response*: There are a number of things the pragmatist can say in response. First, suppose the pragmatist concedes that (7) is defeasible. Then, in order for (7) to be rendered false by a mainstream ontological argument, our entitlement to the truth of (7) given our use of numerical singular terms must be *weaker* than the evidence supplied by a mainstream ontological argument. In other words, the mainstream ontological argument *against* the existence of numbers must be *stronger* than the pragmatist's easy argument *for* the existence of numbers. But it's not clear that this is the case. For, as I argued in the previous section, there are a number of *epistemic worries* associated with mainstream ontology which aren't associated with the pragmatist's easy inferences. In particular, the mainstream ontologist's reliance on epistemically metaphysical inquiry would seem to be much more problematic than the pragmatist's reliance on conceptual truths. So while the mainstream ontologist may be able to wage an argument against the truth of (7), it's not clear that we should take this argument to be the kind of evidence which would render (7) defeasible. Therefore, even if conceptual truths like (7) are defeasible, it's not clear a mainstream ontological argument could defeat it.

In addition, might the pragmatist be able to claim that her entitlement to (7) is *in-*

defeasible? Eklund seems to leave this off the table, but consider the fact that, by saying that (7) makes explicit a meaning-constituting rule of usage for numerical terms, the ontological pragmatist is not only telling us which uses fix the meaning of 'two' and other terms. She is also providing us with her *canonical explanation* of a particular subject matter — our very idea of a number. Recall that to provide a pragmatist explanation of some subject matter just is to provide an explanation of the discourse of that subject matter in anti-representationalist terms. In the case of numbers, everything about this explanation hinges on our accepting inferential uses like those specified by (I-N). And (7) just makes those uses explicit. These kinds of inferences are all tied up with the pragmatist's explanation of other aspects of the concept of a number: how we come to know when it is correct to apply numerical terms and how it is that we can successfully refer to numbers. In addition, these meaning-constitutive inferences play a central role in the pragmatist's explanation of why it is that we even have the concept of a number: such inferences allow us to be able to communicate certain counting facts we couldn't otherwise express. So the pragmatist cannot grant that the inferences can be sensibly denied without giving up her whole explanation — and therefore her whole conception — of a number. All this, I think, leads to the idea that, from the pragmatist's point of view, we cannot reject the truth of (7) without *changing the subject matter* entirely. And this amounts to the claim that, we are epistemically justified in accepting (7) *indefeasibly, on pain of loosing the very idea of a number.*

Accepting that the easy inferences are indefeasible, gets the pragmatist around the above objection. For that objection relied on the assumption that (7) was defeasible. But care must be taken to ward off the idea that the pragmatist is making *too strong* a claim. For example, saying that (7) is indefeasible in this sense doesn't imply that accepting (7) is wholly unproblematic or that we are somehow infallible with respect to being committed to the existence of numbers. It could be, for example, that we have no good *pragmatic* grounds for employing numerical terms in a way that justifies the truth of (7). Perhaps, for example, our entire practice of counting things is (unbeknownst to us) so misguided that our practice of applying numerical terms breaks down entirely. Or perhaps the role such terms play in allowing us to make generalisations from counting facts isn't really desirable. If true, that would give us grounds for giving up on the idea of a number entirely, and so no longer continue talking of numbers at all. Thus, by claiming that we are indefeasibly

entitled to (7), we are not claiming that we are *infallible* with respect to the existence of numbers or that being committed to their existence is wholly unproblematic, for it could be that it was a mistake to even use numerical language in the first place.

But given that we have the concept of a number (in the pragmatist's sense) and given that we do think it's correct to go around counting things, the pragmatist can respond to the mainstream ontologist along the following lines: 'By 'number' I mean a term which is characterised by their canonical EMU. Perhaps such an EMU is problematic on pragmatic grounds, in which case we should argue about the relative desirability of engaging in such a practice. But I cannot see how (7) could plausibly be rejected, given that I would thereby end up rejecting my entire understanding of how numerical terms are used. Therefore, there's nothing the mainstream ontologist can say which will convince me that I am not justified in taking (7) to be true. Otherwise, I'd have to say we're just changing the subject.'[21]

4.3.4   Bad easy arguments

1. *The objection*: Let's now move on to consider the forth objection. This objection exploits the fear that endorsing easy approaches to ontology will commit us to the existence of *too many entities*, at least some of which *clearly don't exist.* This point has been raised by Tim Button (2016). I'll present the details of his concern here.

To start, consider the following 'bad' easy argument.

Bad easy argument

> (1b) Maya cheered up.
>
> (2b) Maya found her happy.
>
> (3c) There is a happy.

This is a 'bad' easy argument because the conclusion is implausible. In fact, the conclusion is plausibly not an acceptable assertion to make within our own linguistic practices. Intuitively, ordinary speakers don't countenance the existence of happies. However, it

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[21]There *may* be some issues here regarding 'Bad Company' style objections, as Eklund indicates. Unfortunately, these are broader issues which, given considerations of space, I'll have to leave for another time.

does seem like ordinary speakers are allowed to infer from (1b) to (2b). It seems perfectly acceptable in our ordinary linguistic practice to say that Maya found her happy on the condition that she's been cheered up. And since 'happy' looks like it's being used as a term, it would seem to follow that the application conditions for the term have been fulfilled. So an opponent of ontological pragmatism might think the pragmatist now has to claim that there are happies.

As Button argues, such arguments can be multiplied. Speakers seem to be able to infer from the claim that 'Alice was frightened' to 'Alice got the heebie-jeebies'. But this now looks like a situation in which 'the heebie-jeebies' correctly applies by the standards of our linguistic practice. Therefore, the ontological pragmatist runs the risk of having to claim that there are heebie-jeebies.

Now, the mainstream ontologist will certainly take themselves to be able to explain why there are no happies and heebie-jeebies: such entities do not need to be quantified over within a best theory of the world. So, by the lights of the mainstream ontologist, there are no happies and heebie-jeebies. The question is: can the pragmatist say that these entities don't exist without appealing to mainstream ontology?

One way out, is to go along with Button's own diagnosis of the problem.

> An obvious thought is that [(2b)] is nothing but a *restatement* of [(1b)]. Granted, at a purely syntactic level, one might say that [(2b)] involves a [two place predicate 'x found y']. But treating [(2b)] as being of that *form*, in any significant sense — that is, so that the inference to [(3c)] is to be regarded as 'valid in virtue of it's form' — would be an obvious mistake. (2016: 4)

The idea is that, 'happy' isn't really being used as a *term* in (2b) — an expression that refers to some object. Instead, 'I found my happy' is just another way of saying 'I cheered up'. If true, then the pragmatist can reject the validity of the inference from (2b) to (3c), since the term 'happy' doesn't actually apply, for it isn't really a term at all. Instead, it merely *restates* that someone cheered up.

What the pragmatist therefore needs is a way of explaining when an expression counts as a term in such a way that (2b) is significantly:

$$\overbrace{\text{Maya}}^{\text{term}} \underbrace{\text{found her happy}}_{\text{predicate}}$$

whereas, a claim like (2) is significantly:

$$\overbrace{\text{The number of kangaroos}}^{\text{term}} \underbrace{\text{is}}_{\text{predicate}} \overbrace{\text{two}}^{\text{term}}$$
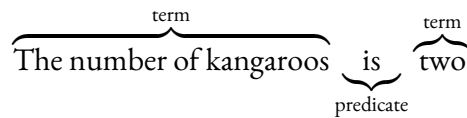
Such an explanation would distinguish the 'good' from the 'bad' easy arguments.

However, making this response might seem especially difficult for a *pragmatist*. This is because, by rejecting representationalism, the pragmatist looses the ability to provide a straightforward account of when a linguistic expression can significantly be said to be a term. For example, since the representationalist allows semantic notions like truth and reference to play an explanatory role in characterising linguistic items, she can simply define a term as that which has the function of purporting to *refer to* some object. So the representationalist can use the reference relation to explain when a linguistic expression counts as a term. However, since the pragmatist is an anti-representationalist, this explanation is unavailable to her.

Suppose the ontological pragmatist has no response. Then this would be *doubly* bad for the pragmatist. For now the mainstream ontologist who *denies* the existence of numbers can accept that the inference from 'There are two kangaroos' to 'The number of kangaroos is two' is valid within our ordinary linguistic practices. However, she'll insist that 'The number of kangaroos is two' is nothing but a *restatement* of 'There are two kangaroos'. In other words, it'll be open to the mainstream ontologist to claim that the second premise of any 'good' easy argument isn't a context in which a term is correctly being applied at all. If true, the ontological pragmatist won't be entitled to claim that things like numbers and ordinary objects exist.

To sum up, if the pragmatist isn't able to provide the right account of when a linguistic expression counts as a genuine singular or general term, then either she'll be saddled with countenancing the existence of many implausible objects or she'll open the door to a situation in which the mainstream ontologist can explain away the pragmatist's favourite easy arguments.

2. *The response*: So what's a pragmatist to do? Since the pragmatist can't appeal to reference to mark the distinction, she'll have to do so by instead looking at how the relevant expressions are *used*. And notice that simply looking at the sentence in isolation

won't do the trick. For 'happy' and 'the number of kangaroos' both *look* like terms when taken in isolation. So the pragmatist will have to look at the wider linguistic practice in which we make use of these expressions in order to say that 'her happy' isn't a referring expression, while 'the number of kangaroos' is.

Thankfully, a number of authors have already employed this kind of strategy (Brandom, 2000: 123 - 129; Button, 2016; Dummett, 1981; Hale and Wright, 2001; Quine, 1960).[22] To start, consider how Brandom distinguishes singular terms like 'the inventor of bifocals' from non-referring predicates like 'walks' and 'moves'. According to Brandom:

> [P]redicates, but not singular terms stand in 'one-way inferential involvements'. If the inference form 'Benjamin Franklin walked' to 'The inventor of bifocals walked' is a good one, then so is that from 'The inventor of bifocals walked' to 'Benjamin Franklin walked'. Substitutions for singular terms yield reversible inferences. But it does not follow that the inference from 'Benjamin Franklin moved' to 'Benjamin Franklin walked' is a good one just because the inference from 'Benjamin Franklin walked' to Benjamin Franklin moved' is a good one. Replacements of predicates need not yield reversible inferences. (2000: 135)

Brandom's idea is that we can tell whether or not a two expressions, t_1 and t_2, function as genuine singular terms by figuring out whether or not, by substituting one for the other, the resulting sentences yield *symmetrical* inferential uses. This is therefore a way to explain when an expression counts as a singular term by looking to its use in inference, which is just what the pragmatist wants.

Thankfully, it's relatively clear that we have a well worked out practice in which our actual use of numerical singular terms yields symmetrical inferences. For example, it is natural to infer from

(8) Fifty is an even number

to

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[22] Button actually suggests that Thomasson herself needs to respond in a similar way by employing, what he calls, 'Wittgenstein's context principle'. While I think that Wittgenstein's context principle, in Button's sense, coheres with ontological pragmatism, I avoid relying on it here to show that the challenge can be met on specifically pragmatist terms.

(9) The current number of stars on the American flag is an even number

and vice versa. This lends credence to the idea that the numerical expressions the pragmatist employs to wield her easy arguments consist in genuine applications of singular terms.

However, this is not the case with expressions like 'her happy' in (2b). There is no overall practice of deploying symmetrical inferences involving 'her happy'. At best, all we get with 'her happy' is a condition under which we can apply the expression in a single direction — namely, that from 'Someone cheered up' to 'Someone found their happy'.

Why is this? Consider Brandom's explanation of why singular terms yield symmetrical inferences, whereas other kinds of linguistic expressions do not.

> The criteria or circumstances of appropriate application of '... walks' form a proper subset of those of '... moves'. Singular terms, by contrast, are not materially involved in substitution inferences whose conclusions are inferentially weaker than their premises. To introduce a singular term into a language, *one must specify not only criteria of application but also criteria of identity, specifying which expressions are intersubstitutable with it.* (2000: 135, *my emphasis*)

Thus, presumably, the reason 'her happy' doesn't figure in symmetrical inferences within our linguistic practice is because our practice doesn't treat the expression as having any *criteria of identity*. However, explicating such criteria is precisely the point of introducing sentences like

(10) The current number of stars on the American flag is fifty.

For, in these contexts we are embedding two singular terms within a sentence containing the 'is' of *identity*. But there are no clear uses of 'her happy' which enable us to use another expression to say that her happy is identical to something.

In fact, Thomasson herself appeals to similar criteria to ward off these kinds of objections. According to Thomasson, application conditions are not the *only* rules of use for our terms:

> It is a basic part of my view ... that, in addition to application conditions, for a term to be a sortal term (or name) at all, it must also come associated

with coapplication conditions: conditions determining when the term may be reapplied in a way that will entitle us to say it's applied 'to one and the same S' — thus establishing identity conditions for S (if any there be). (2015: 222 - 223)

Thus, in the same way, in order for a sortal term — a general term like 'table', for example — to be considered a genuine referring expression, we need to look to the wider linguistic practice in which we reapply the expression saying, for example, that

(11) That's the same table as the table we had on the patio in our old house.

Surely there are many uses such as these within our wider linguistic practice of applying general terms for composite ordinary objects. For example, we can say that those teacups are the same teacups I had on hold in the antique store or that the tree in the garden is the same tree my grandfather planted in 1952.

However, again, it isn't clear there are such uses concerning 'her happy'. Instead, we merely have a rule in which we are licensed to move from the claim that someone cheered up to the claim that someone found their happy. But since there are no uses employing criteria of identity, this gives us grounds for thinking an expression like 'her happy' isn't genuinely being used as a term. However, since our wider linguistic practice does employ such uses for composite ordinary object terms and numerical terms, the ontological pragmatist has reasons for thinking that these expressions *are being used as genuine terms* and therefore that they pick out objects, rather than restate their conditions of application. So it seems that the pragmatist can mark a distinction between 'good' easy arguments involving numerical and ordinary object terms and 'bad' easy arguments regarding expressions like 'her happy'.

However, before moving on, allow me to further clarify this solution by responding to another argument Button makes against easy ontology. According to Button, one of the upshots of having to look at our wider linguistic practice in which we discover that we use certain expressions in identity contexts is that this strategy might lead to certain *tensions* regarding our use of other terms for which the easy ontologist wants to able to build easy arguments. He suggests there are tensions arising from our use of property terms, ordinary object terms, and terms purporting to denote mereological sums, like the

composite object formed out of the fusion of two tables in a dining room.[23] In my view, these tensions all center around the following phenomena, described in this passage:

> A basic philosophical experience is to be pulled in different directions by your 'ordinary' commitments. Some of these tensions can be brought out with nothing more than a pair of well-posed questions, whilst others take years of thought to expose. We encounter these tensions when we first read a Socratic dialogue; again when we are taught philosophy; still further when we teach it; and at every stage of honest reflection. So, for any given area of philosophical controversy, we should expect that our 'ordinary' usage will be subject to tensions which push us in different directions, and which undermine the idea that we could read a theory off from ordinary usage. Different people break in different directions in response to that tension. (2016: 21)

Button's idea is that if we focus on 'ordinary usage' we'll likely end up with tensions regarding whether or not we really treat property terms, terms for propositions, and terms for mereological sums, in ways that vindicate the idea that these expressions are there to pick up on *objects*. Therefore, according to Button, merely looking at our ordinary usage may not be able to vindicate all the easy arguments an ontological pragmatist wants to be able to make.

In response, while I've been focusing on looking towards our ordinary usage of terms in various identity contexts, the ontological pragmatist needn't stick solely to 'ordinary usage'. Ultimately, whether or not a given expression is to count as a term, from the perspective of the ontological pragmatist, should be decided upon by considering *whether or not it is useful* for us to treat these expressions as terms. Thus, whenever a tension arises regarding whether or not we treat, say, expressions like 'the property of being red' as genuine *terms* in ordinary language, the pragmatist will always have the option of deciding whether or not we should treat these expressions as terms *on pragmatic grounds*. The language we use is a living language; but the life we give to it is, for the pragmatist, a matter of the usefulness of talking in a certain way. Thus, even if there are tensions arising from

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[23] To my mind, there do seem to be reasons to think we ordinarily use terms for, say, properties as genuinely picking out objects. For example, we do seem to have a practice of using the term 'the property of being slimy' in identity statements: 'That frog and that worm have something in common: the property of being slimy'.

ordinary usage, the ontological pragmatist can always break this tension by providing practical reasons for treating various expressions as genuine terms or for treating them as mere restatements of sentences which don't ontologically commit us to a new object. As argued in the previous chapter, we have good reasons for treating numerical terms and ordinary object terms in this way, but it doesn't look like we have the same practical considerations for terms like 'her happy'. And none of this means we have reasons for going in for mainstream ontology. For adjudicating between these tensions consists in arguing over the practical advantages of talking in certain ways, rather than figuring out what must be quantified over in a best theory of the world.

4.3.5 The no-exit challenge

1. *The objection*. The final objection I'll be discussing is posed from an unlikely corner: that of *local* pragmatists, like Simon Blackburn. The argument has been named the 'no-exit' challenge and suggests that pragmatism is a necessarily local view. In order to describe the details of this challenge, I'll highlight why the idea that pragmatism is a necessarily local view poses a challenge to ontological pragmatism as I've formulated it. I'll then move on to describing the no-exit challenge in detail.

To start, what is a local pragmatist? In the previous chapter, I followed Williams in saying that offering a pragmatist account of some philosophical subject matter consists in adhering to both linguistic priority and anti-representationalism. For example, a pragmatist account of mathematics would consist in (a) theorising about mathematical vocabulary and (b) doing so by characterising mathematical vocabulary in terms of the usage rules governing mathematical expressions, making sure that representational notions like truth and reference play no explanatory role. *Local* pragmatists are those philosophers who think that, while pragmatists accounts of this kind are able to explain *some* of our vocabularies — mathematics, morality, and modality, say — they are not able to to explain others. By contrast, we can define a *global* pragmatist as someone who's willing to go in for pragmatist explanations about *all* vocabularies, rather than some.

If local pragmatism is the only kind of pragmatism available, then this presents three potential challenges. First, ontological pragmatism is, on the face of it, a *general* view about how existence questions are to be answered. For example, the ontological pragmatist asserts that any time we have a correct application of a term 'k', we'll be able to conclude

that ks exist. Therefore, any kind of vocabulary in which terms can be correctly said to apply will be one in which the ontological pragmatist will want to say that we are entitled to an existence claim. But pretty much all of our vocabularies would seem to exhibit instances in which terms can be said to correctly or incorrectly apply. Therefore it would be good if the ontological pragmatist could preserve the claim that her view is a sufficiently general account of how to arrive at answers to existence questions.

Second, supposing that ontological pragmatism is only applicable to vocabularies like mathematics and modality but not to, say, ordinary composite objects like tables and chairs, then, while the scope of mainstream ontology may be more limited than once thought, mainstream ontology will still be allowed to thrive in certain areas. Thus we could safely engage in mainstream ontology in some areas, while going in for pragmatist accounts in others. And this would threaten the ontological pragmatist's general critique of mainstream ontology — that such a way of handling existence questions is *misguided*.

Finally, as we'll see, Blackburn's main argument for local over global versions of pragmatism suggests that the discourses for which there can be no pragmatist explanations are precisely the sort of 'common-sense' discourses in which we talk about trees, tables, chairs, and other entities in our immediate environment. I've argued that we can provide good pragmatist explanations of these parts of our discourse. Therefore, this argument for local pragmatism would seem to challenge ontological pragmatism as I've formulated it. Thus it will be worth going over Blackburn's argument to see that ontological pragmatism can respond to this challenge.

What is the argument to the effect that pragmatism is necessarily a *local* position? The first premise of the argument goes like this:

> I am much less certain about *global* pragmatism, the overall rout of the representationalists apparently promised by Rorty and perhaps by Robert Brandom. The reason is obvious enough. It is what Robert Kraut, investigating similar themes, calls the no-exit problem. It points out blandly enough, that even genealogical and anthropological stories have to start somewhere. There are things that even pragmatists have to rely upon, as they produce what they regard as their better understandings of the functions of pieces of discourse ... Such genealogical stories start with a common-sense background of us and a world of physical objects, with distinct locations, changing only

according to distinct regularities with a distinct speed limit. (2013: 78)

Thus the first thing Blackburn claims is that pragmatists have to take certain things for granted in order to provide explanations of, say, mathematical or moral vocabulary. In particular, Blackburn claims they need to assume a 'common-sense background' which takes things like human beings and physical objects existing in space-time for granted. For example, a pragmatist account of mathematics may have to assume that there are human beings who have the capacity to count various physical objects in order to adequately explain the why it is useful to have mathematical singular terms. Likewise, in order to explain our use of moral vocabulary, pragmatists may have to assume the existence of sentient creatures who manifest certain sentiments in order to explain that moral predicates are useful for voicing these sentiments.[24]

Why assume this common-sense background? Notice that assuming a background of common-sense will allow the pragmatist to fulfil two interrelated desiderata. First, by employing this background, the pragmatist doesn't need to invoke an ontology of numbers and moral properties in order to explain why it is useful for us to deploy terms like 'the number two' or 'good'. In other words, the pragmatist's explanation of the usefulness of these terms requires no *ontological justification*, in the sense of appealing to the existence of the numbers and moral properties themselves. Instead, we can simply appeal to ourselves and our physical surroundings to provide our favourite pragmatist explanations. This allows the pragmatist to *avoid metaphysics*.

Second, because the pragmatist doesn't have to appeal to numbers and moral properties in her explanations of numerical and moral language, assuming the common-sense background allows the pragmatist to *avoid representationalist* explanations of these vocabularies. After all, if the number two and the property of goodness aren't involved in our explanation of the *terms* 'the number two' and 'good', then likewise our explanation need not involve saying that 'the number two' and 'good' are there to *refer* to the number two and the property of goodness. Thus assuming the common sense-background can allow the pragmatist to be both a metaphysical quietist and an anti-representationalist, which is just part and parcel of being a pragmatist.

So far so good. However, according to Blackburn, the problem for a global pragmatist

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[24]This is especially true of Blackburn's moral 'quasi-realism' which he takes to be a kind of (local) pragmatism.

arrises when we ask whether or not we can provide pragmatist explanations of our talk of the objects which make up this common-sense background:

> If we insisted instead on posing the Carnapian sounding external question, how come that we go in for descriptions of the world in terms of surrounding middle-sized dry goods? Then the answer is only going to be a flat-footed stutter or self-pat on the back: it is because we are indeed surrounded by middle-sized dry goods. That answer, obviously, draws on the referential resources of the object language and, according to the account in front of us, amounts to a victory for representationalism over pragmatism. (2013: 78-79)

The 'Carnapian sounding external question' here is the question of why it is useful for us to employ terms for 'middle-sized dry goods' like tables, eggs, and other composite ordinary objects. The challenge, according to Blackburn, is the following: because we are now asking questions about the utility of the vocabulary of the common-sense background, and because this is precisely the kind of vocabulary the pragmatist must assume in order to fulfil the twin desiderata of metaphysical quietism and anti-representationalism, there are now no longer any assumptions left for the pragmatist to stand on. Hence, in Blackburn's view, the best explanation the pragmatist can provide of our talk of ordinary objects and other entities within our shared back ground of common-sense is simply the to say that *we are surrounded by these things and therefore employ the language to refer to them*. That's why it's useful for us to talk of tables, trees, and other kinds of common-sense objets.

But now the pragmatist seems to have conceded that her explanation of these vocabulary items is unable to do justice to metaphysical quietism and anti-representationalism. It is unable to do justice to metaphysical quietism because talk of tables, trees, and human beings is given an *ontological justification*: it's useful for us to talk that way because *there are tables, trees, and human beings*. In addition, the explanation is unable to do justice to anti-representationalism because we are now *using* terms like 'tree', 'table' or 'human being' in order to point out that these objects are in our surroundings. And this looks like we're simply using these terms to *refer* to tables, trees, and human beings. Therefore, the explanation isn't able to justice to either metaphysical quietism or or anti-representationalism. But any account of some bit of our language which is unable to do justice to metaphysical quietism and anti-representationalism isn't a genuine instance of pragmatism, in the relevant sense. Thus, according to Blackburn, there are some vocabularies for which a

pragmatist treatment is out of reach; therefore, pragmatism is a necessarily *local* position. This is Blackburn's 'no-exit' challenge.

2. *The response*. Can the challenge be met? One reason that I think it can is that I've already described how an EMU for the vocabulary of certain objects within our shared background of common-sense — ordinary composite objects like tables and chairs — might go. In the previous chapter, I argued that such EMUs are indeed anti-representationalist and moreover coincide with the pragmatist's commitment to metaphysical quietism. In addition, much of Thomasson's (2007a) early work on easy ontology was concerned with developing the view with respect to these very same common-sense objects. Thus if the pragmatist can be an easy ontologist, then the pragmatist would seem to be allowed to coast in Thoamsson's wake. In fact, in a (forthcoming) paper Thomasson shows how her account of the existence of ordinary, common-sense objects can be used to defend global pragmatism from the no-exit challenge. In what follows, I'll deploy Thomasson's argument in that paper, along with claims I've made in the previous chapter, to show how pragmatists can adequately respond to the no-exit challenge.

Let's start by noting that, to meet the challenge, the global pragmatist will have to be able provide a particular kind of answer to Blackburn's 'Carnapian sounding external question':

 (Q) How come we go in for descriptions of the world in terms of surrounding middle-sized dry goods?

The global pragmatist's answer will have to do two things. First, it'll have to show that our answer doesn't rely on there being any kind of *metaphysical* or *ontological* justification for our adopting the practice of describing the world in terms of middle-sized dry goods. In other words, we'll have to show that we can provide an answer to (Q) which doesn't, in a flat-footed way, say: *because middle-sized dry goods exist*. Second, our answer to (Q) shouldn't rely on any representationalist presuppositions. In other words, our answer won't bottom out in saying that we have such terms *to refer to middle-sized dry goods*.

Now, Thomasson (forthcoming: 8) helpfully notes that (Q) is ambiguous between at least two, more precise, *contrastive* questions.[25]

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[25]Actually, Thomasson also highlights another contrastive question: Why do we go in for descriptions of

(Q1) How come we go in for descriptions of the world in terms of tables and trees as opposed to dragons and phlogiston?

(Q2) How come we go in for descriptions of the world in terms of tables and trees as opposed to particles arranged table-wise — that is, why do we go in for our own descriptions rather than some *ontologically alternative* descriptions?[26]

As Thomasson claims, 'It is the former question', we 'have in mind when we are tempted to say simply: it is because *there are* tables and trees' (forthcoming: 8). Thus it is (Q1) which elicits the intuition that there's nothing left to say other than that middle-sized dry goods, like tables and trees exist, while other things like dragons and phlogiston don't.

However, Thomasson argues that this response is actually consistent with pragmatism about our talk of middle-sized dry goods:

> But the pragmatist has a ready line of response if we interpret the question this way: the first set of concepts turns out to be successful in prediction, explanation, navigation; to not be based on imaginings, misperceptions, or other empirical mistakes; and are otherwise non-problematic. (forthcoming: 8)

Thomasson's idea is that our use of terms like 'table' and 'tree' turns out to be empirically successful in a way that 'dragon' or 'phlogiston' is not, and that this is not inconsistent with pragmatist explanations. Thus when we use terms like 'tree' or 'table' we are not usually making empirical mistakes or imagining things, whereas, in the case of dragons and phlogiston, if we ended up describing the world in these terms, we *would* seem to be guilty of of some sort of misperception, imagining or other empirical mistake. And it isn't obvious that this explanation requires going in for the kind of difficult theorising emblematic of things like mainstream ontology. Nor is it obvious that this explanation rests, in some way on, representationalism.

To make this clearer and to see why the ontological pragmatist specifically is entitled to a response of this kind, allow me to highlight how the EMU for composite object terms

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middle sized dry goods, as opposed to not employing descriptive modes of speech at all? However, I think I'm able to respond to the challenge by merely focusing on the other two.

[26]By an 'ontologically alternative' description Thomasson means whatever sort of paraphrase a mainstream ontologist wants to use in place of terms like 'table'. Hence, 'particles arranged table-wise'.

devised in the previous chapter, along with the EMU for 'exists', allows the ontological pragmatist to say, *in anti-representationalist terms and without engaging in mainstream ontology*, that tables and trees exist in such empirical conditions.

First, recall that, for the ontological pragmatist, being able to correctly say that things like 'trees exist' requires figuring out whether or not a term like 'tree' can be correctly used or applied. For composite ordinary object terms, one route this can take is via a *language-entry rule*, which says that we are warranted in asserting a sentence containing the term 'tree' in a given environmental or stimulatory situation (see clause (I-O)-(a)-(1) in the EMU for composite objects in the previous chapter). Knowing that you are in such environmental situations requires being trained to empirically discriminate when sentences containing 'tree' are assertable and when they are not. And we find, generally, that applying 'tree' or 'table' under these conditions is generally successful in predication, navigation, and explanation, while this isn't the case for terms like 'dragon' and 'phlogiston'.

But once we are able to make the right empirical discriminations, we'll be in a position to know that 'tree' applies in a *that* situation. We'll therefore be able to conclude by the introduction-rule for 'exists' (See (E-1-b) of the previous chapter in particular) that we can say 'Trees exist'. However, this won't be true for terms like 'dragon' because, assuming one is able to discriminate between those empirical conditions under which 'dragon' would apply or be correctly assertable, such conditions simply don't arise. In this way, the ontological pragmatist can use EMUs like those devised in the previous chapter to reveal why it's correct to say that trees exist and dragons don't.

Notice that the ontological pragmatist's explanation here is entirely consistent with both anti-representationalism and metaphysical quietism. It is consistent with anti-representationalism because nothing in the EMUs explaining why it is correct to say that tables exist will appeal to semantic relations like reference as explanatory primitives. Of course, the ontological pragmatist isn't *denying* that in the right environmental situations, 'tree' successfully refers. It's just that, for the pragmatist, referential success is accounted for in terms of application conditions. And for an application condition to be fulfilled just is for the usage-rules for the term to be fulfilled — in this case for a language-entry rule to be fulfilled. Thus reference isn't explaining use, use is explaining reference.

In addition, nothing about this explanation requires us to go in for anything like mainstream ontology in order to vindicate the existence of tables and trees. In other words,

the account doesn't require attempting to formulate a best total theory of the world, trading off various theoretical virtues, and figuring out what the quantifiers of our best theory must range over in order for it to be true. So the ontological pragmatist can't be accused of doing metaphysics.

What about (Q2)? Is there an answer to this question which is consistent with both anti-representationalism and metaphysical quietism? The question here is whether or not we can provide a *pragmatic* explanation for why we use terms like 'table' and 'tree' rather than simply speaking a language in which we *refuse* to use these terms and instead go around using phrases like 'particles arranged table-wise'.

I think it's clear that there are good pragmatist answers to (Q2) as well. For example, Thomasson highlights the following possibility:

> Rather than appealing to its ontological accuracy, one could explain the preferableness of the objectual conceptual scheme (or thing language) by appeal to the way in which it is more cognitively efficient for creatures like us than simply tracking changing features, or individuating the world in terms of sequenced temporal parts, or tracking particles and ways they are arranged; or by showing ways in which it fits better with the constraints of our evolved perceptual system (since we can't perceive particles), etc. (forthcoming: 11)

Thomasson's gloss on how these explanations might go is similar to the explanation I gave regarding the possible expressive function of our use of composite object terms like 'table' and 'tree' highlighted by clause (O-F) in the previous chapter. In particular, I said that one pragmatic explanation we can provide is to say that speakers go in for the usage rules which constitute the meanings of terms like 'tree' and 'table', rather than refusing to use these terms and instead describing the environment in terms of particles being arranged in certain ways because it allows us to more conveniently streamline communication about our surroundings, especially when what we want to indicate does not rely on distinctions between the particles themselves.

Given these kinds of explanations our use of terms like 'table' and 'tree' can be seen as being merely practically advantageous, rather than presenting the most accurate representation of our surroundings via semantic relations like reference. Therefore the explanation can't be accused to not doing justice to anti-representationalism. In addition, this explanation doesn't appeal to the idea that we go in for descriptions of the world in terms of tables

and trees, rather than particles being arranged in certain ways, because composite objects like tables and trees must be quantified over within a best theory of the world. In other words, the kind of answer provided by clauses like (O-F) merely says that it's practically advantageous for us to use terms like 'table' and 'tree'. Our use of these terms is therefore not justified by the idea that composite objects form part of the true, fundamental, inventory of the world. Therefore the pragmatist's answer to (Q2) is also sufficiently metaphysically quietist.

The upshot is that endorsing ontological pragmatism allows the global pragmatist to respond to the 'no-exit' challenge. This is a nice feature of the view from the point of view of global pragmatism more generally. So global pragmatists would do well to be ontological pragmatists.

This completes my defence of ontological pragmatism from a variety of objections. To sum up, I've argued for the following points: (1) that the ontological pragmatist isn't an implicit linguistic idealist; (2) that our pragmatist can discriminate between it being objectively correct to claim that there are tables and other objects from our merely having evidence of these entities; (3) that mainstream ontological inquiry cannot defeat the conceptual truths pragmatists rely on; (4) that pragmatist can avoid bad easy arguments while maintaining the good ones; and finally, (5) that ontological pragmatism can hold out the promise of being a sufficiently global view.

4.4   Conclusions

To conclude, in arguing for the above points I hope that I've presented a fairly rigorous defence of ontological pragmatism in the face of a variety of objections. Thus our metaontological fence-sitters don't have much cause for concern in endorsing the view. In addition, I've also argued that ontological pragmatism is well motivated: that, unlike mainstream ontology, it is able to preserve the sort of answers to ontological questions that we would expect, avoiding explanatory costs; that it relies and a better epistemology than does mainstream ontology; and finally, that we can use it to provide a way of seeing how our talk of various different kinds of objects fits into a broadly naturalistic worldview, without incurring any of the metaphysical and epistemological drawbacks of mainstream

ontology.

Thus by arguing that the view is well motivated and defensible, I hope I've done enough to persuade both pragmatists and metaontological fence-sitters alike that ontological pragmatism is plausible.

5

Does Fictionalism Rest on a Mistake?

We shall not cease from exploration
And the end of all our exploring
Will be to arrive where we started
And know the place for the first time.

– T.S. Eliot, *Little Gidding*

5.1   On arriving at different destinations

In this chapter, I want to apply ontological pragmatism to debates in the philosophy of mathematics. In particular, I want to do so by comparing the view to one of its main rivals: a position called 'hermeneutic fictionalism', defended by Stephen Yablo (2000; 2001; 2002; 2005).

The two views have a lot in common. Both share an interest in providing an account of our actual practice of employing numerical terms in order to take a stand on whether or not numbers exist. Both are sceptical of the assumption that the best way to theorise about mathematical language consists in assuming that it purports to represent mathematical reality. And both are opposed to the usual forms of Platonism and nominalism as they are typically thought of in mainstream ontological debates.

However, there is one crucial point of contention between them. Where the ontological pragmatist claims that close attention to our use of mathematical discourse gives us reasons for *accepting* the existence of mathematical entities, the hermeneutic fictionalist claims that close attention to our use of mathematical discourse suggests that ordinary speakers were never even committed these entities in the first place. Thus, while the two views often walk hand in hand, they nevertheless arrive at different destinations.

Thus, one side of my argument will be defensive: to show you that the best destination is the pragmatist's one. However, since the two views *do* so often walk hand in hand, I want to exploit these similarities in an effort to put pragmatism on the map as a live option in philosophy of mathematics. While pragmatist views haven't been sufficiently developed or taken seriously in debates over the existence of numbers, Yablo's hermeneutic fictionalism is one of the most influential views in the philosophy of mathematics today. My overall goal therefore is to argue that pragmatism does at least as well in some areas — and even better in others — in providing an accurate account of our actual mathematical practice.

Here's how this chapter goes. Again, the main point of contention between fictionalism and pragmatism is the following. Where pragmatists claim that theorising about our ordinary use of numerical terms gives us reason to go along with ordinary speakers and accept the existence of numbers, the fictionalist argues that the best interpretation of our use of numerical terms gives us reason to think that speakers were never committed to numbers in the first place. Therefore, after more clearly describing pragmatism and fictionalism respectively, I'll discuss three arguments the fictionalist is entitled to make against the pragmatist's claim that the best interpretation of mathematical discourse gives us reasons to accept the existence of numbers.

The first argument relies on an *analogy* between the usefulness of adopting a practice of employing numerical terms and our employment of overtly fictional language. As it turns out, my pragmatist and Yablo's fictionalist tell the same story about the practical point of introducing mathematical terms into a language. However, according to Yablo, such an account makes our use of mathematical terms look analogous to our use of fictional language. To counter this argument, I'll provide three *disanalogies* between mathematical language and fictional language, and suggest that Yablo will have considerable difficulties in responding to them. Since the disanalogies outweigh the analogy, this gives us reason to prefer pragmatism about mathematics.

The second argument concerns two puzzle cases Yablo employs to argue that ordinary speakers should not be interpreted as literally committing themselves to the existence of numbers. To respond, I'll show that these arguments rely on the assumption that the existence of numbers could only be established by a sufficiently *metaphysical* argument, rather than the kinds of easy arguments my pragmatist endorses. Once this assumption is rejected, the ontological pragmatist can explain these puzzle cases just as well as the fictonalist.

Finally, I'll end with some concerns regarding the indispensability of mathematics to the physical sciences. As it turns out, both pragmatism and fictionalism are able to account for the indispensability of mathematics in science by showing that mathematical discourse is *pragmatically* indispensable to science. Utilising an argument from David Manley (2009), the fictionalist can claim that the merely pragmatic indispensability of mathematics gives us reason to think that we shouldn't think that numbers really exist. To counter this argument, I'll claim that the merely pragmatic indispensability of mathematics doesn't provide us with any reason to *deny* that numbers exist. For such a position again assumes that there is an open metaphysical question regarding the existence of numbers, and this assumption is again one the pragmatist can safely reject. Nevertheless, the pragmatist can — just like the fictionalist — lay claim to a nice explanation of why we find mathematics indispensable to science.

Thus not only can the pragmatist respond to the fictionalist's arguments, but, on balance, it is pragmatism that provides a more plausible interpretation of our use of mathematical terms. In fact, as the last two defences of pragmatism establish, the only reason we have to favour fictionalism over pragmatism relies on the mistaken assumption that the existence of numbers requires a metaphysical justification. But, as I'll argue, the pragmatist gives us reasons to think this assumption rests upon a mistake.

5.2   Pragmatism about mathematics

In chapter 2, I described how an ontological pragmatist can provide an account of our use of numerical terms and establish the existence of mathematical objects. Let's call this view 'pragmatism about mathematics'. Such a view consists in two broad ideas. First, a particular kind of explanation of the meanings of mathematical terms. Second, a resulting

deflationary realism about the existence of numbers. Let's start by going over the details of this view.

First, I suggested that it is open to a pragmatist to provide a characterisation of the meanings of numerical singular terms by way of a use-theory of meaning. Here, the patterns of usage constituting the meaning of a given numerical singular term corresponds to our willingness to employ such terms in *inferences*, codified by the following schema:

(N): There are n xs iff the number of xs is n.

In addition, I claimed that (N) should be thought of as a *conceptual truth* and that the *practical reason* or 'function' explaining why speakers employ numerical singular terms in this way consists in the fact that making these inferences allow speakers to be able to express uncountably many counting facts in a finite way.

More carefully, pragmatism about mathematics provides an explanation of the meanings of numerical singular terms by employing the following explanation of meaning in terms of use, or 'EMU' for short (Williams, 2010; 2013). The EMU breaks down into three essential components.

EMU for mathematical terms

1. (I-N): A *material inferential* (intra-linguistic) component. In general, the inference from 'There are two kangaroos' to 'The number of kangaroos is two' and vice versa, is always good; the inference from 'There are five stumps' to 'The number of stumps is five', and vice versa, is always good, and so on.

2. (E-N): An *epistemological* component. Such inferences are primitively acceptable (a priori). Competent speakers take these inferences to issue in *conceptual truths* on the basis of their mastery of the use of numerical terms.

3. (F-N): A *functional* component. Numerical terms are important as representational aids, enabling us to communicate counting facts that would be much more difficult to express with out the use of numerical terms. For example, being able to communicate certain infinite disjunctions of counting facts in a finite fashion.

Each component of the EMU plays a different explanatory role. The first two components (I-N) and (E-N) explain the meanings of numerical singular terms like 'the number of kangaroos' and 'five' in terms of the rules of usage speakers conform to in deploying such terms. The role of (I-N) is to specify the inferences which *constitute* the meanings of numerical singular terms — what it is for numerical terms to mean what they do. The role of (E-N) is to explain how it is that speakers come to *know* that they are entitled to make such inferences.

The role of (F-N) is then said to explain *why it is* that speakers perform such inferential uses in the first place — why it is that we deploy numerical singular terms at all. Such an explanation is supposed to consist in a practical, as opposed to a theoretical, reason why we make such inferences — some practical advantage gained by the speaker in making such a performance. According to (F-N), the *raison d'etre* for introducing numerical singular terms into a language consists in the fact that speakers can communicate infinite disjunctions of counting facts like

> (1) There exists either one kangaroo and zero wallabies or two kangaroos and one wallaby or three kangaroos and two wallabies or four kangaroos and three wallabies...

far more succinctly by applying numerical singular terms and wielding a single sentence:

> (2) The number of kangaroos is greater than the number of wallabies.

Because numerical singular terms are used in accordance with (N) above, by asserting (2) speakers will be in a position to know that (1) holds by reasoning their way from instances of the right-hand-side to the left-hand-side of the schema. This allows them to communicate the infinite disjunction (1) by employing the far more easily assertible (2). Speakers therefore have good practical reasons to adopt the practice of using numerical terms in the way specified by (I-N) above.

That's the pragmatist's explanation of the *meanings* of numerical singular terms. I also claimed that this explanation leads to a *deflationary* metaontology along the lines of Thomasson's 'easy ontology' (2013; 2015). In particular, pragmatism about mathematics claims that we can *trivially* prove the existence of numbers without engaging in controversial arguments concerning whether or not numbers must be quantified over in a maximally virtuous theory of the world. This contrasts pragmatism with, what I called, 'mainstream ontology'.

To do so, the pragmatist follows Thomasson in endorsing the following account of the referential success of a term 'k'.

(R) 'k' refers iff the actual application conditions for 'k' are fulfilled.

And, similar to Thomasson, the pragmatist claims that the application conditions for numerical terms are just those conditions in which a speaker is entitled to introduce a numerical singular term by preforming the kinds of inferences specified by (I-N). Thus the conditions under which a speaker can apply the terms 'the number of kangaroos' and 'two' in the sentence 'The number of kangaroos is two' consists in the speakers' being committed to the claim that there are two kangaroos.

Such an account allows the pragmatist to follow Thomasson in building the following 'easy argument'.

The easy argument

>(1p) There are two kangaroos.
>
>(2p) The number of kangaroos is two.
>
>(3c) There is a number — namely, the number two.

Here, the pragmatist starts out with the uncontroversial truth (1p). Then, given (I-N) and (E-N), the pragmatist claims that we are entitled to (2p), since it is a conceptual truth that if (1p) is true, then (2p) is true. But, by the time we get to (2p), the pragmatist will claim that the numerical singular terms successfully refer. This is because she accepts (R) and the application condition for the terms 'the number of kangaroos' and 'two' consists in nothing more than (1p) being true. We have thus successfully referred to a number — namely, the number two. And because we've successfully picked out a number, it can hardly be denied that (3c) is true. Therefore, numbers exist.

The pragmatist is thus committed to the claim that the existence of numbers is easy to establish. In fact, like Carnap (1950/56) before her, the pragmatist thinks that there is *no coherent stance* from which a metaphysician can *refuse* to accept the easy arguments. After all, the easy argument goes through simply by accepting an uncontroversial truth and using numerical singular terms in the way that constitutes their meanings. So, in denying the easy argument, the mainstream ontologist will have to also reject the rules of use which

constitute the meanings of expressions like 'two'. But then, in asking 'Does the number two exist?' the mainstream ontologist asks a *meaningless* question. For it is conformity to the EMU above which dictates use.

In fact, in the special case of numbers, the pragmatist can claim that the very thought that numbers may not exist is *absurd*. Suppose, for *reductio*, that there are no numbers. So, there are exactly zero numbers. But, by an application of (N), it follows that the number of numbers is zero. And, by making that kind of claim, the application conditions for 'zero' and 'the number of numbers' will have been fulfilled. Therefore, by (R), we have successfully referred to a number — the number zero. So a number — the number zero — exists. Thus, there is no standpoint from which the mainstream ontologist can really wonder whether or not there are numbers. Pragmatists will therefore be *quietists* with respect to metaphysical debates over the existence of numbers. They'll think that such debates rest upon a mistake.

For these reasons, the pragmatist about mathematics will be a deflationary realist about the existence of numbers. She'll therefore take ontological commitment to numbers to be perfectly legitimate, but insist that in making such a claim she does not engage in any metaphysical debates like those conducted by mainstream ontologists. Instead, in claiming that numbers exist, she'll take her self to merely be making sense of our actual mathematical claims by theorising about the use and function of numerical discourse. In this sense, pragmatism about mathematics is supposed to give us reasons to think that the best interpretation of our actual use of mathematical terms results in the acceptance of the existence of numbers.

5.3   Fictionalism about mathematics

I'll now introduce the details of Yablo's fictionalism. To do this, I'll introduce his two major claims — his construal of mathematics as fiction and his claim about the expressive function of mathematical discourse — which I'll highlight as '(Fic)' and '(Fun)', respectively. I'll then present Yablo's argument to the effect that the two claims *belong together*. As we'll see, the mathematical pragmatist endorses (Fun), but rejects (Fic). Thus in presenting Yablo's argument that (Fun) and (Fic) belong together, I'll be presenting a major challenge that his view poses to pragmatism.

1. *Two claims.* I'll start with Yablo's fictionalist claim. As noted, in contrast to our pragmatist, Yablo thinks that, when speakers make mathematical claims, they are engaged in a practice that's more like a make-believe game, rather a one which makes literal claims about the world. In particular, Yablo sets out to establish the following:

> [That] there is another possible rational for fictionalism. Just maybe, it gives the most plausible account of the practice. It's not that [numbers] are intolerable, but that when we examine [mathematical]-language in a calm and unprejudiced way, it turns out to have a whole lot in common with language that is fictional on its face. (2001: 87)

By focusing on *interpreting* or *examining* mathematical language in a way that construes it as fiction, Yablo counts as a '*hermeneutic* fictionalist'.[1] This is in contrast to 'revolutionary fictionalists' (Field, 1980) who instead take themselves to be making a *proposal*: while there are no numbers and our ordinary, literal, mathematical claims are false, we may, nevertheless, *choose* to pretend that there are numbers, and so go on making mathematical claims despite our former errors. Thus where the revolutionarily minded propose fictionalism as a solution to the errors of our ordinary mathematical practice, the hermeneutic fictionalist claims that, even if there are no numbers, ordinary speakers are *not* in error, for they never took themselves to be literally committed to the existence of numbers in the first place.

In any case, rather than interpreting our mathematical practice in a way that vindicates the existence of numbers, Yablo wants, at a minimum, to argue for the following claim:

(Fic) The best interpretation of a speaker's actual mathematical assertions takes them to *not* be literally making true claims involving reference to or quantification over numbers.

Thus, for Yablo, when ordinary speakers make claims like 'The number of kangaroos is two' or 'There are prime numbers' they won't be interpreted as literally attempting to refer to and quantify over numbers, instead they'll be construed as merely *pretending* to do so. For this reason, in contrast to our pragmatist, Yablo thinks there's a good chance

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[1]The terminology is due to Stanley (2001).

there are no numbers, for the best interpretation of ordinary speakers takes them to have never been committed to numbers in the first place.

That's the first claim. The second claim is one that coincides with mathematical pragmatism as I've outlined it. For, like the pragmatist, Yablo thinks there's an important *practical* reason why we engage in numerical discourse: in his words, to 'express the infinitely many facts' that scientists and others want to express 'in a finite compass, we bring in numbers as *representational aids*' (2005: 92, *my emphasis*). Thus Yablo also wants to endorse the following claim:

(Fun): The use of numerical terms function as representational aids, enabling us to communicate counting facts that would be much more difficult to express without the use of numerical terms. For example, being able to communicate certain infinite disjunctions of counting facts in a finite fashion.

Of course, (Fun) is just the (F-N) clause of the pragmatist's EMU for mathematical singular terms. Thus Yablo has at least this much in common with our pragmatist.

However, according to Yablo, (Fic) and (Fun) are actually two sides of the same coin. In his words:

> [N]umbers as they figure in applied mathematics ... are part of a realm we play along with because the pretence affords a desirable — sometimes irreplaceable — mode of access to certain real-world conditions, viz. the conditions that make a pretence like that appropriate in the relevant game. (2005: 98)

The idea here is that the *reason why* speakers merely pretend that there are numbers consists in the fact that doing so allows them as certain practical advantage. In particular, it allows them a 'mode of access to certain real-world conditions' in the form of allowing them to communicate facts about how many, say, wallabies and kangaroos, there are, in a way that would be much more difficult without *pretending* that there are numbers. Thus, according to Yablo, it is *because* (Fun) is true that we have reasons for endorsing (Fic).

2. *The argument that (Fun) engenders (Fic).* Why should we think that endorsing (Fun) gives us reasons for endorsing (Fic)? Yablo's main argument relies on an *analogy* between the practical role of mathematical assertions and the practical role of assertions, like those

of metaphor and make-believe, which are overtly fictional. As Yablo acknowledges, making the analogy requires 'bringing in some ideas of Kendal Walton's about 'making as if'' (2005: 96). In particular, the argument relies on the idea that mathematical assertions behave analogously to, what Walton calls, 'prop-oriented make-believe'.[2]

To make things concrete, I'll start by describing an example of a make-believe game called 'Eschaton', taken from David Foster Wallace's novel *Infinite Jest* (1996). In the game, a tennis court is covered in random items like pants and players are meant to try and lob tennis balls at these items. The game operates according to two 'principles of generation', which take the following form:

(P1) x is a pair of pants iff (*in the fiction*) x is a submarine.

(P2) x is a tennis ball iff (*in the fiction*) x is missile.

The principles of generation allow the real world to function as 'props' in allowing us to make certain make-believe claims. In particular, (P1) and (P2) allow the players of the game to make it to be pretended that we hit a submarine with a missile whenever a tennis ball hits a pair of pants. The point of the game is to hit as many pairs of pants as you can with tennis balls and so 'destroy the arsenal' of the opposing side.

What's interesting, from Yablo's point of view, about make-believe games like these concerns the connection between the real world props and the content of the make-believe claims. What ordinarily happens in these make-believe games is that 'we take an interest in the props because and to the extent that they influence the content' (2005: 97) of the make-believe game. For example, if I have no tennis balls left, then this will enable me to pretend that I have no missiles left in my arsenal. However, according to Yablo, we can sometimes use claims made in the make-believe game to communicate facts about the props themselves. As he says:

> *But in principle it could be the other way around*: we could be interested in a game's content because and to the extent that it yielded information about the props. This would not stop us from playing the game, necessarily, but it would tend to confer a different significance on our moves. Pretending within a game to assert that BLAH would be a way of giving voice to a fact holding

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[2]See Walton (1990).

> *outside* the game: the fact that the props are in such and such conditions, viz.,
> the condition that makes BLAH a proper thing to assert. (2005: 97)

If we play the game in this spirit, we are engaging in 'prop-oriented' make-believe, in the sense that our make-believe assertions are now *oriented towards the props*.

Here's how this works. Suppose we are both playing Eschaton and understand (P1) and (P2). Then I can say 'My submarine has been hit' and thereby communicate to you that a pair of pants has been hit. For all you'd need to do is infer the relevant instance from the right- to the left-hand-side of (P1). Likewise, if I say 'I'm out of missiles', I can communicate to you the fact that I'm out of tennis balls by inferring from the right- to the left-hand-side of (P2). Thus, according to Yablo, by using prop-oriented make-believe, claims made within a make-believe game can sometimes play the role in allowing us to communicate facts about the real world.

As Yablo notes, this kind of prop-oriented make-believe becomes even more useful for us in the case of metaphors. For, by using a metaphor, we can often *expand our expressive capacities*, in the sense of being able to communicate facts about the real world which we would otherwise have a hard time communicating. For example, suppose I say 'I've got butterflies in my stomach'. This can allow me to communicate facts about whatever psycho-physical state I happen to be in when my love interest walks across the room, even though I can't really tell you what those psycho-physical facts are. In effect, knowing how to use the metaphor consists in knowing that it is constrained by the following principle of generation:

(P3) x is in such-and-such psycho-physical state iff (*in the fiction*) x has butterflies in their stomach.

And, according to Yablo, relying on that principle of generation and pretending that there are stomach-butterflies allows speakers to indicate facts about certain psycho-physical states that it would otherwise be difficult for them to communicate. All they need to do is reason from the right- to left-hand-side of the principle of generation. The same seems to be true of claims like 'We're honey mooning on the heel Italian boot' or 'The water looks angry tonight!' In each case, we pretend that Italy has a boot or that water can be angry to more easily communicate facts about the real geography of Italy or the impact of the storm on the ocean.

With this in place, we can now understand the analogy Yablo makes between mathematics and overtly fictional discourse. What we've seen is that fictional assertions like those of metaphors or make-believe are sometimes made to more easily indicate facts about the real world by being instances of prop-oriented make-believe. Given this, Yablo suggests that because (Fun) tells us that numerical terms are employed to play a very similar role, we now have grounds for thinking that (Fic) is true. As Yablo claims:

> Much as we make as if, e.g., people have associated with them stories of something called 'luck', so as to be able to describe some of them metaphorically as individuals whose luck is 'running out', we make as if pluralities have associated with them things called 'numbers', so as to be able to express an (otherwise hard to express because) infinitely disjunctive fact about relative cardinalities like so: The number of Fs is divisible by the number of Gs. (2005: 98)

Thus, because the practical role of numerical terms consists in their ability to more effectively communicate, for example, infinitely disjunctive facts about how many kangaroos and wallabies there are — facts like (1) above — Yablo claims that their role is *analogous* to overtly fictional uses of terms. For this reason, Yablo claims that since mathematics plays the role of (Fun), we have reason to endorse (Fic).

To finish off this idea, Yablo needs to provide an account of the sorts of principles of generation — like (P1) - (P3) — that mathematical terms might conform to. For this doesn't seem to be as clear cut as our previous cases. What exactly is the principle which takes us from certain 'props' in the world to a claim in which we pretend that there are numbers? To this, Yablo provides the following suggestion:

> The governing fiction of applied arithmetic says that whenever there are some E's, there is an entity the number of which measures them cardinality-wise, if there are five E's, this further entity is 5. (2001: 77)

In other words, according to Yablo, if (Fun) entails (Fic), then this gives us grounds for thinking that the rule of use constraining numerical terms is not (N), as the pragmatist would have it, but rather something like:

PRETEND: There are n xs iff (*in the fiction*) the number of xs is n.

This principle, according to Yablo, can then explain why our use of numerical terms in (2) above — that the number of kangaroos is greater than the number of wallabies — isn't an instance in which we are literally referring to numbers. Instead, it's merely an instance in which we *pretend* to refer to numbers in order to more easily communicate real world facts like (1) about how many kangaroos and wallabies there are. And this, according to Yablo, is analogous to the role played by rules like (P1) - (P3). In each case we have a rule in place allowing us to pretend that some claim is true in order to more effectively communicate facts about the world. In this way, Yablo sees (Fun) and (Fic) as two sides of the same coin.

Allow me to finish this section by describing the consequences of Yablo's position on our pragmatist's easy arguments for the existence of numbers. Recall that, in order to make the easy argument, our pragmatist relies our use of numerical terms conforming to (N). For that is what allows her to move from the uncontroversial premise (1p) — that there are two kangaroos — to the literal claim (2p) — that the number of kangaroos is two. And it is only because (2p) is taken to consist in a literally true application of numerical singular terms that we are allowed to conclude that the number two exists.

But if our use of numerical terms conforms to Pretend, instead of (N), all we are able to provide is the following 'easy argument'.

The pretend easy argument

(1p*) There are two kangaroos.

(2p*) (*In the fiction*) the number of kangaroos is two.

(3c*) (*In the fiction*) there is a number — namely, the number two.

This 'easy argument' doesn't conclude that there literally are numbers. It merely concludes that we pretend that there are. Therefore, in contrast to mathematical pragmatism, Yablo thinks that theorising about how mathematical terms are actually used doesn't prevent us from denying the existence of numbers. Instead, as Yablo suggests, it give us grounds for thinking that they don't, for speakers never intended to use these terms literally in the first place.

5.4   Against (Fic)

To defend ontological pragmatism from this challenge, I'll go on the offensive. As it turns out, while there might be an analogy between (Fun) and the utility of fictional assertions, there are many more disanalogies to be had between fictional uses of language and mathematical language. In this section I bring these disanalogies together and provide some reasons for thinking that they cannot be overcome. Thus despite Yablo's analogy, his fictionist interpretation of mathematics is more problematic than the pragmatist's literal interpretation insofar as these views attempt to portray an accurate account of our actual mathematical practice.

Before moving on, let me be clear that I am only attacking (Fic). I don't want to put any doubts on (Fun). All I claim is that the many disanalogies give us reason to reject (Fic) even if (Fun) is the proper account of the function of numerical terms.

5.4.1   The phenomenological disanalogy

Here's the first disanalogy. Consider your belief that 2+2 = 4 or that the number of planets is eight. Those who make mathematical claims certainly don't *feel* like they are engaged in any kind of fiction. The way if feels to when you assert that the number of planets is eight is very different from the way if feels when you assert that there are butterflies in your stomach or that the 'missile' hit your friend's 'submarine'. Call this the '*phenomenological* disanalgy'.

Yablo is aware of this objection. To avoid it he distinguishes between 'pure' and 'simulated' ways of pretending that you believe something. For example, he suggests that, while 'pure' pretence consists 'in an amalgam of (i) being as if you believe, and (ii) being that way through your deliberate efforts' (Yablo, 2001: 90), in mathematics we merely *simulate* belief, which consists in (i) being the case without (ii) being the case. The thought is that (i) alone is enough to secure (Fic) in the sense that we are still not committed to the literal truth of claims purporting to pick out numbers. The phenomenological objection is then explained away by the fact that mathematical discourse does not fulfil (ii). Thus the difference in *feeling* is supposed to be explained by the fact that, unlike many overtly fictional uses of words, we don't take our assertions involving them to be the result of our deliberate efforts.

However, this misses the real point of the phenomenological objection. Yablo's notion of simulation relies on the idea that we are *as if we believe* that there is a prime number between eight and twelve without that being the case because of our own efforts. Therefore, when we inquire into whether or not we *really* believe that there is a prime number between eight and twelve, simulated pretence predicts that we feel like we don't really believe it. We only feel *as if* we believe it. However, pre-theoretically, we simply do not feel *as if* we believe that there is a prime number between eight and twelve. Such a belief feels just as genuine as our belief that there are electrons or that I either have a cat or I don't have a cat. Whether or not this is due to our own efforts is irrelevant; we simply don't have the phenomenology that goes along with simulated belief either.

Yablo might protest that this isn't the case for people who really think about the issues. If lay people were to wonder 'Do I really believe that there is a a prime number between eight and twelve?' they may start to wonder about what it would be for there to be numbers and how we could come to know about them. This might be true, but notice the same could go for *any* of our beliefs. Consider a lay person who really starts thinking about whether or not there is a television screen in front of him. Perhaps he overheard someone talk of van Inwagen's (1990) claim that there aren't any inorganic composite objects; there are really only simple particles arranged television-wise. And why not extend this to all composite objects, people and animals as well (Rosen and Dorr, 2002)? Perhaps speakers only simulate belief in an external world because, when they really think about it, they think that they could be a brain in a vat. Thus, if this is Yablo's best way out, the response problematically overgeneralises to cases he doesn't want to be a fictionalist about.

5.4.2   The linguistic disanalogy

Consider a second disanalogy highlighted by Thomasson (2013; 2015: 177 - 205). Notice that pretend games like Easchaton involve stipulations like (P1) and (P2) in order to get the pretence off the ground. These stipulations involve a systematic *misapplication* of our terms. In normal circumstances, the terms 'missile' and 'submarine' have conditions of application that are not properly used to apply to tennis balls and pairs of pants. Same goes for terms like 'butterfly' and 'boot' in assertions like 'There are butterflies in my stomach' and 'We're on the Italian boot'.

But it is completely unclear what kind of systematic misapplication is going on when

we use number terms. In fact, it looks like the move from 'There are two bagels' to 'The number of bagels is two' sounds (almost) redundant and would therefore count as a trivially *correct* application of numerical terms. In other words, inferences like those in (I-N) look much more analogous to the inference from 'There is an explosive projectile in front of me' to 'There is a missile in front of me', than the inference from 'There is a tennis ball front of me' to 'There is a missile in front of me'. The upshot is that, at the very least, Yablo incurs the burden of telling us what the correct application of numerical terms is if not something like the application conditions that the pragmatist takes to constitute the meanings of numerical terms. Call this the *linguistic disanalogy*.

Yablo anticipates this disanalogy with two responses. The first response concedes that the inferential moves in (I-N) *are* correct uses of numerical terms: 'The literal meaning of 'twelve' is: number that provides a measure, cardinality-wise, of the BLAHS just in case there are twelve BLAHS' (Yablo, 2000: 169). Instead, Yablo suggests that 'they are using the definite article 'the', or rather the existential quantifier it implicitly contains, non-literally (2000: 170).' Therefore, according to Yablo, it's an implicit existential quantifier that is being misapplied, rather than the numerical terms themselves.

The first problem with this response is that Yablo hasn't said anything about what it would be to misapply the existential quantifier in mathematical contexts and what it is to apply it correctly in other contexts. Suggesting that a misapplication of the existential quantifier would be one in which we say that there are numbers and a correct application would be one in which we say that there are any other kinds of objects, would beg the question. Therefore, he merely pushes the challenge of the linguistic disanalogy back into an equivalent challenge of having to specify the correct and incorrect application conditions of the existential quantifier and why it is misapplied the numerical case.

Moreover, since Yablo is conceding that numerical terms generally *do* have correct applications, he must think that

(3) Nine is a prime number

is a correct use of our number terms. But predicating a property of an object is sufficient to go on to correctly introduce a quantifier: $\exists x\ (x$ is a prime number), on anyone's account. That's just an application of existential-introduction. How could speakers be misapplying the existential quantifier if they are simply adhering to its core inferential use in logic?

Yablo's second response claims that no terms are being misapplied, but that this doesn't make it disanalogous to fiction. The reason is that there are instances of terms which only have a meaning *inside* a fiction. Yablo illustrates the idea this way:

> It is true that if I am to use a sentence S metaphorically, there had better be conditions under which S is pretence-worthy, or sayable, and conditions under which it is not. But as we know from the example of fiction, this does not require S to possess a literal meaning, as opposed to fictionally possessing one in the story or game. Flann O'Brien in *The Third Policeman* tells of a substance called 'gavid liquid', the tiniest drop of which weighs many tons, and whose subtle dissemination through the parts of material objects is all that prevents them from floating away. When I pretend ... I am guided by what 'gavid' is *supposed in the game* to mean. I have no concern what it means in English, and for all I know it is not even an English word. (2000: 170)

But this response doesn't work either. For there *is* a sense in which I would know how to correctly apply 'gavid liquid' outside the fiction: suppose scientists discover some liquid that weighs many tons and without which material objects would float away. If that happened, it would be correct to apply 'gavid liquid' if we were in the presence of a liquid with that theoretical role.

The point is that it is *prima facie* a feature of claims that are made in pretence that we can have some point of contrast in which we *could* say what it would take to correctly apply the relevant terms outside the fiction. Yablo hasn't been able to show that mathematical claims have this property, so the disanalogy still holds.

5.4.3   The empirical disanalogy

Finally, Stanley (2001) offers an empirical disanalogy between mathematics and fiction: it turns out that children with autism find it difficult to understand pretend games and also find it difficult to cope with metaphor and other kinds of figurative speech. So if there is something like the same psychological capacity involved in making mathematical assertions as there is in various uses of fictional language, then we would expect people with autism to find mathematics just as difficult. But they don't. So there is an *empirical*

disanalogy between mathematics and fiction.[3]

The likely reply from Yablo here would be that people with autism understand mathematics in a special way: they take mathematics to be literally true, but they are the exception to the rule. People without autism make mathematical assertions in a figurative spirit. Think of it this way. If we had evidence that mathematics was false, then most people would not have much of a reaction. But autistic children would be very surprised and no longer be able to engage in mathematics.

But this response looks *ad hoc*. We have no empirical evidence to suggest that autistic people are the exception to the rule. The only evidence Yablo would seem to have for this claim is the idea that *non-autistic* people merely simulate belief, and I have already rejected this idea. Thus the counterargument wouldn't be independently motivated and would rely on the very assumption that Yablo is trying to prove: that ordinary speakers don't literally believe in numbers.

5.4.4   Disentangling (Fun) and (Fic)

Individually, these disanalogies might not outweigh the purported similarities between the expressive role of mathematics and make-believe. However, taken together, I think there is strong pressure to deny (Fic) and claim instead that the best interpretation of ordinary mathematical claims is one in which they are taken literally. And this gives us reasons for thinking that pragmatism does a better job than fictionalism in interpreting our mathematical practice.

In fact, we shouldn't have ever thought that (Fun) gave us a reason to endorse (Fic) in the first place. For it is plausible that many of our linguistic expressions are introduced into our language because they increase our expressive and communicative abilities. Yet we do not typically think that this means that our use of these expressions must be fictional.

Consider minimalist or deflationary theories of truth. According to most minimalist accounts, our reasons for introducing 'true' into a language, in such a way that speakers are entitled to infer from 'It is true that p' to 'p', and vice versa, is that these uses increase our expressive resources. For example, having 'true' in a language can allow me to *endorse* an infinite disjunction of claims:

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[3]See Liggins (2010) for another discussion.

(4) Either snow is white or snow is not white or grass is green or grass is not green or Trump is tweeting or Trump is not tweeting or the Sears Tower is tall or the Sears Tower is not tall...

by claiming that:

(5) All propositions of the form 'p or not p' are true.

Thus the practical point of 'true', in the minimalist's case, looks very similar to the practical role of (Fun) in the mathematical case. But this doesn't seem to give us a reason for thinking that when I assert (5) I'm merely pretending that the law of excluded middle is true. I really do think the law of excluded middle is true! Of course, by making this claim the minimalist is denying that we introduce 'true' into a language to refer to some property the substantive nature of which we can investigate. But why assume that the best explanation of why we use terms in the way we do must be because they help us to refer to or make true claims about the world? Such an assumption would, in any case, be anathema to pragmatists.

Therefore, the fact that using a term in a certain way affords us a practical communicative advantage doesn't obviously entail that such uses must be merely figurative. Therefore, there are good reasons for thinking that there is enough conceptual space to disentangle claims like (Fun) and (Fic). But once these claims are disentangled and we've established that there are many reasons to reject (Fic), pragmatism becomes the more plausible interpretation of our use of mathematical language.

5.5 Metaphysical therapy

However, there are two puzzle cases which don't rely on the analogy between (Fun) and fictional language which Yablo takes to support (Fic). Here I want to respond to these cases, by arguing for two claims: (a) that the pragmatist can equally well make sense of these puzzle cases and (b) that Yablo's own solution to these cases shows that hermeneutic fictionalism rests on an unjustified *metaphysical* conception of what it would take for speakers to be committed to the existence of numbers.

5.5.1   A misguided oracle

The first case Yablo considers goes like this. Imagine discovering the 'Oracle of Philosophy' who can give you the answers to any ontological question a philosopher might want to pose.[4] You ask him if there exist any abstract objects and he tells you that everything is concrete. There are no abstract objects; the nominalists have won over the Platonists.

Now imagine going into your favourite mathematics department where they are proving conjectures about primes and non-denumerable infinities. Yablo then imagines the following scenario:

> [That] you demand that the practice be stopped at once. It's true that the Oracle has been known to speak in riddles; but there is now a well-enough justified *worry* about the existence of [numbers] that all theoretical reliance on them should cease. They of course tell you to bug off and amscray. Which come to think of it is exactly what you yourself would do, if the situation were reversed. (2000: 279)

Yablo's idea is that ordinary speakers wouldn't retract their claim were someone to tell them that the debate between nominalists and Platonists had been solved in the nominalist's favour. They would continue to go on making mathematical claims despite being told that there really aren't any numbers. If this is true, then it looks like, in ordinary contexts, we don't care whether or not numbers exist. So, we shouldn't be *interpreted* in a way that commits us to the existence of mathematical entities. This puts pressure on us to interpret ordinary speakers as not being literally committed to the existence of numbers. If they were making sincere assertions, then they *would* care about what the oracle has to say.

For clarity, here is a more schematic version of Yablo's argument.

(O1) Taken literally, mathematical discourse commits us to the existence of mathematical entities.

(O2) People normally using mathematical discourse don't take themselves to be committed to the existence of mathematical entities.

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[4]The parable of the oracle comes from Burgess and Rosen (1997: 3).

(Oc) Therefore, people using mathematical discourse shouldn't be taken literally.

Here (O1) should be taken as an obvious truth about mathematical discourse, where we make claims like 'There are infintely many primes' and 'The number of kangaroos is two'. The bulk of the argument is a justification of (O2) which proceeds via the previous thought experiment.

Here's the pragmatist's reply. We can read being 'committed to the existence of mathematical entities' in (O1) and (O2) in two different senses. First, there is the *deflationary* sense in which we trivially conclude from uncontroversial premises that numbers exist. Since the pragmatist is committed to the existence of numbers through these kinds of easy arguments, she'll want to claim that ordinary speakers are committed to the existence of numbers in this sense. After all, as I argued at the beginning of this chapter, if the pragmatist's explanation of the meanings of numerical terms and her account of referential success in terms of application conditions provides an accurate description of our ordinary mathematical practice, then there is *no space* from which we can seriously think that there may be no numbers. For if there are no numbers, then it will be conceptually true that the number of numbers is zero.[5] But given the pragmatist's understanding of referential success, we've now referred to a number — the number zero. So there's no space to seriously wonder whether or not there are numbers, by the lights of the pragmatist.

On the other hand, we could read 'committed to the existence of mathematical entities' in a *metaphysical* sense. On this reading, being committed to the existence of numbers requires a mainstream ontological argument, or something of that kind. Therefore, on this reading, speakers will take themselves to be committed to the existence of numbers just in case they think that numbers are a necessary part of any best total theory of the world. Here, whether or not numbers *really* exist is an open question.

With this distinction in play, we can argue that the parable of the oracle only justifies (O2) on a metaphysical, rather than a deflationary reading. To keep the distinction in mind, let's mark the metaphysical conception of 'commitment' with small-caps. For example, the pragmatist will have no problem maintaining that

(O2*) People normally using mathematical discourse do not take themselves to be COM-MITTED to the existence of numbers.

[5]Note that I am not claiming that ordinary speakers would be able to explicitly state or rehearse this argument.

For ordinary speakers will likely have no idea what it would be to be COMMITTED to the existence of numbers. Of course, this doesn't mean that ordinary speakers *deny* being COMMITTED to the existence of numbers. The claim is merely that ordinary speakers don't take a stance on whether or not they are so COMMITTED. For ordinary speakers likely have no idea what it would be to be COMMITTED to the existence of numbers in this metaphysical sense.

This is consistent with pragmatism. For pragmatists themselves are not able to make sense of being COMMITTED to the existence of numbers. So the pragmatist can say that ordinary speakers will rightly ignore the Oracle. And note, the fact that Yablo simply assumes that we can make sense of the Oracle shows that he presupposes a metaphysical picture of ontological commitment. And, of course, the pragmatist rejects this picture. Does the parable of the oracle support (O2) on the deflationary reading? It's not clear that it does. On that reading all it takes to be ontologically committed to numbers is to decide to use mathematical discourse according to rules specified by (I-N). Given that ordinary speakers would know how to use mathematical terms in accordance with these rules, along with the fact that they can still go about counting various objects, they will still make trivial inferences to the effect that they end up saying 'There are two even numbers'. This is even borne out by Yablo's thought experiment, for the experiment assumes that speakers would still go on using mathematical terms in the usual way and end up saying things like 'There are numbers' — despite the oracle's protestations. In this way, the parable of the oracle does not support (O2) based on a deflationary reading of ontologial commitment, but very well may support (O2) on a metaphysical reading.

The upshot is that the only justification we have for thinking that the parable of the oracle supports hermeneutic fictionalism is if we are already assuming that the metaphysical notion of ontological commitment is the only one in play. But, the pragmatist will insist, we never needed *that* kind of ontological commitment in the first place. In this way, the motivation for fictionalism in this area rests on a view of ontological commitment we needn't accept.

5.5.2   Defusing a paradox

A second puzzle that Yablo uses to motivate hermeneutic fictionalism trades on what he calls a 'paradox of existence'. The paradox is the following. Yablo is aware of the fact

that we can make trivial inferences to the existence of numbers with easy arguments like that from (1p) - (3c) above. These arguments don't seem to turn on anything other than certain uncontroversial truths plus rules of use for our numerical terms. As such these arguments are largely independent of empirical evidence concerning the state of the world and aren't complex or 'substantive' arguments for the existence of numbers. On the other hand, philosophers tend to want something more than these trivial considerations to determine whether or not numbers exist. A case in point might be the Quine-Putnam indispensability argument, which suggests we should be committed to the existence of numbers given their indispensability to the physical sciences.[6] So, the paradox is this:

> The existence of abstract objects strikes most of us as an enduringly controversial matter decidable (if at all) only by a complexly holistic a poseriori argument. At the same time, the existence of abstract objects is straightforwardly deducible from premises that few would think to deny, using simple bridge principles widely accepted on the basis of non-empirical evidence. (Yablo, 2000, p. 276)

Therefore, on the one hand, the existence of numbers is highly controversial; but, on the other hand, extremely trivial. This looks paradoxical. It can't be both.

According to Yablo, hermeneutic fictionalism proposes a nice solution to the paradox. The trivial arguments are valid *inside the mathematical fiction*. I'm allowed, given the rules of the mathematical fiction, to move from 'There are three cups'; to, the now fictionalised claim that 'The number of cups is three'; allowing me to, fictionally, conclude that 'There is a number: the number three'. However, despite these trivial inferences, we can still, according to Yablo, preserve the idea that the existence of abstract objects is highly non-trivial and controversial. Nominalists and Platonists still have every right to engage in theoretical speculation of the Quine-Putnam variety concerning whether or not numbers exist, for the trivial arguments don't in fact provide that conclusion.

Notice, however, that in order to solve this puzzle, like the previous one, Yablo distinguishes two readings of ontological commitment: commitment inside and outside a fiction. But, as I argued in the previous section, we needn't carve things up this way.

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[6]See Quine (1948) and Putnam (1970). However, note that there are 'non-metaphysical' ways to read this argument. See Burgess (2002) and Price (2007; 2009).

Again, we can instead suggest that the relevant distinction should be between deflationary and metaphysical readings of ontological commitment. On the one hand, there are the trivial considerations which allow us to commit ourselves to the existence of numbers once we have pragmatically decided to go in for mathematical discourse; on the other hand, metaphysicians require highly controversial arguments which may or may not support the existence of numbers, independent of our ordinary and trivial means of doing so.

Notice that what is paradoxical about the puzzle is that it seems we both should and shouldn't be endlessly debating the existence of numbers, in virtue of the fact that their existence seems both trivially true and highly controversial. Yablo's solution denies that the existence of numbers is trivially true and saves the idea that their existence is highly controverisal. But notice that *we could solve the paradox the other way around*, claiming instead that the existence of numbers is trivially true and denying that we need to think of their existence as enduringly controversial. This is precisely the remedy the pragmatist provides. Once we have settled the practical matter about whether or not we should deploy mathematical discourse, our mathematical commitments are literally and trivially true. Furthermore, given that the pragmatist denies that anything beyond an easy argument for the existence of numbers constitutes a legitimate theoretical standpoint, she'll deny that the existence of numbers is non-trivial or controversial. So the pragmatist can solve the paradox as well by denying that the existence of numbers is controversial and endorsing the idea that their existence can be established trivially.

Why would Yablo conclude that only the first solution is viable? My suggestion, again, is that he neglects the crucial distinction between the pragmatist's deflationary account of ontological commitment and the metaphysical account. Furthermore, it is telling that he comes down on the side which vindicates traditional metaphysics and claims that the trivial arguments must take place in a game of make-believe. For this suggests that Yablo simply assumes that the only way we could literally be committed to the existence of numbers is by engaging in controversial metaphysical arguments. So, once again, Yablo's solution presupposes that the metaphysical picture of ontological commitment is the only game worth playing.

5.6   The indispensability of mathematics

Allow me to finish this chapter by looking more closely at how the pragmatist should think about the Quine-Putnam indispensability argument. The first thing I want to do is show that, by taking on (Fun), the pragmatist is entitled to the same satisfying explanation that the fictionalist is entitled to regarding why it is that we find mathematics to be indispensable to science. This I take to be a point in favour of both pragmatism and fictionalism. However, it may also be argued that there is reason to claim that any explanation of this kind is no longer entitled to the claim that numbers exist. For, in employing (Fun), we are only able to get as far as the claim that mathematics is indispensable *for us*. And this, it may be argued, undercuts our commitment to the existence of mathematical entities. Therefore, the second claim I want to make is that the pragmatist needn't worry about this counterargument. For, just like the puzzle cases above, the motivation to endorse it relies on the presumption that the existence of numbers can only be established by a sufficiently metaphysical argument.

To start, what exactly is the Quine-Putnam indispensability argument? At a minimum, it's this:

The Quine-Putnam indispensability argument

> (1p) We ought to be committed to the existence of all and only the entities that are indispensable to our best scientific theories.

> (2p) Mathematical entities are indispensable to our best scientific theories.

> (3c) Therefore, we ought to be committed to the existence of mathematical entities.[7]

The argument is probably the most celebrated argument *for* Platonism about mathematics, as well as the central *challenge* to those who *deny* the existence of numbers. What should the pragmatist say about this argument?

The first claim to make is that the mathematical pragmatist won't take the Quine-Putnam indispensability argument as *evidence* for the existence of numbers. If thought of as an argument for the existence of numbers, the Quine-Putnam indispensability argument

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[7]See Colyvan (2003).

is an instance of, what I've been calling, 'mainstream ontology'. As highlighted at the beginning of this chapter, the pragmatist will simply *not want to engage* in these kinds of metaphysical debates. So the pragmatist should not take the argument to be a reason to endorse Platonism. Instead, according to mathematical pragmatism, the existence of numbers follows trivially by an easy argument, provided we have adopted a practice of using numerical terms in the way specified by the EMU.

Nevertheless, I think the pragmatist has much more to say about the indispensability of mathematics, than simply walking away from these issues altogether. The first consideration here consists in the fact that mathematical pragmatism looks like it may be able to *explain why the use of numerical terms, in a way that admits of quantificational contexts, is indispensable to the formulation of scientific theories.* For example, it is open to the pragmatist to claim that the expressive function of numerical vocabulary — as indicated by (Fun) — may play a certain kind of *indispensable role* in the formulation of scientific theories.

This point has been emphasised by Yablo and others.[8] To illustrate, Yablo (2005: 94) asks us to suppose that a physicist is studying escape velocity. Our physicist will know many kinds of facts about escape velocity, one of which is the following:

> (6) If a projectile is fired at such-and-such meters per second from the surface of a planetary sphere which is such-and-such kilograms in mass and such-and-such meters in diameter, then it either will (will not) escape its gravitational field.

Suppose our physicist wants to record facts like (6) without speaking in such a way that she ends up referring to and quantifying over numbers. Our physicist will immediately run into expressive problems. For one, because velocities range along a continuum, she will have to be able to write uncountably many sentences employing uncountably many numerical expressions in the determiner position. In addition, all the reals here are 'random' in the sense that they need to encode an irreducibly infinite amount of information. Being a finite, limited being, it's simply not possible for our scientist to be able to record all this information without adopting a language which allows for the use of numerical terms in referential and quantificational contexts.

However, our physicist *can* capture all this information by adopting such a language. For example, if she does, she can simply write down the following:

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[8]See Melia (1995), for example.

(7) For all the positive real numbers m and r, the escape velocity from a sphere of mass m and diameter $2r$ is the square root of $2gm/r$, where g is the gravitational constant.

Here, according to Yablo, our reason for using a language in which numerals can be employed as singular terms and thereby figure in quantificational contexts consists in the ability of such a language to communicate counting facts about physical objects that we could not otherwise express. In effect, Yablo's physicist is choosing to employ mathematical vocabulary for precisely the reason stipulated by (Fun) — as representational aids. And notice, what's particularly interesting about the use of numerical terms as representational aids in these cases, is that our need to use such a language in science is explained in terms of it being *practically impossible* for us to do without mathematical language when formulating our scientific theories. In this way, it may be that any scientific theory written out or communicated by finite beings will find the deployment of overtly mathematical language indispensable, in the sense that no theory without mathematics would be able to capture all of the physical facts that we want to express. In this way, by endorsing (Fun) both the pragmatist and the fictionalist can provide an *explanation* of why mathematics is indispensable to science. This is a nice feature of both views.

But what does this imply with respect to the Quine-Putnam indispensability argument? One thought is that, if mathematics is indispensable to science *only because of our necessarily limited expressive capacities*, then this amounts to an argument *against* the existence of mathematical entities. This point is made vivid by David Manley (2009b).[9]

To start, he asks us to imagine an exchange between us and the scientific gods. Since we are finite creatures, we cannot write out or otherwise express the uncountably many sentences required to capture all of the physical facts that we, as scientists, desire. However, the gods, being infinite in nature, *can* express such facts without the use of mathematical vocabulary. In Manley's words:

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[9]It is made, in a different way, by Yablo (1998): that because mathematics is indispensable, but fictional, the indispensability of mathematics gives us no reason to accept the existence of mathematical entities. For we shouldn't be committed to the existence of entities we only pretend to believe in. In effect, Yablo's argument is actually against the Quinean approach to ontology. As such, it doesn't count as an argument against the mathematical pragmatist. I've employed Manley's argument here instead because it uses Yablo's line of reasoning about (Fun) to provide a more general argument against accepting the existence of numbers. And this, it would seem, has the potential to threaten the pragmatist's commitment to realism.

> We may suppose the only difference between [us and the gods] is one of vocabulary and expressive power; and we may give them both very Quinean intuitions about ontological commitment. Surely the deity, when considering the human's indispensability argument, should be unimpressed. Meanwhile, it seems the human can grasp the truth-conditions of the deity's huge disjunctive sentence, by understanding its structure. So the human is in a position to know that the disjunction is an adequate paraphrase, even if he cannot utter it. Can he maintain that the indispensability argument still provides him with reason to believe in the existence of numbers? This seems tantamount to claiming that — merely by virtue of his deficiencies — he has some special insight into the nature of things that the deity does not have. (2009b: 396 - 397)

The argument is that, because mathematics is only indispensable to science in light of (Fun), it is only indispensable to our scientific theories in light of our expressive limitations. After all, given (Fun), the use of numerical terms merely allows us to communicate facts that *we* could not otherwise express. However, since the gods have natures which allow them to express these physical facts without the help of numerical terms, we know that mathematics is *dispensable*, but for our own expressive limitations. But being expressively limited is never a good reason to affirm the truth of a proposition. And, therefore, never a good reason to claim that there are numbers. For this reason, one might think that explaining the indispensability of mathematics along the lines of (Fun) provides an argument *against* the existence of numbers.

Of course, a fictionalist like Yablo, won't have to worry about this argument. For they were never committed to the existence of numbers anyway. Instead, all Manley's argument shows is an interesting fact about how claims made in pretence may be indispensable for us in the formulation of our scientific theories. By contrast, because the pragmatist *is* committed to the existence of numbers, she'll want to resist the conclusion. The question is: can she?

Indeed, the pragmatist can resist this conclusion for two reasons. First, note that the argument relies on the assumption that the existence of numbers must be argued for by figuring out whether or not numbers must be quantified over in a best theory. Of course, this best theory is no longer *our own* best scientific theory. It is a seemingly 'better' theory,

dispensing with numbers, whose truth-conditions we can grasp, but whose sentences we cannot utter. Nevertheless, the intuition is that there is a better theory our there which renders mathematics dispensable. And this is what's supposed to pull us in the direction of rejecting the existence of numbers. However, as stated before, the pragmatist rejects the idea that these considerations should count as evidence for or against the existence of numbers. Instead, the existence of numbers can and should be established by an easy argument.

Second, the argument also mistakes (Fun) as an explanation of why it is that sentences involving quantification over numbers should be regarded as *true*. But (Fun), by the lights of the pragmatist, is not such an explanation. Instead, it is an explanation of why it is that we have practical reasons to use numerical terms in certain ways. It therefore does not constitute an evidential reason for the truth of our mathematical claims. Instead, it constitutes a practical reason for us to use numerical terms in the first place.

To make these points more vivid, consider what exactly the difference is between us and the gods, by the lights of the mathematical pragmatist. First, *we* have good pragmatic reasons to adopt mathematical language in our best scientific theories. Once we adopt mathematical language, it will trivially follow that numbers exist. For, from any counting fact we might want to express in science — that the projectile was fired at 700 meters per second, for example — it will now trivially follow that the number of meters per second the projectile was fired at is 700, from which it follows that the number 700 exists. Thus, once we make a practical decision, in light of (Fun), to deploy mathematical vocabulary in science, it immediately follows that we can establish the *truth* of the claim that there are numbers merely by providing an *easy argument*.

The gods, by contrast, won't have good practical reasons to employ mathematical vocabulary in their best scientific theories. Thus, perhaps the gods will never use mathematical vocabulary at all. But if they don't use mathematical vocabulary, then it's not that, according to them, numbers don't exist. Instead, they simply won't be able to *say* anything about the numbers at all since, by hypothesis, they have decided not to use numerical terms. However, if the gods *do* decide to use numerical terms, then they will be entitled to the easy argument as well and therefore conclude that numbers exist. So, by the pragmatist's lights, (a) whether or not mathematical language is indispensable to the formulation of a scientific theory is neither here nor there with respect to the truth of

claims involving commitment to the existence of numbers. In fact, (b) the only way to establish the truth of the claim that numbers exist is to provide an easy argument, rather than any sufficiently metaphysical one.

Nevertheless, it's still the case that (Fun) can be employed to explain why it is that we — *qua* finite human beings — find that mathematics is indispensable to any usable scientific theory. And this is a nice result. After all, being able to explain why mathematics plays such an important role in our scientific lives is incumbent on *any* good account of our actual mathematical practices. But, in providing such an explanation, this does not in any way conflict with the pragmatist's commitment to deflationary realism.

5.7   Conclusions

To sum up, the key claims made in this chapter are the following.

> 1. The fact that our use of numerical terms can be explained by their usefulness as 'representational aids' does not, *contra* Yablo, give us reasons for thinking that ordinary speakers merely pretend that there are numbers. In fact, there are many reasons to think that the best interpretation of our use of mathematical discourse is realist, in the sense that ordinary speakers take themselves to be making literal assertions referring to and quantifying over mathematical entities. The fictionalist can't achieve this, but the pragmatist can.

> 2. Yablo's puzzle cases regarding the 'oracle of philosophy' and the 'paradox of existence' are only motivations for fictionalism if we accept that the existence of numbers needs to be established by a metaphysical argument. By rejecting this assumption, mathematical pragmatism is able to account for these puzzle cases at least as well as the fictionalist.

> 3. Finally, the mathematical pragmatist can account for the 'indispensability' of mathematics in the physical sciences in much the same way as the fictionalist. However, *contra* fictionalism, this account does not entail that we should reject the existence of mathematical entites. On the contrary, while mathematics might be merely *pragmatically* indispensable to science, this does not constitute an argument *against* their existence.

The first point amounts to the claim that pragmatism does a better job than fictionalism in accounting for our actual mathematical practice. In addition, the other two considerations show us that the motivations for fictionalism are also motivations for pragmatism. On the one hand, pragmatism is able to solve the puzzle cases just as well as the fictionalist. On the other hand, the pragmatist is able to provide an account of the seeming indispensability of mathematics just as well as the fictionalist. Therefore, on the whole, we have reasons to prefer pragmatism over fictionalism.

6

Quantifying without Carving

"The world does not speak. Only we do. The world can, once we have programmed ourselves with a language, cause us to hold beliefs. But it cannot propose a language for us to speak. Only other human beings can do that."

— Richard Rorty, Contingency, Irony, and Solidarity

6.1   Does the world speak?

In this chapter, I want to use ontological pragmatism to respond to a popular attempt to *revive* mainstream ontology in the face of deflationary alternatives. The strategy is most fully developed by Theodore Sider (2009; 2011) and hinges on the idea that the world has a distinguished structure. Sider's thought is that, while the meaning of 'exist' in ordinary linguistic practice may be fixed wholly by the way *we use words*, there is another meaning of 'exists' which *latches onto the world's intrinsic structure* and so 'carves at the joints'. Given this privileged meaning of the quantifier, Sider argues that, while sentences like 'There are tables' might be perfectly good things to say in ordinary contexts, such claims merely reflect our use of words and are therefore *unfit* for serious metaphysical inquiry, which concerns describing the world's structure. In order to figure out what *really* exists we must employ the meaning of the quantifier which carves the world at its joints. Doing

this, Sider claims, allows serious ontological inquiry to flourish once again.[1]

Why believe that 'exists' carves at the joints at all? Here, I'll primarily be concerned with responding to, what Sider calls, 'the best argument' for this view (2011: 188): that because quantifiers are *indispensable* to our best theories, there are strong reasons for thinking that quantifiers can latch onto the world's structure. Thus Sider offers an *indispensability argument* to the effect that quantifiers can carve at the joints. My goal will be to undercut this indispensability argument and so undercut the best argument we have for reviving mainstream ontology in this way.

Here's my strategy. First, I'll clarify Sider's claim that quantifiers can carve at the joints. I'll then describe his indispensability argument and the threat it poses to easy ontological positions like ontological pragmatism. To respond to Sider's indispensability argument, I'll consider two different strategies before arriving at my own. One strategy responds directly to Sider by claiming that quantifiers are *dispensable* to any theory of the world. A second strategy suggests that the pragmatist can simply walk away from Sider's argument given its explicitly metaphysical presuppositions. However, I'll argue that both these strategies are left wanting and suggest a third: that of explaining the indispensability of quantification *in terms of its practical indispensability for us*. In particular, I'll argue that the indispensability of quantification has nothing to do with carving the world at the joints, but everything to do with our practical need as theorisers to make *generalisations* in the absence of an ability to make particular claims about the objects we want to theorise about.[2] With this explanation on the table, I'll have defused Sider's best argument for his view, undercutting the motivation for thinking that quantifiers carve at the joints. I'll then finish by responding to three possible objections on behalf of Sider and argue that each places an unjustified metaphysical burden on the pragmatist.

6.2   Ontological realism

Sider calls his position 'ontological realism'. He defines it this way:

> Ontological realism is the claim that the world's distinguished structure includes quantificational structure. (2009: 407)

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[1]Others like Dorr (2005: 248 - 254) and Cameron (2010) have endorsed similar views.
[2]My argument here is a more detailed version of that in my (2014).

In this section, I'll describe what Sider means by this claim, as well as his corresponding claim that quantifiers carve at these quantificational joints. I'll start by introducing the idea that the world has a distinguished structure through Lewis' more familiar theory of natural properties and relations. I'll then describe the ways in which Sider both draws on Lewis and differs from him to explain the view that quantifiers carve at the joints.

6.2.1 Lewis on structure

The idea that the world has distinguished structure is most familiar from Lewis' (1983; 1984; 1986) thesis that it is the distribution of 'natural' properties and relations which gives the world its structure. For Lewis, a natural property is one which plays a variety of explanatory roles in metaphysics and science. For example, the natural properties are said to make for objective similarities in nature, to be those properties which figure in our simplest and strongest scientific laws, and all truths are said to supervene upon the distribution of natural properties and relations.[3] Thus it is the properties which best play these explanatory roles that are said to be the ones which give the world its objective joints.

For Lewis, properties can be *ranked* for how well they play these roles. For example, the property of being an electron is said to be *highly natural*: the fact that all the electrons go together constitutes an objective similarity, electrons figure in our simplest and strongest laws, and many truths supervene on the distribution of electrons. The property of being married is said to be *less natural*: married things are less objectively similar, they don't generally figure in our best scientific laws, and other truths are less likely to supervene on marriages. Finally, gerrymandered properties like that of being either an electron or a cow are said to be *highly unnatural*: they don't mark an objective similarity in nature, they don't figure in our best scientific laws, and other truths don't supervene on them. Thus the *more* natural a given property is, the *better* it will be at accounting for these different explanatory tasks.

On the linguistic side, for Lewis, the meaning of a *predicate* can also be ranked according to how well it accounts for these natural properties. For example, suppose one group of speakers, S_1, uses the predicate 'is an electron' to mean BEING AN ELECTRON, while another group of speakers, S_2, uses the predicate 'being an electron' to mean BEING AN ELECTRON OR A COW. Since S_1, but not S_2, picks out a highly natural property, S_1's

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[3]See Lewis (1983)

predicate expresses a highly natural meaning, while S_2's predicate doesn't. On this view, the speakers of S_1 get something right about the world's objective structure, while speakers of S_2 miss out. And this will be the case even though both may be speaking truly, given what their predicates mean. In this sense, the meaning of 'being an electron' in the mouths of S_1 speakers is said to better 'crave nature at the joints' than the meaning employed by speakers of S_2.

Finally, Lewis also claimed that the more natural a predicate meaning is, the more *eligible it is to be meant* by a linguistic community.[4] For example, suppose that the speakers of S_1 and S_2 both *use* the predicate 'is an electron' in exactly the same way so that we cannot distinguish whether or not they mean BEING AN ELECTRON or BEING AN ELECTRON OR A COW. Then, according to Lewis, BEING AN ELECTRON is intrinsically more eligible to be meant. In his words, natural properties are 'reference magnets' for our words. Since being an electron constitutes an objective joint in reality and being either and electron or a cow doesn't, speakers are more likely to mean BEING AN ELECTRON than a gerrymandered alternative. In this way, the structure of the world is said to *play a role in determining what our words mean*. Use alone, on this view, isn't enough.

In this way, Lewis' conception of a natural property is one way of giving content to the idea that the world comes equipped with its own objective structure and that it is possible to describe the world in terms of this objective structure — to carve nature at the joints — in better or worse ways.

6.2.2   Sider on structure

1. *Extending Lewis.* Sider's understanding of the ability of a word to 'carve at the joints' is similar to Lewis'. For example, like Lewis, he ties his understanding of the world's structure to the role it plays in metaphysical explanations.[5] In addition, he also thinks that meanings which better carve at the joints are more intrinsically eligible to be meant.[6] But his conception of structure diverges from Lewis in a few ways.

First, where Lewis was concerned with marking *relative* distinctions in naturalness, Sider's focus is on the meanings of our words which carve *perfectly* at the joints. This is

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[4]See Lewis (1984).
[5]See Sider (2011: 9 - 15).
[6]See Sider (2011: 23 - 35).

because, in his words, the 'truly central question of metaphysics is that of what is *most* fundamental. So in my terms, we must ask which notions carve *perfectly* at the joints' (2011: 5).[7]

Second, where Lewis only claimed that *predicates* are able to carve at the joints, Sider generalises this notion to *every linguistic category*:

> If the concept of structure is to play [a] role in metametaphysics, it must be generalised beyond ... Lewis' notion of natural properties and relations. For many metaphysical questions are not about universals, properties, or relations. The crucial expressions in ontology, logic, and modality do not stand for universals, properties, or relations; these expressions are quantifiers and operators, not predicates. Our conception of structure, therefore, must allow us to ask, of expressions of any grammatical category, whether they carve at the joints. (2011: 8)

Thus, in order for structure to play the role in metametaphysics that Sider wants it to play, he suggests we move beyond the predicate. On Sider's account, we can also ask whether or not the meanings of modal operators or logical expressions like the existential quantifier, '$\exists x$', carve the world at the joints, allowing us to ask whether the world is modally or logically structured.

Finally, while both Lewis and Sider understand structure by tying it to the role it plays in metaphysical explanations, Sider's understanding of this role is more general than Lewis'. After all, there are certain explanatory roles — like that of marking objective similarities — for which predicates are more appropriate than quantifiers and operators.[8] Instead, Sider identifies the concepts which carve at the joints with the concepts required to formulate our best theories of the world, in a sense familiar from the Quinean methodology for metaphysics.

His idea is to start with Quine's (1951: 14) thought that a metaphysical theory consists of both *ideological* and *ontological* commitments. The ontological commitments of a theory concern the objects a theory must assume to exist in order to be true. The ideological

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[7] This is not to say that Sider doesn't allow for gradations of structure. It's just that in doing metaphysics, Sider thinks we shouldn't be concerned with less accurate or less fundamental carvings.

[8] Sider (2011: 88 - 90) actually *does* think that quantifiers can play a role in marking objective similarities, but these arguments play less of a role in his defence of ontological realism.

commitments of a theory concern the concepts the theory is able to express. For example, the concepts expressed by 'electron', 'spacetime', and 'or' all constitute a theory's *ideological* commitments.

With this distinction in play, Sider adds the following idea to the Quinean methodology:

> The familiar Quinean thought is that we search for the best — simplest, etc. — theory that explains our evidence. My addition to this thought — though it may have been implicit all along — is that this search is ideological as well as doctrinal; we search simultaneously for a set of concepts and a theory stated in terms of those concepts. We solve for the best and most explanatory pair $\langle I, T_1 \rangle$ of ideology I and theory T_1 in terms of that ideology. We do not hold fixed our initial ideological choices ('fire', 'air', 'water' …) since there may be limits to how good a theory can be formulated in those terms. Many of the most dramatic advances in sciences are ideological; a new ideology (such as that of Minkowskian spacetime) can dissolve intractable problems and enable new, more powerful theories. (2011: 13)

His idea is that, in devising a theory, we are simultaneously assessing both our ontological and *ideological* commitments by figuring out which commitments lead to the most theoretically virtuous theories. For example, suppose we cannot dispense with the concept of spacetime without making our theory of the world less virtuous. Then, according to Sider, this gives us reason to think that 'spacetime' carves perfectly at the world's spacetime structure. Likewise, if we cannot dispense with 'or' in our best theories, then this gives us reason for thinking that 'or' carves perfectly at the world's logical joints. Thus, Sider claims we should 'regard the ideology of our best theory as carving at the joints … conceptual decisions correspond to something real: reality's structure' (2011: 12).

2. *Quantificational structure*. With Sider's general understanding of structure in place, let's focus on the idea that the world has *quantificational* structure, in particular. Start with the thought that a quantifier like 'there exists' has different candidate meanings. According to Sider, a candidate meaning of 'exists' is one that is '*inferentially adequate* in the sense that the core inference rules of quantification theory must come out truth-preserving' (2011: 177). Thus, each candidate will allow inferences like that from 'Ted is a philosopher' to

'There is a philosopher' to come out true. However, according to Sider it's 'not hard to concoct arbitrary and bizarre assignments of truth-values to quantified sentences while preserving [these] inference rules' (2011: 177). For example, consider the meaning assigned to 'there exists' such that it is inferentially adequate but true iff something is living in Trump's hair or walking on Mars. Because such a candidate meaning wouldn't be any help in the formulation of a best theory, it cannot be said to carve at the joints.[9]

According to Sider, out of all the candidate meanings of 'there exists', there is *one* candidate meaning which carves perfectly at the quantificational joints. But what candidate meaning is *that*? Recall Sider's methodology for determining which of our concepts carve perfectly at its joints: that we should regard as perfectly joint carving the ideology required to formulate our best theory. Suppose we arrive at a best theory and find that, not only must our theory be written using quantifiers, but also that we can dispense with quantification over everything but spacetime points and sets.[10] If true, Sider claims we can identify the candidate meaning of 'there exists' which carves perfectly at the joints with the candidate meaning of 'there exists' which is true of only the spacetime points and sets. Thus, by figuring out that our fundamental theory of the world only requires quantification over spacetime points and sets we are simultaneously arriving at the meaning of the quantifier which carves perfectly at the joints. Meanings of the quantifiers which allow, for example, 'Tables exist' to come out true will therefore be candidate meanings which *fail* to carve perfectly at the quantificational joints. For we now know that the world's distinguished quantificational structure is such that there are — in the perfectly joint carving sense of 'there are' — only spacetime points and sets. Therefore, in saying that the world has a distinguished quantificational structure, Sider is claiming that there is a privileged domain of objects, indispensable to our best metaphysical theory, that the joint-carving meaning of 'exists' latches onto.

Before moving on, allow me to note some consequences of the idea that there is a perfectly joint-carving meaning of 'exists'. First, because meanings which better carve the world at the joints are more intrinsically eligible to be meant, Sider thinks the meaning of 'there exists' which carves perfectly at the joints is more eligible to be meant than other

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[9]Note, I am giving Sider the idea that the meaning of a quantifier is somehow more than its inferential role. See my (2014) for why an ontological pragmatist may object to this idea.

[10]Sider (2011: 292 - 296) suggests this is perhaps the most likely 'worldview' one gets his conception of metaphysics.

candidate meanings.

Second, on this view, even though 'There are tables' may be true given a candidate meaning of 'exists' which doesn't carve perfectly at the joints, there aren't *really* any tables. Table talk is *mere* talk, even if true in a non-joint-carving language. As Sider claims:

> Define 'ontologically committed to F's' as meaning 'believing there are some F's, in the fundamental sense of "there are"'. This allows someone to say in English that there are F's without ontologically committing to F's, if English quantifiers are nonfundamental. (2011: 202)

Thus all that exists, on this account, is what exists according to the perfectly joint-carving meaning of 'exists'.

Finally, despite the fact that there aren't really any tables, Sider thinks that we can explain the truth of sentences like 'Tables exist' *in terms of* expressions which carve perfectly that the joints. For example, once we have arrived at a theory cast in perfectly joint carving terms, one of the things we can do with this theory is to provide *explanations* of all the claims we make using non-joint-carving meanings. For example, we can explain when it is true to say that there are tables by employing the following biconditional:

> (MS) The sentence 'There exists a table' in a non-joint-caving language, L, is true iff THERE EXISTS A TABLE-WISE ARRANGEMENT OF SPACETIME POINTS.

Here the right-hand-side of (MS) is cast using only notions which carve perfectly at the joints. Moreover, the right-hand-side is claimed to explain, in perfectly joint-carving terms, why it's true to say 'There are tables' in a non-joint-carving language. Sider calls this providing a 'metaphysical semantics' (2011: 112) and suggests that one of the primary explanatory goals of developing a metaphysical theory is to arrive at these kinds of explanations.

6.3 Quantifying by carving

Let's now introduce Sider's 'best argument' for the idea that the world has a distinguished quantificational structure, in the sense described above. Here's his summary of the argument:

> Questions framed in indispensable vocabulary are substantive; quantifiers are indispensable; ontology is framed using quantifiers; so ontology is substantive — that's the best argument for ontological realism. (2011: 188)

For Sider, a question is 'substantive' if 'the question is cast in perfectly joint carving terms' (2011: 46).[11] After all, in order to figure out which terms carve perfectly at the joints we need to figure out which concepts are required in the formulation of our best theories — and this isn't a trivial or otherwise easy endeavour.

In my view, Sider's argument is best presented by dividing it in two. First, there is the argument that, because quantifiers are indispensable to our best theories, we should regard them as carving perfectly at the joints. This is Sider's indispensability argument for ontological realism. Second, there is the argument that, because ontological questions can be framed using a perfectly joint carving meaning of the quantifier, we should think of ontological questions as substantive, rather than easily resolvable. This is his argument against forms of deflationism like easy ontology. Allow me to describe both arguments.

6.3.1 The indispensability argument

To start, here is a schematic formulation of Sider's indispensability argument.

THE INDISPENSABILITY ARGUMENT FOR ONTOLOGICAL REALISM

(1p) We should regard as perfectly joint-carving the ideology indispensable to our best theories.

(2p) Quantifiers are indispensable to our best theories.

(3c) Therefore, quantifiers carve perfectly at the joints in our best theories.

The form of the argument is like the Quine-Puntam indispensability argument for the existence of numbers. However, instead of being directed at the existence *of a given range of entities*, Sider's argument is directed at the *ideology* of a theory — in this case, the concepts expressed by the quantifiers themselves. In what follows, I'll explain how Sider justifies premises (1p) and (2p).

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[11]See Sider (2011: 44 - 84) for an elaborate account of substantivity.

1. *Justifying (1p)*. First, why regard as perfectly joint-carving the ideology indispensable to our best theories? As we saw, Sider thinks the fact that some conceptual choices are required in order to make our theories maximally virtuous gives us reason to think that these concepts better track the world's intrinsic structure. However, allow me to bolster this point by detailing Sider's justification for this idea.

Here Sider asks us to consider conceptual choices made in our best scientific theories:

> [C]onsider rewriting a given theory of mass and charge in terms of *schmass* and charge, where the schmass of an object is its mass if it has unit negative charge and twice its mass otherwise. The rewritten theory has the same consequences about charge and mass as the original, so 'charge' and 'mass' are in a sense dispensable in physics. But the resulting theory is far worse as a theory. What were syntactically simple generalisations in the old theory are no longer simple in the new. (2011: 14)

His idea is that dispensing with 'mass' in favour of a gerrymandered concept 'schmass' would result in a less simple — and therefore less theoretically virtuous — physical theory. Thus, it seems that ideological choices do have an effect on the overall plausibility of a theory and therefore, according to Sider, because 'mass' is indispensable to the virtuousness of our theories, we have reasons for thinking that the ideology of 'mass', rather than 'schmass' better carves the world at its joints.

In addition, Sider also considers the impact that *changes* in our concepts can have on the virtuousness of our theories:

> The Quinean thought also rationalises changes in beliefs about what is fundamental. The special theory of relativity led to (at least) two such changes. First, we came to regard electromagnetism as a single force, rather than regarding electricity and magnetism as separate forces. And second, we came to regard spacetime as lacking absolute spatial and temporal separation. These changes weren't ontic: changes in which entities are accepted. Nor were they merely doctrinal: changes in view, but phrased in the old terms. These changes were rather ideological: we revised our fundamental ideology for describing the world. (2011: 13)

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Thus Sider argues that because *changes* in ideology — like the shift from Newtonian concepts to Einsteinian ones like 'electromagnetism' and 'spacetime' — gave us better theories, this gives us reasons to accept the idea that concepts like 'electromagnetism' and 'spacetime', better carve the world at its electromagnetic and spacetime joints.

In effect, Sider's overall case for (1p) can be put like this. Suppose you agree with the common Quinean thought that if (say) quantification over numbers is indispensable to the formulation of a best theory of the world, then this gives us reasons to think that the world is a certain way — that the world is such that there are numbers. Then, so too, Sider argues, you should also agree that, if certain ideological concepts like 'mass' and 'spacetime' are indispensable to the formulation of our best theories, then this gives us reason to think of that the world's structure is a certain way — that mass and space-time constitute distinctive joints in the world's structure. After all, in both cases our thought that the world is a certain way — that it contains some range of objects or has a certain structure — is justified by the idea that these commitments are indispensable to our best theories. Thus, 'the confirmation of a theory confirms its ideological choices as well and hence supports beliefs about structure' (Sider, 2011: 13). If true, this justifies (1p).

2. *Justifying (2p)*. With (1p) now in place, if Sider can show that quantificational concepts are indispensable to our best theories, he'll have shown that they can carve perfectly at the joints. Here's Sider's central argument for the claim that quantifiers are indispensable:

> [T]he way to tell which notions carve at the joints is broadly Quinean: believe in the fundamental ideology that is indispensable in our best theories. This method yields a clear verdict in the case of quantification. Every serious theory of anything that anyone has ever considered uses quantifiers, from physics to mathematics to the social sciences to folk theories ... there is no feasible way to avoid their usage. Quantification is as indispensable as it gets. This is defeasible reason to think that we're onto something with our use of quantifiers, that quantificational structure is part of the objective structure of the world, just as the success of spacetime physics gives us reason to believe in objective spacetime structure. (2011: 188)

Thus Sider claims that because quantification is required in formulating any serious theory, we have reasons to think that quantifiers carve perfectly at the joints — that there is some

privileged quantificational structure that we can arrive at in developing a best theory.

That quantification is indispensable is deeply intuitive. For example, quantification is embedded in both physics and the mathematics that physics employs. It seems essential to the formulation of a physical theory that it be able to quantify over points and regions in spacetime. In addition, in mathematics it seems essential to be able to quantify over real numbers, primes, and vectors. If we tried to formulate a best theory without quantifiers, then it looks like these theories wouldn't be a part of our best theory of the world. In addition, if these quantifier-laden theories weren't a part of our best total theory of the world, then we'd have to show how some quantifier-free theory would be able to explain these physical and mathematical truths — and it is doubtful that this could be pulled off.

For these reasons, Sider contends that we have very good reasons to think that quantification is indispensable to any of our best theories — including whatever total metaphysical theory we ultimately arrive at — thereby justifying (2p).

Suppose the first two premises of the argument are sound. Then quantification will be indispensable to any best total theory of the world and we'll therefore know that there is some meaning of the existential quantifier which carves the world perfectly at the joints. In other words, we'll know that the world has a distinguished quantificational structure, vindicating (3c). And to vindicate (3c) is simply to vindicate *ontological realism* — the view that the world has a distinguished quantificational structure.

6.3.2   The threat to easy ontology

What *threat* does this pose to ontological pragmatism and other forms of easy ontology? Given the assumption that there is some candidate meaning of 'exists' which carves perfectly at the joints, Sider wages two arguments against easy ontological views.

His first argument turns on the idea that if 'exists' carves perfectly at the joints, then this meaning of the quantifier can render *false* the purported conceptual truths the pragmatist relies on in her easy arguments. For example, the pragmatist will claim that she is entitled to accept the conditional

(1) If there are particles arranged table-wise, then there exists a table,

as *true*, given the fact that she knows the usage rules for the term 'table' and knows that

'table' can be applied whenever there are particles arranged table-wise, allowing her to conclude that tables exist. Our ontological pragmatist thus takes themselves to be entitled to the truth of (1) wholly in virtue of her linguistic competence — and this is what entitles her to the claim that we can provide trivial answers to ontological questions without engaging in mainstream ontology.

However, according to Sider, given the assumption that some candidate meanings of 'exist' carves perfectly at the joints, it could be that (1) is *false* even if speakers use terms like 'table' and 'exists' in the way the ontological pragmatist suggests. This is because a 'rule of inference governing certain terms might not be the only metasemantic pressure on those terms' interpretation' (2011: 192). For example, in providing an interpretation of the meaning of the sentence 'There exists a table', there may be pressure coming from a 'more metaphysical source' (2011: 192) than inferential use alone. In particular, if 'exists', as it appears in the consequent of (1), has a candidate meaning which carves perfectly at the joints, then the world's quantificational joints will exert *reference-attracting* pressure on our interpretation of 'exists' in the consequent of (1). After all, on Sider's account, perfectly joint-carving meanings are intrinsically more eligible to be meant. Therefore, given that the world has a certain quantificational structure, the joint-carving meaning of 'exists' will be more eligible to be meant despite the rules of use constraining existence claims.

Suppose further that the joint-carving meaning of 'exists' carves the world in terms of only simple-particles and therefore doesn't allow for quantification over composite objects like tables. Then this meaning with be one which renders 'There exists a table' *false*. For this joint carving meaning only carves the world at the level of simple particles. Thus, according to Sider, if there is a meaning of 'exists' which carves perfectly at the joints, then there is interpretative pressure leading us to think that conditionals like (1) are false and that their corresponding inferences are not in fact truth-preserving.

Sider provides a second argument against easy ontology. Here, Sider concedes that there is *no metaphysical pressure* exerted on our interpretation of sentences like 'There exists a table' in the consequent of (1). Our interpretation of 'There exists a table' is constrained only by our use, entitling the pragmatist to the truth of (1). Nevertheless, Sider claims, this does not make ontological questions easily resolvable.

The reason is that (1) is only true given what 'exists' means in *English*. But since there

is a meaning of 'exists' which carves perfectly at the joints, Sider contends we can go in for the following strategy:

> We [can] replace the ordinary expression ['exists'] with an improved expression ['ᴇxɪsᴛs'] that we stipulate is to stand for the joint-carving meaning in the vicinity. The question we ask in the metaphysics room, cast in terms of ['ᴇxɪsᴛs'] rather than ['exists'], is substantive. Indeed, it is *superior* to the original question, for it concerns reality's fundamental structure, rather than it's merely conventional or projected aspects. (2011: 74)

The thought is that, if (1) is true, it is only true because the meaning of 'exists' in English doesn't carve at the joints. But saying that tables exist given what 'exists' means in a non-joint-carving language is insufficient to establish the existence of tables. After all, what really exists, given ontological realism, is what exists in the distinguished sense of 'ᴇxɪsᴛs'. Thus, Sider suggests the following response to the easy ontologist:

> [W]hen applied to *English* quantification, [your] picture might well be correct, even if ontological realism is true. But in that case, the appropriate language for conducting ontology would be Ontologese, in which the quantifiers are stipulated to carve that the joints, and in which sentences like [(1)] are not [conceptual truths]. English is second-rate ... Ontology in Ontologese remains hard — and better. (2011: 196-197)

Thus, even though (1) may be true in English, it is not clear if 'There exists a table' is true in Ontologese — the language in which 'exists' is stipulated to carve at the joints. For figuring out whether or not tables exist, in the distinguished sense of 'exist', requires figuring our whether or not we need to quantify over tables in our best theory of the world. In other words, it requires us to do mainstream ontology.

In each case, therefore, Sider maintains that if our quantifiers carve perfectly at the joints, then the easy arguments the pragmatist relies on are no longer a good guide to answering existence questions. Thus, if the pragmatist wants to retain her claim that many ontological questions can be answered in a way that requires no substantial metaphysical theorising, she'll have to reject ontological realism. And this will require figuring out some way to respond to Sider's indispensability argument.

6.4 Two paths to avoiding ontological realism

In my view, the ontological pragmatist *can* respond to the indispensability argument and so undercut the main motivation for ontological realism. In this section, I want to carve out a path for my own response by taking a look at some alternative paths and describing their drawbacks. The first path suggests that we should *engage* with Sider by arguing that quantification is *dispensable* to any best total theory of the world. The second path suggests that the ontological pragmatist *needn't engage* with Sider's argument at all, for it is an instance of misguided metaphysics.

6.4.1 There's no 'there' there

The first path towards rejecting the indispensability argument claims that quantifiers are dispensable to any best theory of the world and so (p2) is false, by Sider's own lights. The claim that quantification is dispensable has been put forward by John Burgess (2005), but receives an extended application to Sider's case by Tom Donaldson (2015). The idea is that we can use Quine's (1960) *predicate functor logic* to prove that any regimented sentence involving quantification within a theory can be paraphrased into an equivalent sentence which *dispenses* with quantification altogether.

I'll briefly illustrate the idea. Suppose that the following sentence is an element of our best total theory:

(1) $\neg \exists x \, (x \text{ lives} \wedge \neg \, (x \text{ dies}))$

[*Read*: Nothing lives and doesn't die]

What Quine's predicate functor logic allows us to do is replace every occurrence of a variable bound by a quantifier in sentences like (1) with new operators called 'predicate functors'. Grammatically, the role of a predicate functor is to attach to a predicate and form a new predicate (perhaps with different 'adicies). What we do is enrich our language with new predicate functors — υ, κ, σ, ρ, ϕ, and Ψ — which we define according to the following schematic equivalences:[12]

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[12] The notation I'm using here can be found in Burgess (2005).

$(\upsilon) \, \neg F x_1 \ldots x_m \equiv (\upsilon \, F) \, x_1 \ldots x_m$

$(\kappa) \, F x_1 \ldots x_m \wedge G y_1 \ldots y_m \equiv (\kappa \, FG) \, x_1 \ldots x_m \, y_1 \ldots y_m$

$(\sigma) \, \exists x_m \, (F x_1 \ldots x_{m-1} x_m) \equiv (\sigma \, F) x_1 \ldots x_{m-1}$

$(\rho) \, F x_1 \ldots x_{m-1} x_{m-1} \equiv (\rho \, F) \, x_1 \ldots x_{m-1}$

$(\phi) \, F x_1 \ldots x_m x_{m-1} \equiv (\phi \, F) \, x_1 \ldots x_{m-1} x_m$

$(\Psi) \, F x_m \ldots x_{m-1} x_1 \equiv (\Psi \, F) \, x_1 \ldots x_{m-1} x_m$

What the schema tells us is that we can systematically paraphrase the sentence forms of first-order predicate logic on the left-hand-side for sentence forms involving predicate functors on the right-hand-side. Since the role of a predicate functor is to attach to an old predicate and form a new one, the result will be that we can turn each non-predicative part of a sentence of first-order predicate logic into, what is effectively a complex predicate-like sentence.

To show this, let's paraphrase (1). We can reduce (1) into an equivalent sentence without variables or quantification in the following steps. (In the English translations below I'll mark the part of the sentence we are turning into a new predicate with brackets.)

(2) $\neg \exists x \, (x \text{ lives} \wedge (\upsilon \text{ die}) \, x))$ ⠀⠀⠀⠀⠀⠀⠀⠀⠀⠀(by (υ))

[*Read*: There is nothing that lives and (doesn't die)]

(3) $\neg \exists x \, (\kappa \text{ lives} \, (\upsilon \text{ die})) \, xx$ ⠀⠀⠀⠀⠀⠀⠀⠀⠀⠀⠀⠀(by (κ))

[*Read*: There is nothing which (respectively lives and doesn't die)]

(4) $\neg \exists x \, (\sigma \, (\kappa \text{ lives} \, (\upsilon \text{ die}))) \, x$ ⠀⠀⠀⠀⠀⠀⠀⠀⠀⠀⠀(by (σ))

[*Read*: There is nothing that (self-respectively lives and doesn't die)]

(5) $\neg \, (\rho \, (\sigma \, (\kappa \text{ lives} \, (\upsilon \text{ die}))))$ ⠀⠀⠀⠀⠀⠀⠀⠀⠀⠀⠀(by (ρ))

[*Read*: Not (just self-respectively live and not die)]

(6) $\upsilon \, (\rho \, (\sigma \, (\kappa \text{ lives} \, (\upsilon \text{ dies}))))$ ⠀⠀⠀⠀⠀⠀⠀⠀⠀⠀⠀(by (υ))

[*Read*: (Doth not just self-respectively live and not die)]

Thus by the time we get to (6) we've turned (1) into a predicate-like sentence dispensing with quantifiers and variables altogether.[13] Since it can be shown that predicate functor logic has the expressive power of first-order predicate logic, we can expect that, for any sentence of first-order predicate logic involving quantifiers, we'll be able to find an adequate paraphrase into a language which dispenses with quantification altogether.[14]

Following Donaldson (2015: 1060 - 1070), if we combine this with the thought that first-order predicate logic is not obviously more theoretically virtuous than predicate functor logic, we'll have an argument to the effect that quantification is dispensable to any maximally virtuous theory. For example, as Donaldson argues, any theory regimented in predicate functor logic will be *empirically equivalent* to one regimented in first-order predicate logic. In addition, Donaldson argues, it isn't clear that first-order predicate logic is *simpler* than predicate functor logic. For while any theory written in predicate functor logic will often involve cumbersomely long sentences, this is only because first-order predicate logic has an *infinite lexicon*, given that it contains infinitely many variables. The predicate functor logic, on the other had, contains no variables and so has only a *finite lexicon*. But this choice, Donaldson argues, is much like that between employing a logic consisting only of the Sheffer stroke '|' or one consisting of negation, '¬', and conjunction, '∧'. Employing only '|' will be more cumbersome, because we'll have less in our lexicon. Employing '¬' and '∧' will be less cumbersome, because we'll have more in our lexicon. But these, Donaldson argues, don't seem to be decisive reasons to say that one logic is really simpler than the other.[15]

While this is merely a brief sketch of the argument, its successful implementation would give the ontological pragmatist grounds for claiming that quantification is *dispensable* to any best theory of the world, by Sider's own lights. For we'd be able to present him with a better or equally good theory of the world which dispenses with quantificational ideology altogether. We could thus safely deny (2p) and reject the soundness of Sider's argument.

However, there are reasons the ontological pragmatist should be *worried* about this strategy. First, Sider (2011: 185) has already responded to arguments of this form by claiming

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[13]Read 'Doth' in (6) as a dummy term, much like the 'it's' in 'It's raining' which doesn't purport to pick out an object but merely 'places' a predicate.

[14]See Kuhn (1983).

[15]Actually, Sider (2011: 217-218) does think there are facts about which choice of logically equivalent connectives carve at the joints and would therefore likely dispute this.

that it is problematic for a deflationist given that it doesn't make certain metaphysical questions go away. For example, given that every sentence of first-order predicate logic will have an equivalent paraphrase in predicate functor logic, asking after the truth of a claim like 'There exists something that has an F and a G as parts' will have a paraphrase in predicate functor logic. And while asking after the truth-value of this new paraphrased sentence won't be the same as asking an *ontological* question, in the sense of asking if something exists, it will be asking a *metaphysical* question, in the sense of asking whether the predicate like features of the world have parts. More worryingly, in order for the argument to really be convincing, the pragmatist would have to do the dirty work of paraphrasing away every instance of quantification in theories like physics and mathematics and show that these new, quantifier-free theories are at least as virtuous as the quantifier-loaded ones. This is a difficult task and it's doubtful that such a theory would ever be usable by physicists and mathematicians.[16]

However, what may be *most worrying* for the ontological pragmatist is that the argument requires us to show Sider that he is wrong about the indispensability of quantification *on his own terms*. And these terms are explicitly *metaphysical* ones. The more the ontological pragmatist engages in developing different paraphrase strategies for physical, mathematical, and other claims, and starts comparing these strategies in light of the theoretical virtues, the more the pragmatist looks like a *metaphysician*. For this reason, Sider could turn around to someone wielding this argument and claim that what they've shown is that *the world has no quantificational structure*. But surely the claim that the world has no quantificational structure is itself a *metaphysical* claim. In addition, figuring out what ideology our best theory of the world must contain may be taken as a tacit endorsement of Sider's own method for figuring out what the structure of the world is really like. And this is not a far cry from a tacit endorsement of the methodology of mainstream ontology which the ontological pragmatist rejects. Surely the pragmatist, as someone who wants to be a quietist about metaphysics, would want to disengage from a metaphysical project like this if she can.

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[16]See Turner (2009) for some arguments here, but see Donaldson (2015) for a response.

6.4.2   Just walk away

Thus we might do better by going down the second path towards rejecting Sider's argument: that because the indispensability argument relies on the neo-Quinean methodology, the ontological pragmatist can simply disregard it altogether. In fact, this is the path that Thomasson endorses in her criticisms of Sider. Here is her response in full:

> We can also easily refrain from accepting what Sider calls the 'best argument' for the view that quantifiers carve at the joints. For that 'best argument' is squarely based on the (neo-)Quinean methodology: that we should accept that quantificational structure is part of the 'objective structure of the world' given it's indispensability in our best theories. But of course most deflationists reject this neo-Quinean methodology and so have no reason to be moved by an argument like this one. So it seems his arguments for extending the idea of structure beyond the predicate are preaching to the neo-Quinean choir; they presumably are not even aimed at convincing deflationists. (2015: 305)

We can think of Thomasson's response this way. Recall that Sider's premise (1p) — that indispensable ideology is perfectly joint-carving ideology — is supported by the following idea: that just as we should regard the indispensability of a given entity to our best theories as evidence of the existence of those entities, so too we should think that the ideology indispensable to our best theories gives us insights into the world's structure. However, easy ontologists don't accept that the indispensability of a given entity constitutes evidence that there are these entities. The existence of a given entity is to be established by an *easy argument*, rather than an indispensability argument. In the same way, the easy ontologist won't be convinced that the indispensability of a bit of ideology gives us evidence that that ideology carves at the joints. For she wasn't even convinced by the standard indispensability arguments in the first place. Thus, even if (2p) is true — even if quantification is indispensable — this doesn't give us any reason for thinking that quantifiers are latching on to the world's structure — and therefore no reason to accept (1p), allowing us to walk away from the argument.

To an extent, I think the ontological pragmatist should agree. After all, the pragmatist rejects the methodology of mainstream ontology and so shouldn't be convinced by Sider's employment of that methodology in his own indispensability argument. However, I

also don't think the ontological pragmatist can walk away from Sider's argument this easily.[17] The reason is that we can reframe the indispensability argument as an *explanatory challenge* to the ontological pragmatist.

Here's what I take the challenge to be. Recall that, in justifying premise (2p), Sider draws our attention to a fact about our *practice* of using quantifiers: namely that their usage in our theories is *ubiquitous* and unlikely to be dispensed with. As Sider claims, 'Every serious theory of anything that anyone has ever considered uses quantifiers, from physics to mathematics to the social sciences to folk theories ... there is no feasible way to avoid their usage' (2011: 188). In drawing our attention to this feature of our use of quantifiers, Sider's argument can be recast as an *inference to the best explanation regarding a feature of our linguistic practices*: that the best explanation of why every serious theory uses quantifiers and why there is no feasible way to avoid their usage is that quantificational structure is a part of the objective structure of the world. In fact, this challenge may have been implicit in Sider's argument all along. As he claims, these facts about our use of quantifiers give us 'defeasible reason to think that we're onto something with our use of quantifiers, that quantificational structure is part of the objective structure of the world' (2011: 188). Thus the explanatory challenge for the ontological pragmatist is to explain this feature of our practice of using quantifiers *without* positing that the world has a distinguished quantificational structure.

Note that this is a different challenge from the original indispensability argument. The original argument was a metaphysical one asking a question about the *world*: Does the world have a distinguished quantificational structure? Sider's answer was that it does and his *evidence* what that quantification is indispensable to our best theories. The new challenge poses a question about *language*: Why is it that our use of quantifiers is indispensable to our practice of formulating theories? Sider's answer is now that it is because our quantifiers are there to carve the world at its distinguished structure. The pragmatist may avoid answering the former question but needs to provide an answer to the latter.

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[17]Note, I don't want to suggest that Thomasson merely walks away herself. Instead, she provides arguments which problematise the idea that quantifiers carve at the joints (2015: 308 - 317). But this argument of her's isn't an argument against Sider's indispensability argument specifically and that argument is my focus here.

Why does the pragmatist need to answer the latter question? Because, as it stands, the pragmatist is in an awkward dialectical position. For, while the pragmatist will be unconvinced by appeals to neo-Quinean methodology, she is, presumably, interested in explaining facts about our *linguistic practices*. What Sider has done is call attention to some data about our practice of using quantifiers: that quantification is *everywhere* in our theories and that there seems to be *no feasible way* of avoiding their usage. Surely the pragmatist will want to be able to provide an explanation here. The problem is that the only explanation at the moment is one that *vindicates ontological realism*: that we find quantification indispensable to our theories because the world has a distinguished quantificational structure. Thus, Sider will claim, if we didn't make use of quantifiers, we'd miss out an an important feature of reality. If the pragmatist says nothing more, the ontological realist will now be able to better account for this feature of our use of quantifiers. For, by walking away, the pragmatist will also walk away from explaining why it is that quantifiers seem so indispensable. Therefore, while Thomasson is correct to claim that deflationists need not be convinced by the indispensability argument, we're going to have to say *something* in light of explaining the indispensability of quantification to really get rid of ontological realism.

6.5   The pragmatic indispensability of quantification

I've now argued for two things. First, that the ontological pragmatist has reasons to avoid responding to Sider's argument *on his own terms* by arguing that quantification is *dispensable* to any best theory. But, second, I argued that the pragmatist cannot simply walk away from Sider's argument, for she needs to respond to an explanatory challenge arising from it: to show, in her own terms, why it is that quantification is indispensable without relying on the notion of quantificational structure. My own strategy for responding to Sider's argument will therefore be to explain the indispensability of quantification in pragmatic terms: to argue that it is only indispensable for us in serving a certain kind of practical need.

Here, I'll do three things. First, I'll highlight the form my response will take by making an analogy between the function of quantifiers and the function of numerical terms. Second, I'll describe how the pragmatist can employ her own understanding of the rules

of use constituting the meaning of 'exists' to show that quantification turns out to be practically indispensable to us, given our limitations. Finally, I'll argue that the pragmatist can now safely walk away from talk of quantificational structure and ontological realism entirely.

6.5.1   A Fregean analogy

One way to understand the kind of argument I'm about to make is by thinking of the practical indispensability of quantification on analogy with the practical indispensability of mathematics to science argued for in the previous chapter. An analogy of this kind has been made before. Consider Frege's famous claim:

> [E]xistence is analogous to number. Affirmation of existence is in fact nothing but the denial of the number nought. (Frege, 1884: 65)

Frege's thought is that saying that spirits don't exist is like saying that the number of spirits is zero. Likewise, saying that there are wallabies is like saying that the number of wallabies is not zero. In this sense, there seems to be a close connection between numerical claims and existential ones.

Recall that, in the previous chapter, I argued that our use of numerical terms plays an important practical role in our lives: by making use of numerical terms and asserting claims like

(7) The number of cats is greater than the number of dogs,

we can communicate, in a finite way, infinitely long claims in which numerals occur in the determiner position:

(8) There are either two cats and one dog or three cats and two dogs or four cats and three dogs or ...

In addition, I argued that there are many cases in which scientists will want to encode or capture certain infinite chains of information about the physical world, like (8), in laws and generalisations. However, because no scientist is an infinite being, any scientist will have to use numerical singular terms in sentences like (7) to communicate these infinite chains of information in a finite way. Thus, the ontological pragmatist was able to explain the

indispensability of mathematics in science in virtue of its being *pragmatically indispensable for us* as theorisers, given our finite limitations. If we want our scientific theories to cover an uncountable range of physical facts, we'll have to make use of numerical singular terms.

If existence is analogous to number, then might existential quantification play an analogous practically indispensable role in the formulation of our theories? I think it does. To show you why, allow me to re-introduce the pragmatist's account of 'exists'.

In chapter 3, I argued that the pragmatist could take inspiration from Thomasson's account of 'exists' in terms of the following schema

(E) Ks exist iff the actual application conditions for 'K' are fulfilled,[18]

to provide their own inferentialist account of 'exists'. For example, the pragmatist can use the right- to left-hand-side of (E) to provide an account of the *introduction rules* for making an existence claim: where a general term like 'table' or 'number' applies in a sentence like 'That is a table' or 'Two is a number' speakers are entitled to infer that 'There exists a table' or 'There exists a number'. Schematically, we represent this as ($\exists$-i):

$$\frac{\mathrm{K}(t)}{\exists x\ \mathrm{K}x}$$

However, I also argued that the pragmatist runs into a problem in deriving an elimination rule from the right- to left-hand-side of (E): from sentences like 'There exists a table' we cannot infer any *particular* sentence in which 'table' or some other general term applies. For example, from 'There exists a table' we cannot infer 'The piece of furniture I bought yesterday is a table', for I might have bought a chair. Nevertheless, the pragmatist overcame this difficulty by claiming that, *from* a general existence claim, speakers are entitled to *assume* that a term 'K' applies and then move on to employ their prior knowledge of how 'table' is used to infer some further claim: 'There exists something I can eat on', for example. Schematically, we represent this as ($\exists$-e):

$$\frac{\exists x\ \mathrm{K}x \qquad \overset{[\mathrm{K}(\alpha)]}{Q}}{Q}$$

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[18] See Thomasson (2015: 86).

This is still in the spirit of Thomasson's view because of the connection between making an existence claim and correctly applying a general term. For, from an existence claim, we are still entitled to the assumption that a general term applies, even if *we have no particular way of doing so*.

But here we arrive at a practical limitation: there will always be cases in which it is important for us to be able to make claims about objects even though we have no way of expressing *particular* beliefs about them of the form 't is K'. In other words, it may be important for us to make claims about objects even though we cannot answer the question of *who* or *what* that object is in particular. Being limited in this way can occur for two reasons. First, it might occur because we are *ignorant* of *which* object exactly it is that we want to make a claim about. Second, it may be that we want to be able to communicate infinitely many particular facts of the form 't is K', but because we are only *finite* creatures we won't be able list *each* fact in this form. Thus we have two kinds of expressive limitations, having to do with *ignorance* and *finitude*.

For this reason, in addition to the practical role of existence claims highlighted in chapter 3, I want to argue that we can add a further one:

(F-E*) The practical function of 'exists' is to allow speakers to indicate or express commitment to facts about particular objects in the absence of an ability — because of finitude or ignorance — to pick out those objects particularly.

In this sense, 'exists' is useful as a kind of generalising device allowing us to communicate information that we cannot communicate particularly.

Returning to the analogy, in the mathematical case the idea was that, because creatures sufficiently similar to us cannot make claims like (8) in their scientific theories, they find it indispensable to indicate or express commitment to these facts by using numerical terms in sentences like (7). Likewise, the claim I want to make is that, because theorisers sufficiently similar to us will never be able to communicate certain *particular* facts about objects, given limitations of finitude and ignorance, they will find it indispensably useful to employ quantification to express commitment to these particular facts. In this sense, the pragmatist can claim that existential quantification is indispensable in our theories given it's generalising function. By explaining the indispensability of quantification this way, the pragmatist will be able to provide an explanation of why quantification is indispensable in her own terms, without worldly quantificational structure. In fact, the pragmatist will be

able to claim that the point of making a quantificational claim isn't to carve the world at the joints at all; instead, it is to be able to indicate a commitment to certain facts about particular objects in the absence of an ability to pick these objects out particularly.

6.5.2   'Exists' as a generalising tool

Let's bolster this idea by highlighting cases where quantification can be seen as playing this practically indispensable role. In each case, I'll make use of the pragmatist's 'exists', making no recourse to quantificational structure.

1. *Finitude.* I'll start by illustrating how the use of 'exists' is indispensable for *finite* creatures in the formulation of a theory. Suppose we claim

(9) There exists a prime number.

In addition, consider the fact that there is a well known connection between general existential claims and disjunctive claims.[19] For example, it seems we can capture the information encoded in (9) by asserting

(10) Either two is prime or three is prime or seven is prime or seventeen is prime or thirty one is prime or ...

Of course, there are infinitely many primes. So the list in (10) is an infinite disjunction. Because (10) is an infinite list, it is *unusable* by any human being in a mathematical theory. Nevertheless, we'll want to communicate the content of (10) in our theory and asserting (9) allows us to do so with a single sentence.

More strikingly, we can express universal generalisations by making negative existential claims. For example, suppose I assert

(11) There are no natural numbers which are not also integers,

or, equivalently, that whatever is a natural number is an integer. Then I can communicate an infinitely long conjunction

(12) Two is a natural number and an integer and three is a natural number and an integer and seven is a natural number and ...

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[19]See Wittgenstein (1922), Carnap (1937: 100) and van Inwagen (2009: 484).

and so cover information about all the natural numbers. Again, it is impossible for us to formulate a mathematical theory in terms of (12), even though it is a mathematical truth. Therefore, we make use of quantification and simply assert (11). Thus, in each case, if we want to communicate mathematical truths like (10) and (12), any sufficiently finite theoriser will need to make use of quantification. In this sense, quantificational assertions may be seen as playing an indispensable generalising role.

The pragmatist's account of 'exists' can explain how this is possible by exploiting the fact that (∃-e) allows speakers to be entitled to the idea that a given term applies, even if they have no particular way of applying the term. For example, speakers will be entitled to the assumption that 'prime number' *does* apply even in the upper bounds of (10) where they cannot apply 'prime number' by using a sentence of the form 't is a prime number'. Likewise, by taking the negation of (∃-e) in (11), we know that we can assume that, for anything we count as a natural number, we cannot also not count that number as an integer. Thus we'll be in a position to know that 'prime number' and 'integer' correctly applies to each of the conjuncts of (12), even in the upper bounds of those conjuncts that we cannot assert. Surely there will be many cases in which we'll have to make use of quantification in our theories given these expressive limitations, especially in cases like mathematics where want to communicate information about infinite domains.

And this isn't all we can do with 'exists' in these cases. Consider a claim Mark Lance makes, in a related context, about reasoning with arbitrary terms:

> Consider the following bit of discourse: 'We know that there are transcendental numbers larger than any previously generated prime. Let α be such a number. Then α is not a ratio of integers.'... [T]he use of 'α' is not referential in the sense noted above for it would be out of place to ask which number α is. The whole *point* of this use is that it does not commit one to α's being any particular number. And it is undeniable that people use terms in such arbitrary contexts, not only in mathematics, but in all regions of discourse. (1996: 489 - 490)

Lance's idea is that, because there are transcendental numbers greater than any previously generated prime, we cannot be in a position to pick out any of these numbers particularly, since we cannot count up to transcendental numbers greater than a previously generated

prime. Nevertheless, by claiming that there exists such a transcendental number and using (∃-e), we'll be able to be entitled to the assumption that 'is a transcendental number larger than any previously generated prime' does apply, for some arbitrary α and prove some *further* claim about this number: that it is not a ratio of integers. In this way, by using 'exists' in such a way that it conforms to its inferential role, speakers can now *reason about* and discover new information regarding objects they cannot pick out particularly. Surely, in any theory that covers an infinite or even sufficiently large domain will require us to be able to exploit these expressive recourses. Therefore, since we are hopelessly finite, any theoriser must make use of existential quantification in order to acquire these expressive benefits.

Why think that this use of existential quantification occurs only because of our *practical limitations*? Suppose that our favourite mathematical theory is not being formulated by finite creatures, but by infinite gods. Suppose the gods can write out the full content of (10) and (12) without batting an eye. Then the gods would have no need to make any quantificational claims at all. Instead of asserting (9) and (11), they could just as easily assert (10) and (12). In addition, they would have no problem counting up to a transcendental number greater than a generated prime and picking it out with a singular term. They could then reason about this transcendental number *directly* and be able to prove that it is not a ratio of integers, again making no use of quantifiers. Thus, if we were gods, it isn't clear that we would ever need to assert a claim involving 'exists' in order to express all the facts about numbers and other objects that we want to express.

2. *Ignorance*. Let's turn now to cases in which quantification is indispensable given our *ignorance* of particular facts about objects. Suppose a physicist wants to be able to make claims about a particular star in the galaxy GNz-11. Since GNz-11 is the most distant galaxy, there is no way that she'd be able to have any particular knowledge of the form 't is a star in galaxy GNz-11'. She wouldn't know *which* star t is, for it is too far away to know anything about it directly.

Nevertheless, she could start to form further beliefs about it by asserting

(13) There exists a star in galaxy GNz-11.

By asserting (13) and employing the rules of (∃-e), she'll now be entitled to assume that 'star in galaxy GNz-11' applies for some arbitrary α. She'll then be able to use her prior

knowledge of stars to derive some further claim: that there was a gravitational collapse of a gaseous nebula in GNz-11. Thus, by making claims like (13) she'll be able to indicate facts and reason about these objects even though she may be ignorant of *which* star, in particular, she is talking about.

That existential quantification gives speakers this advantage surely amounts to an *indispensable* practical advantage for us in the formulation of a theory. Without this ability, we wouldn't be able to learn more about objects for which we have no particular information. Consider our need to claim that there exists someone who is my secrete admirer, when I have no idea *who* my secrete admirer is; or consider how useful it was for us to be able to say that genes exist prior to knowing *what* exactly a gene was. In each case, because we can make the general existence assertion, we can go on and reason about these things even though we are ignorant of how to pick them out particularly.

Once again, if we didn't have these limitations, we wouldn't need quantification. Suppose our theorisers are gods but, in addition to being infinite, they are also omniscient of all the particular facts of the form 't is K'. Perhaps this is hard to conceive. If they know all the particular facts, why construct a theory? But suppose the gods simply have a different goal in mind. They are not concerned with using their theories to learn more about the world, but simply enjoy making lists of particular facts and recalling to their minds the inferential and explanatory connections they've already worked out between them. If true, then, in laying out their theory, the gods would have no need to make claims like (13). For they would already be acquainted with that particular star in galaxy GNz-11 and be able to reason about the star (recalling to their minds what they already know) directly. Thus, given that creatures without our limitations wouldn't find quantification indispensably useful, we can again conclude that quantification is *pragmatically* indispensable for us in providing a new expressive ability.[20]

Thus the ontological pragmatist now has her *own* explanation of why quantification is indispensable in the formulation of a given theory. This explanation has noting to do

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[20]Note that, in making these kinds of thought experiments, the pragmatist shouldn't be thought of as claiming that quantification is dispensable in Sider's sense. Here I make no claims about whether or not the language of the goes is a better description of the world's structure than our own. I make no claims about structure and am instead using this thought experiment to show how our theories might change if we were different kinds of beings.

with quantificational structure. In fact, the whole idea is that quantification is indispensable because quantifiers play a generalising role, rather than attempt to describe the world's distinguished structure.

6.5.3   Where Sider goes wrong

With this explanation of the indispensability of quantification on the table, we can diffuse Sider's argument. Sider's indispensability argument consists in the following: (1p) We should regard as perfectly joint-carving the ideology indispensable to our best theories; (2p) Quantifiers are indispensable to our best theories; therefore, (3c) Quantifiers can carve perfectly at the joints. Just how the argument can now be undercut depends on how we read 'indispensable' in the two major premises.

First, suppose that by 'indispensable' we mean that the quantifiers are merely *pragmatically indispensable for us*. Then, while (2p) may be true, on this reading, given that existential quantification does seem to be indispensable relative to our practical limitations, there is now no reason to regard (1p) as true. For the reason we make use of existential quantification in our theories has nothing to do with how well it is able to 'mirror the logical structure of the world' (2011: 404). The idea the the world comes equipped with some distinguished quantificational structure plays no role in explaining why quantification is indispensable in this sense. Instead, the indispensability of quantification reflects *facts about us* — our finitude and our cognitive limitations. In fact, there's nothing metaphysical about this explanation. The pragmatist's explanation merely requires theorising about our own practical needs.

However, suppose that by 'indispensable' we mean that the quantifiers are indispensable in Sider's more *metaphysical sense*. Perhaps we mean that the quantifiers are indispensable with respect to providing the best description of the world's fundamental structure or some best total theory of the world. In this case, the pragmatist can now respond in two ways. First, she can side with Thomasson and refuse to engage in this kind of metaphysical speculation. After all, whatever way one comes down on this sort of argument, it won't be convincing to the pragmatist. But, second, the pragmatist also has a way of challenging (2p). Recall that Sider's acceptance of (2p) relied on the idea that 'every serious theory of anything we have ever considered uses quantifiers' and that this gives us 'defeasible reason to think that ... quantificational structure is part of the

objective structure of the world' (2011: 188). But now we have a plausible explanation of why existential quantification may be necessary with respect to the formulation of any serious theory which doesn't rely on the idea that quantificational structure is part of the objective structure of the world. In other words, the 'defeasible reason' has been defeated by a pragmatic explanation.

Thus, however we interpret 'indispensable' in Sider's 'best argument' against deflationism, the pragmatist has reasons for rejecting either (1p) or (2p) of the argument. Given that both premises are required to secure Sider's conclusion, it follows that however we read 'indispensable', the ontological pragmatist can now safely walk away from (3c) and walk away from ontological realism.

6.6   More metaphysics, totality, and Goodmania

To finish this chapter, I'll present three possible objections on Sider's behalf. However, in each case, I'll argue that these can be avoided by showing that they place an unnecessary metaphysical burden on the pragmatist.

6.6.1   The more metaphysics objection

One prominent response Sider makes against deflationists who refuse to accept that the world has quantificational structure is that the deflationist *must nevertheless be engaged in metaphysics*. Here's how he puts it:

> [M]y crucial claim has been that a sufficient condition for substantivity is being cast in joint-carving terms. An important consequence is that metametaphysical critiques are distinctively metaphysical in nature. Whether they are correct is a *function of the facts* — a function of what joints reality in fact has. One cannot do metametaphysics simply by examining metaphysical language and reasoning. For given the sufficient condition, in order to claim that a question is non-substantive, one must must claim that it is not cast in purely joint-carving terms, and such a claim cannot be supported solely by reflecting on language and reasoning ... one must engage directly in metaphysics. (2011: 83)

In effect, Sider's claim is that rejecting ontological realism requires saying something about what joints reality in fact has —- in this case, *denying* that the world has quantificational structure, which looks like a metaphysical claim.

Recall that an advantage of my response is that it is done in *in wholly pragmatist terms* without the need for any distinctively metaphysical arguments for or against the idea that the world has quantificational structure. In effect, the pragmatist's response to Sider will be that 'quantificational structure' is *not one of her words*. She can therefore *neither affirm nor deny* that the world comes equipped with a distinguished quantificational structure, for she doesn't think we need the notion of quantificational structure at all.

Sider anticipates this kind of response:

> [The pragmatist's] metametaphysical critiques could not be wholly ameta-physical. For imagine a metaphysician who shrugs off a purely methodological or linguistic critique by saying that *she* is a realist about carving at the joints … Surely the [pragmatist] couldn't simply concede these claims … So even the [pragmatist] should agree that *given* the realism about structure, meta-physics would make sense, both methodologically and linguistically. So the [pragmatist] must oppose the metaphysician's claims. (2011: 83)

Sider's response assumes that, because the pragmatist claims that the notion of quantifi-cational structure is senseless — or otherwise shouldn't be taken seriously — she'll have *no way of arguing against* the ontological realist and should therefore accept that, given realism about structure, metaphysics would make sense.

But the pragmatist doesn't need to concede this. For there is a well worn style of argument which rejects a given position, not because the *denial* of the position is true, but rather because the whole way in which the debate is set up rests on a false presupposition. Consider, for example, how the moral quasi-realist rejects both realism and anti-realism about morality, in their traditional forms. The quasi-realist rejects moral realism because she thinks the whole debate relies on a faulty assumption: the assumption that moral statements serve the function of representing moral facts, rather than expressing our attitudes. Since both realism and anti-realism about morality assume that moral statements are representational, in rejecting this assumption, the quasi-realist rejects the whole way in which the debate is conducted, rejecting both sides of the debate. This constitutes an

argument against the realist as much as the anti-realist. It is therefore a way of rejecting realism without also having to endorse anti-realism.

The same style of argument is open to the ontological pragmatist. For, as I argued, the function of quantificational claims isn't to carve the world at the quantificational joints. Instead, it is to allow us to reason about and communicate commitments to facts about particular objects when we have no way of talking about them singly. Given that the debate over whether or not quantifiers either carve or do not carve at the joints presupposes that the quantifiers are there to carve at all, the ontological pragmatist, in rejecting this assumption, can thereby reject both sides of the debate. For she'll claim that the whole way in which the debate about quantificational structure is framed rests on a mistake. Again, this is an argument against the realist about quantificational structure as much as it is against the denial that there is such structure. It is therefore a way of rejecting ontological realism without also having to deny that the world has quantificational structure.

6.6.2   The objection from totality

My response to Sider relies on the claim that, if we were finite, omniscient gods, then we'd be able to pick out all objects singly without missing any information we'd want to express in our theories. However, it might be argued that quantification cannot be dispensed with in this way without out missing out on a *further fact* about the world. For example, suppose we wanted to provide a *total* description of reality. Then, even if we were gods, by the time we picked out each object particularly and without, we'll also have to say that, for each object we've picked out, those are *all of the things there are*. But this further fact — that this is everything there is — unavoidably makes use of quantification. Therefore, it is not true that we wouldn't be missing out on any important information.[21]

In response, the ontological pragmatist can *deny the need to provide a total description of reality*. Why? Because providing a total description of reality would seem to only be the goal of mainstream ontology and metaphysics more generally and the pragmatist turns her back on these projects. Remember, in responding to Sider's indispensability argument, I'm *not* playing along with him in attempting construct a total metaphysical theory. My pragmatist can thus remain a quietist about what the total inventory of the world may

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[21]This argument is not from Sider but has been suggested to me by Hugh Mellor and Dan Brigham.

or may not look like. And, in fact, there are grounds for thinking that, for a pragmatist, providing a *total* inventory, in this sense, is misguided.

To see this, we can re-appropriate an argument made by Huw Price to the effect that the pragmatist's commitment to functional pluralism is incompatible with a *metaphysical* conception of the world as *everything that is the case*. Here's the argument. Suppose, with Wittgenstein (1922) and Armstrong (1993), you are the kind of metaphysician who thinks of the *world* as the totality of facts or states of affairs. Then, if you wanted to provide a complete description of the world, you'd have to list each fact and then state that those are *all* the facts — '*everything* that is the case', in Wittgenstein's phrase. But Price argues that this totalising move is ruled out by functional pluralism. Here's why:

> [A]ll sides will agree, presumably, that what facts *we take there to be* depends on what kinds of assertoric claims our language equips us to make (as well as on what particular claims, of each kind, we take to be true). But functional pluralism about kinds of assertion seems to stand squarely in the path of any sort of metaphysical closure, or totality. If there is in principle no totality of possible kinds — no set of all possible functionally distinct assertoric language games — then nor can there be any totality of all the facts, apparently. (2013: 54)

Thus, according to Price, a commitment to functional pluralism about different kinds of assertions, entails that one could never list each fact and then be able to stand back and say: those are all the facts. This is because (a) what facts we take there to be depends on what kinds of assertoric claims we can make. For example, we only have a handle on moral facts and mathematical facts insofar as we are able to make moral and mathematical assertions. However, (b) the different *kinds* of assertoric claims we are prepared to make will always be *open ended*, given functional pluralism. For there are no principled reasons to think that we won't end up making *different* kinds of assertoric claims in the future allowing us to say that there are these other kinds of facts. Thus, for every set of kinds of assertoric claims, it will always in principle be possible to extend this set by another kind at a later date. Therefore, functional pluralism looks incompatible with any kind of metaphysical closure.

In chapter 3, I argued that the *ontological* pragmatist can be seen as a functional pluralist in Price's sense. For the ontological pragmatist, the project will be less about explaining the

different functions of kinds of *assertion*, and more about explaining the different functions of kinds of *terms*. Therefore, the ontological pragmatist can use Price's argument against the idea that we could ever identify a fixed totality of *facts* to make an analogous argument against the idea that we could ever identify a fixed totality of *objects*.

Here's the argument. Consider the fact that (a) the ontological pragmatist will think that what kinds of objects we take there to be will always be dependent upon what kinds of terms our language allows us to apply. Thus the idea of a number or of a composite object derives from our ability to apply numerical and composite object terms. This is entailed by the pragmatist's commitment to linguistic priority, which amounts to the rejection of the idea that we should theorise about objects directly, independent of our linguistic practices.

But now the ontological pragmatist will also be committed to the idea that (b) the different kinds of terms we are willing to apply is always *open ended*. For there are no principled reasons for thinking that we won't develop new linguistic practices later on by applying new kinds of terms in new practically useful ways. Thus, for any given set of kinds of objects, there will always be the possibility that our language may equip us with a different kind of term and therefore with ability to say that there is a new kind of object later on. And this cuts us off from the idea that we would ever be in a position to talk about a fixed totality of objects.[22]

6.6.3   What's so bad about Goodmania?

Let's finish with another argument from Sider against the idea that the pragmatist can provide an anti-metaphysical critique of his position. The argument takes the form of a dilemma arising from how one might answer the question of whether or not *predicates* carve at the joints. Here Sider argues that someone who rejects talk of objective quantificational structure faces two choices:

> Horn 1: no predicates carve at the joints. Here only two unattractive
> options seem open. One is Goodmania: all talk of objective joints in reality
> is simply mistaken. The other is reverting to the pipe dream — hoping that
> some nonquantificational fundamental language might one day be discov-

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[22]See Rayo (2013: 27 - 33) for a similar kind of argument against absolute generality.

ered which would allow one to recover some sort of inegalitarian distinction over predicates, even though the predicates don't carve at the joints.

Horn 2 is the more likely resting place: some predicates *do* carve at the joints, even though the quantifiers don't. But this is hard to square with purity (section 7.2). If some predicate F carves at the joints, then surely some sentences S containing F is a fundamental truth. But S must surely also contain either a name or a quantifier. Given [ontological pragmatism], quantifiers don't carve at the joints, and surely names don't either. So S, a fundamental truth, contains an expression which doesn't carve at the joints — a violation of purity. (2011: 186 - 187)

How might the pragmatist respond? Actually, the pragmatist will respond by accepting what Sider likely takes to be the most *unattractive* option: accepting the aspect of Horn 1 which claims that all talk of objective joints is mistaken. This is because, for a pragmatist, our explanation of the meanings of predicates, quantifiers, terms and other linguistic expressions is to be explained in terms of how we use such expressions and the practical benefits associated with such uses. Pragmatists don't need the notion of 'objective joints in reality' to make the kinds of explanations she wants to make.

What's so wrong with this 'Goodmanian' response? Here are Sider's two central worries:

> [T]he most significant fallout from Goodmania, to my mind, arises from structure's connections with epistemic virtue and with objectivity.
>
> Epistemic virtue: joint-carving languages and beliefs are better. If structure is subjective, so is this betterness. This would be a disaster ... If there is no sense in which the physical truths are objectively better than the scrambled truths, beyond the fact that they are propositions we happen to have expressed, then the postmodernist forces of darkness have won.
>
> Objectivity: whether questions are substantive, non-conventional, objective, and so on, depends on whether they are phrased in terms which carve at the joints. Given subjectivism about structure, we would have subjectivism about substantivity, depth, conventionality, and objectivity. No discourse would be objectively objective. Another disaster. (2011: 65)

Thus, for Sider, Goodmania entails a loss of epistemic virtue and objectivity. I'll respond to both cases, starting with epistemic virtue.

Here Sider claims that, somehow, our beliefs would be less valuable if there were no objective structure. But this isn't clear. To take an example from Kraut and Scharp (2015: 25), many people believe that it is better to help an elderly person cross the street than it is to punch a child in the face. Yet no one thinks this belief carves perfectly at the joints. Ordinary speakers certainly don't. Perhaps, if we thought that such a belief carved nature at the joints, then we would care even more about it. But even if that's true, it wouldn't entail that people should no longer care about their beliefs. So there is no sense in which the post-modern forces of darkness have won. The amount of value we give to our beliefs in ordinary life will do just fine.

A similar response can be made with respect to Sider's worry about objectivity. According to Sider, it would be a 'disaster' if it turned out that no discourse was 'objectively objective'. By 'objectively objective' Sider means not only that a sentence like 'There is an electron' is true independently of us, but also that the meaning of 'There is an election' carves at the joints. Thus, not only is the sentence objectively true in the sense of being a mind-independently true, but it is also objectively objective because the *meaning* of the sentence reflects facts about the world's objective structure.

In response, it isn't at all clear why it would be a bad thing if truth were merely objective. Most people think that the merely objective truth of 'Electrons exist' is all they need to think of the world as being sufficiently mind-independent enough to allow us to get what we want and navigate the world in the way we want to. Presumably, most people have no idea what it is for a proposition to be objectively objective, in Sider's sense. Perhaps the notion of objective structure can make things *more* objective than we normally take them to be. But, again, it isn't at all clear that living with the usual forms of objectivity would be a disaster. For these reasons, Goodmania doesn't seem that bad after all.

6.7   Conclusions

To summarise, the key claims I've made are the following.

1. I argued that two of the previous responses to Sider's indispensability argument
for ontological realism were wanting. Arguing that quantification can be dispensed

with looked too much like metaphysics, but walking away from the argument left open a significant explanatory challenge regarding the indispensability of quantification.

2. I then argued that the pragmatist could respond to the explanatory challenge in her own terms by showing that quantification is pragmatically indispensable for beings who have limitations of finitude and ignorance. Such an account of the indispensability of quantification undercut Sider's indispensability argument.

3. Finally, I considered three possible objections on Sider's behalf, but argued that each one placed an unnecessary metaphysical burden on the pragmatist and could be avoided.

For these reasons, I hope I've been able to display how the ontological pragmatist can explain the indispensability of quantification and so be able to undercut one of the most prominent attempts to revive mainstream ontology. Thus the pragmatist, despite Sider's efforts, is still able to keep the lid on metaphysics.

7

Conclusion

To conclude this thesis, I'll do two things. First, I'll highlight its main achievements, chapter by chapter. Second, I'll explore some possible routes for further research by highlighting the fact that undertaking this project has opened the door to a number of potentially fruitful further philosophical projects — for both pragmatists and easy ontologists alike. I'll start by describing the achievements of each chapter.

1. *The Metaontological Landscape*. The goal of the first major chapter was to lay out the metaontological landscape within which my project took place. After defining terms like 'ontology' and 'metaontology', I proposed a framework within which we could clearly see the battle lines drawn between two metaontological camps — one being the main ally of the pragmatist position defended here, the other the main enemy.

The enemy was the dominant conception of ontology in analytic metaphysics — a view I called 'mainstream ontology'. Using textual and argumentative evidence, I defined this position in terms of four theses: methodology, theroeticity, materiality, and depth. I then described the pragmatist's deflationary ally — easy ontology — by going over Carnap's and Thomasson's respective conceptions of it and highlighting the fact that these deflationary positions seek to undermine each of the mainstream ontologist's central theses.

Finally, I provided a description of the kind of pragmatism at the center of this work and proposed some motivations and reasons for optimism concerning the project of bring-

ing pragmatism and easy ontology *together*.

2. *How to be an Ontological Pragmatist.* The goal of this chapter was to develop a self-avowed pragmatist metaontology — the view I call 'ontological pragmatism'. To do this, I provided myself with two broad tasks. First, to detail what pragmatists might say about answering questions about the existence of entities like numbers and composite ordinary objects. Second, to argue that the view allows the pragmatist to say that mainstream ontological debates rest on a mistake.

My strategy for completing the first task was to argue that we can construct a pragmatist account of how to answer existence questions by deploying the resources of Thomasson's 'easy ontology'. After presenting a detailed account of what it is to be a pragmatist about a given subject matter, I argued that the crucial features of Thomasson's account — her account of the meaning of 'exists' and her conception of an 'application condition' for a term —- presupposed many pragmatist themes. I argued that pragmatists were entitled to take advantage of these features by deploying them in the construction of explanations of meaning in terms of use (EMUs) for numerical singular terms, composite ordinary object terms, and quantifiers like 'exists'.

The upshot was that pragmatists could now be entitled to the idea that existence questions are very easy to answer. To make this clear, I argued that pragmatists could take advantage of a 'Carnapian' argument against the legitimacy of mainstream ontological debates. In this way, by the end of the chapter, I presented the workings of a deflationary metaontological position worthy of the pragmatist name.

3. *Pragmatism's Plausibility.* The goal of this chapter was to lend plausibility to ontological pragmatism. To do this, I argued that *prima facie* objections to ontological pragmatism can be avoided and that there are motivations for endorsing the view over mainstream ontology.

In more detail, I proposed three motivations for ontological pragmatism. First, that ontological pragmatism allows us to dissolve worries associated with the 'placement problems' in a way that is both naturalistic and allows us to be realists about the hard to place objects without any of the corresponding metaphysical and epistemological worries. Second, I argued that ontological pragmatism can lay claim to a more straightforward and

tractable epistemology for handling existence questions than the mainstream ontologist. Finally, I argued that ontological pragmatism was a more *prima facie* desirable view in being more charitable to our actual practice of affirming and denying existence claims.

In addition, I defended ontological pragmatism from a variety of objections. I discussed five: (1) that ontological pragmatism leads to an implausible linguistic idealism; (2) that ontological pragmatism doesn't sufficiently distinguish having evidence for the existence of something from it being objectively correct to say that something exists; (3) that mainstream ontological inquiry can always trump the conceptual truths pragmatists rely on; (4) that pragmatists have no account of when an expression counts as a *term* and thereby risk either being unable to affirm the existence of things like numbers and tables or having to affirm the existence of entities which surely don't exist; and (5) that there are some discourses outside the pragmatist's reach. In each case, I argued the ontological pragmatist had the resources to respond to each of these challenges. In addition, responding to these challenges helped us learn more about ontological pragmatism itself.

4. *Does Fictionalism Rest Upon a Mistake?*. The goal of this chapter was to apply ontological pragmatism to debates about the existence of numbers by arguing that it is more plausible than one of its main rivals: hermeneutic fictionalism. While the views are similar, I claimed that they diverged from each other in following sense: where the pragmatist claims that the best interpretation of our use of mathematical language vindicates a deflationary realism about the existence of numbers, the hermeneutic fictionalist uses a similar interpretation to argue that ordinary speakers merely *pretend* to be committed to the existence of numbers.

I then argued for ontological pragmatism over hermeneutic fictionalism. To do this, I argued that the pragmatist can respond to three different motivations in favour of fictionalism. First, against the fictionalist, I argued that there are more *disanologies* than analogies between our use of mathematical terms and overtly fictional uses of language. Second, I argued that the pragmatist can respond just as well to two puzzle cases that fictionalists appealed to in motivating their view. In fact, I argued that the only motivation for fictionalism over pragmatism, in these cases, relies on the unjustified assumption that the existence of numbers can only be established with a sufficiently metaphysical argument. Finally, I argued that both the pragmatist and the fictionalist can explain the

indispensability or mathematics to the natural sciences as being a product of contingent human limitations. However, against the ficitonalist, I argued that this does not entail that there are no numbers. On the contrary, it highlights the irrelevance of metaphysics in establishing the existence of numbers.

In sum, the result was that the pragmatist can do just as well — and in some cases, much better — than the fictionalist in accounting for our actual mathematical practice. This, I argued, opens the door for pragmatism to be taken seriously in debates in the philosophy of mathematics.

5. *Quantifying without Carving.* The goal of this final chapter was to respond to Sider's (2009; 2011) influential idea there is a privileged meaning of 'exists' which 'carves perfectly at the world's quantificational joints', allowing mainstream ontological debates to be revived in the face of deflationary alternatives. I focused on responding to, what Sider takes to be, the 'best argument' (2011: 188) for the idea that there is such a privileged meaning of the existential quantifier. As we saw, this argument took the form of an *indispensability* argument for the claim that quantifiers carve perfectly at the world's joints.

To respond, I compared my response to two other possible strategies. First, I considered the idea that the pragmatist may respond to Sider's argument by showing how quantification is *dispensable* to our best theories. While this may be true, I suggested that if the ontological pragmatist responded to Sider in this way, she could be accused of engaging in unwanted metaphysics. Second, I considered the idea that the pragmatist might walk away from the indispensability argument, given that it is a piece of unwanted metaphysics. However, I argued that, while this may be true as well, it would leave the ontological pragmatist without an explanation of why it is that we find quantification so indispensable to our theories.

I then provided my own response: to argue, in pragmatist terms, that there are good reasons for thinking that the use of quantifiers *is* indispensable but only because it is *pragmatically* indispensable to us as theorisers. To make the argument, I described how making existentially quantified assertions allowed us to communicate information about objects that it would otherwise be impossible to express, given that we are constrained by having finite expressive capacities and are often unaware of how to pick out particular objects. I argued that creatures who weren't limited in these ways may have no indispensable need

to employ existential quantification. Given this explanation of the indispensability of quantification, I argued that the ontological pragmatist could safely walk away from the idea that quantifiers carve at the joints. I then responded to three possible responses that Sider might have to my argument.

So, where do we go from here? One of the most attractive features of taking on this project concerns the new doors now open to both pragmatists and easy ontologists alike. Let's start with pragmatists. One of the significant results of bringing pragmatism and easy ontology together has been that it has allowed me to formulate pragmatist explanations of our talk of mathematics and composite ordinary objects. So far, pragmatists haven't done much work in these areas. Thus, by having formulated how to be a pragmatist about these parts of our discourse, I've put these positions on the table for some potentially fruitful further exploration.

One way to further explore positions like these is by drawing lines between them and other well worked out positions which haven't traditionally been associated with pragmatism. Take the case of mathematics. While I've already drawn lines between pragmatism and Yablo's hermeneutic fictionalism, another connection to be made concerns the line between pragmatism and *neo-Fregean* accounts of mathematics (Wright, 1983; Hale, 1988; Hale and Wright, 2001). The connection here is the following. As Thomasson convincingly argues, 'neo-Fregeans' themselves can be seen as offering "easy' arguments for the existence of numbers' (2015: 133). For example, neo-Fregeans rely on, what is often called, 'Hume's Principle':

> The number of ns = the number of ms iff the ns and the ms are equinumerous,

to implicitly define the meanings of numerical terms. This allows them to provide, what look like, *easy arguments* for the existence of numbers. For example, it allows them to move from a uncontroversial claim like 'My fingers and toes are equinumerous' to the conceptual truth that 'The number of my fingers is equal to the number of my toes' in which two numerical singular terms figure in a true identity statement. This, according to neo-Fregeans, allows them to conclude that the numerical singular terms must refer and so numbers must exist. Since neo-Fregeans are here moving from an uncontroversial claim, to a conceptual truth, to an ontological conclusion, this looks strikingly similar to Thomasson's easy ontology. Furthermore, because I've argued that Thomasson's easy

ontology can be seen as a kind of pragmatism, the prospects look good for drawing some interesting connections between pragmatism and neo-Fregeanism. In effect, this would allow us to see that pragmatism about mathematics is much closer to established views than one might have thought.

In addition, as Thomasson claims 'a second version of an easy route to answering existence questions has been developed by Stephen Schiffer' for entities as wide-ranging as 'propositions, properties, events, states, and fictional characters' (2015: 134). According to Schiffer (2003), we can grant the existence of these entities by relying on the idea of a 'pleonastic' inference: an inference in which we are allowed to deduce a statement about an entity of kind F from a statement which involves no reference to Fs. For example, Schiffer claims that we can make a pleonastic inference from 'Alice was born in November' which doesn't involve reference to events, to the claim 'Alice's birth — an event — occurred in November'. From there, according to Schiffer, we are licensed to conclude that there are such things as events. Again, this style of argument is basically the same as Thomasson's. Since there are strong links between Thomasson's easy ontology and pragmatism, pragmatists should be able to avail themselves of the resources of Schiffer's way of handling existence claims for events, propositions, fictional characters, and other entities.

With the exception of Sellars' (1960, 1962, 1963) intriguing 'meta-linguistic' account of our use of talk of propositions and properties, pragmatists haven't had much to say in these areas.[1] But since there are close ties between Schiffer's view and Thomasson's easy ontology, and since Thomasson's easy ontology can be assimilated to a kind of pragmatism, the prospects now look good for pragmatist accounts of events, states, fictional characters, propositions, and properties. Thus, by further drawing out the connections between pragmatism and other forms of easy ontology, pragmatists will be able to make new strides in areas where few steps have been taken.

Likewise, by having developed and explored ontological pragmatism, easy ontologists may now be able to more effectively explore areas where pragmatists have had much to say, but where deflationary metaontologists have said little. For example, pragmatist positions in metaethics like quasi-realism and other expressivist positions might provide

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[1]See Kraut (2010) for an interpretation of Sellars' work here that aligns very nicely with the kind of ontological pragmatism I've been defending.

the easy ontologist with convincing stories about the function of moral vocabulary — for example, that moral statements serve to express attitudes of approval and disapproval, rather than represent some metaphysical feature of reality — which they can then use in developing easy accounts of moral properties. So, for example, having provided an expressivist explanation of when it is appropriate to say that torturing children is wrong, we can then move on to claim that torturing children has the property of being wrong, and so there exist moral properties. The advantage of developing ontological pragmatism here is that we may now be more clearly able to draw out the connections between expressivist or pragmatists accounts of moral statements and the existence of moral properties by employing an equally pragmatist account of the use of property terms and existence claims. In this way easy ontologists may be able to use ontological pragmatism to cover new ground in metaethics.

Another area in which pragmatists have had much to say, but where metaontological deflationists have had less, concerns the casual and other modalities. For example, Huw Price (2001; 2007) is well known for his pragmatist account of causation and, following from the work of Sellars (1948a), Robert Brandom (2008) has developed an important pragmatist account of nomic laws and of possibility and necessity more generally. By employing ontological pragmatism and drawing connections between these pragmatist accounts of the modalities, we may be able to build easy arguments for the existence of causal relations, natural laws, and possible worlds. In fact, Thomasson (2007b) has already made inroads here by developing her own pragmatist account of metaphysical modality. Thus, by more closely tying pragmatism to easy ontology, we may be able to more smoothly draw out the details in moving from pragmatist accounts of the modalities to the existence of casual relations, natural laws, and possible worlds.

Therefore, by putting ontological pragmatism on the table, a number of new doors have been opened. Of course, I've merely shown you the doors, I haven't described what it would be like to walk through them. But the advantage of moving on from here, and stepping through each new door, will be not only the ability to *close* the door on traditional metaphysics; it will also present the possibility of developing a detailed global pragmatism, unified by a metaontology of its very own.

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