QUINEAN META-ONTOLOGY AND FICTIONALISM

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by

Mitchell O. Stokes, B.S., M.S., M.A., M.A.

______________________________
Alvin Plantinga, Director

______________________________
Peter van Inwagen, Director

Graduate Program in Philosophy
Notre Dame, Indiana
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Abstract
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What is there? This is the ontological question. To ask the ontological question is to engage in ontology. One’s views about what the question means and how to go about answering it is one’s meta-ontology. In this dissertation a particular meta-ontology will be in view: Quine’s. Call it ‘Quinean meta-ontology.’ But there is confusion over how Quine intended ontology to be done, enough confusion to warrant a very close look at his meta-ontology.

One of the primary goals of this dissertation then is to clearly present Quinean meta-ontology, showing just what it is—and isn’t. Another goal is to show how Quinean meta-ontology is used, particularly in arguments for the existence of abstract objects.

So after carefully presenting Quinean meta-ontology in a way that shows it’s key features as well as merely putative features, I provide evidence that the arguments for platonism which use Quinean meta-ontology are really indispensability-style arguments. I do this by showing how both Peter van Inwagen’s argument for properties and Hilary Putnam’s argument for mathematical objects are species of the same genus.
Once this is done, the philosophical geography surrounding Quinean meta-ontology (the meta-ontology proper as well as its use in arguments for platonism) should be apparent. Given this better view, I will then address four important objections to both Quinean meta-ontology and the indispensability-style argument for abstracta. Most of these objections, it turns out, focus on the uniquely Quinean views of existence and quantification. And all of them focus on particularly subtle aspects of language and so suggest that Quinean meta-ontology may just be too heavy-handed when it comes to interpreting our sentences.

In the last chapter, I make a proposal for future work, work for a nominalism that takes the subtleties of natural language quite seriously. I propose that a type of fictionalism might be the answer. Such a view needs a lot of attention though and so I point out four of the most salient problems for fictionalism, also alluding to where the solutions to these problems lay.
DEDICATION

For Christine, Shane, Summer, Jared, and little Elena.
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I had always heard it said that, during graduate school, most of one’s learning takes place in conversation with other graduate students. I have empirical evidence suggesting that this is very nearly true; much learning can take place among one’s colleagues. Two fellow students—and better, two very good friends—were of particular help to me, philosophically. The first, E.J. Coffman, always astounded me with his encyclopedic knowledge and humble, teachable spirit. An unusual combination to be sure. The second, Chris Green, helped me keep my views on the straight and narrow (he knows what I mean). I am grateful for both of these men.

But most of all, it is my wife, Christine, who deserves the most thanks. God has blessed me beyond measure through her. She’s always been the loudest in my little cheering section, encouraging me to stay the course yet never allowing me to become complacent.
The question on which this dissertation focuses is whether there are abstract objects. In this sense the dissertation is a very small part of the very old debate over the existence of universals. This debate has its beginning, of course, in the writings of Plato and reached its peak during the Middle Ages, subsequently declining in importance until only recently. It is again attracting attention due in large part to W. V. Quine. The present form of the debate, however, is a bit different from that of its medieval glory days. Most notably, today’s debate is broader in scope. Rather than focusing only on universals, there is interest in abstract objects generally, objects like numbers, propositions, sets, and possible worlds.

I doubt that there are abstract objects—universals or otherwise. My primary reason for so doubting is twofold: (1) if such objects exist then this fact would contradict other things I strongly believe and (2) I find the best kind of argument—at least I think it’s the best kind of argument—to be too weak to overcome those beliefs.

In any case, I’ll call the argument for abstractism in question (‘abstractism’ being the view that there are abstract objects) the ontological indispensability argument for abstractism (OIAA). This
argument is based on a strategy developed by Quine for answering the “ontological question” _What is there?_ (or better, _What should I believe there is?_). Although there may be other good arguments for the existence of abstract objects, this dissertation is concerned with the OIAA only.

I must admit that I’ve always been suspicious of the OIAA. However, it’s difficult to put one’s finger on what makes it seem suspicious, at least with any degree of precision. And once one gets past the “mere suspicion” stage, it’s still not easy to counter the challenges it presents to those who wish to avoid its conclusion (the conclusion that it is more plausible than not that there are abstract objects; I will call those people who wish to avoid this conclusion _concretists_). In other words, it’s a very good argument. So the argument raises some real difficulties for me—and for anyone who does not believe in abstract objects.

Furthermore, I agree with most of the essentials of Quine’s strategy for answering the ontological question, the strategy upon which the OIAA is built (even if not with the OIAA itself). Overall, it’s actually a quite simple strategy: in large part it suggests merely that I determine what objects must exist in order for my beliefs to be true.¹

But there is a lot of confusion over the way Quine says the ontological question should be answered. Unnecessary confusion, I think. This confusion provides one of the themes of my dissertation: that

¹Notice that I have used the term ‘strategy’. By this I mean to include certain theses or propositions in addition to a plan for _doing_ something.
of explicating what is often and perhaps inaccurately called Quine’s “criterion of ontological commitment.” I will try to carefully present his “criterion” and explain its use in ontological debates; that is, its use in the OIAA. Canvassing the most common and interesting objections to the “criterion” and to the OIAA will go a long way in clearing the bramble surrounding the debate over what there is. In the final chapter, I suggest a direction in which further research might pay off—research that might result in an interesting and plausible answer to the ontological question.

In this chapter, however, I merely intend to set us on a proper course for the remaining chapters. I’ll begin by explaining what (I think) metaphysics is and how the subdiscipline of ontology is related to it. My reason for discussing such basic issues is that one of the most unhelpful attitudes in philosophy is the belief that it’s obvious to other philosophers what one’s own conception of the discipline is and what its goals are. To believe this is to just ask for trouble. These are contentious philosophical issues themselves.

So I want to avoid making this mistake as far as I’m able. In this chapter then—after characterizing the disciplinary genus and species—I briefly discuss methodological issues regarding ontology, giving an overview of the Quinean method on which the remaining chapters will focus. Following this overview I discuss some of my own reasons for not believing in abstract objects, which I hope will

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2 We can already see that there is a difference between Quine’s strategy and its use in arguments for particular kinds of objects. This distinction should become clearer as we go along.
clarify some of the important issues involved in the current debate. Included in this discussion will be a brief survey of what is usually meant by ‘abstract object’. Finally, at the end of the chapter, I provide a short preview of the coming attractions to be found in Chapters 2 through 5.

1.1 Metaphysics and Ontology

So then, back to basics. Very generally speaking, metaphysicians try to determine what is ultimately real, in contrast to what is only apparently real.\(^3\) Of course to many naysayers, trying to determine what is *ultimately* real might seem overly optimistic, to put it euphemistically. We can do no better, they say, than to determine what is apparently real. Granted. So let us admit that it is more accurate to say that the metaphysician is only trying to determine what is apparently real *upon greater reflection*—as opposed to what is apparently real upon some lesser amount of reflection. I can’t specify ‘greater’ and ‘lesser’ in any real detail, of course—that will just depend on the context—but I expect that you get my general meaning. In any event, I will still interchange ‘apparently real upon greater reflection’ with ‘ultimately real’, ‘actually real’, ‘really real’ and the like. ‘Apparently real’ will be used when I mean something like ‘apparently real upon some (unspecified) lesser amount of reflection’.

\(^3\)This description of the metaphysician’s job is the one that I find the most attractive and is presented in greater detail and clarity in Peter van Inwagen’s introduction to his *van Inwagen 2002.*
What typically constitutes that which we believe to be apparently real are ordinary prephilosophical beliefs. Metaphysical inquiry, then,—indeed philosophical inquiry in general—can be characterized as being generated when we discover upon reflection that an ordinary prephilosophical belief raises heretofore undetected conflicts with other of our beliefs. And regardless of whether the beliefs in question really are prephilosophical, they are usually beliefs that are highly plausible; and so the difficulty. Otherwise, we could easily discard one or more of these beliefs and regain our apparent consistency. One of the goals of philosophical inquiry, then,—and metaphysics is no exception—is to correct our seemingly conflicting belief systems while giving up as few (very plausible) beliefs as possible. To be sure, some belief(s) will have to go; there’s always a doxastic price to pay. In this sense philosophy is in large part a matter of economics.

Let me now give two—albeit oversimplified—examples of metaphysical inquiries in which metaphysicians try to determine what is ultimately real as opposed to what is apparently real. First example: Some metaphysicians are worried that although we ordinarily appear to be free, the belief that we are free seems to conflict with a number

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4 Though the details will vary, Colin McGinn gives a nice characterization of this process: “Common sense commits itself to various assertions about the world, including the mind. We acquire these ordinary beliefs at an early age and we take them for granted in everyday life; they probably have an innate basis and belong to a specialized component of our cognitive equipment. Then, because we are also self-reflective creatures, we turn back on our commonsense assumptions and find them to be more puzzling and problematic than we had bargained for. The concepts we habitually employ raise the kinds of disturbing questions we call ‘philosophical’.” (McGinn 1993, p. 8)
of other strongly held beliefs—most notably our belief in deterministic natural laws. So perhaps, say these metaphysicians, our freedom is merely apparent. Perhaps all human behavior is “determined,” all of it entirely in accord with the laws of nature. And maybe, they continue, this precludes us from being free. Such metaphysicians try to decide whether they should believe that we are actually free, and not merely apparently so.

Let us take as our second example one nearer the topic of this dissertation. There seem to be all sorts of objects: chairs, rocks, dogs, colors, persons, minds, propositions, and numbers, to name a few. We come to philosophy believing in, or at least speaking of, such things. But are there really these things? When we ask, for example, just what a person is, we might find that our answer raises some thorny ethical problems. Metaphysicians who ask whether there are these things—call these philosophers ontologists (and their metaphysical subdiscipline ontology)—are concerned with whether certain things that seem to exist actually exist. In other words, the ontologist begins with her answer to the question, What things are there apparently? and attempts to answer the different question, What things are there, really? Let us call an ontologist’s official list or catalog of things she believes really do exist her ontology (used as a count noun as opposed to a mass noun as we used it above).

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5 Of course, objects may appear to exist as a result of other philosophical inquiries and not just according to our prephilosophical beliefs.

6 As we shall see, philosophers may need to expend great effort answering even this question.
So then, for objects of kind \( x \), ontologists ask *Do x’s exist?* And they cannot entirely avoid the question, *What are x’s (supposed to be) like?* We’ll need some idea of what x’s are like—however vague—in order to intelligibly ask whether there are such things.\(^7\) In this dissertation I will address specific instances of both these questions—namely, I will ask the questions *Do abstract objects exist?*\(^8\) and *What are abstract objects (supposed to be) like?* Much of this dissertation then is an exercise in ontology.\(^9\)

1.2 The Ontological Question and Meta-Ontology

As I said earlier, the recent renaissance of ontology was begun in large part by the late W. V. Quine. At least it began in earnest with him. Here is his famous formulation of what he calls 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 there is what there is. There remains room for disagreement over cases; and so the issue has stayed alive down the centuries.\(^{10}\)

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\(^7\)Quine says, for example, that we cannot “determine separately what to talk about and what to say about it.” (Quine 1960, p. 38)

\(^8\)The question is really *Should I believe in abstract objects?*

\(^9\)Of course there philosophers who will say that ‘ontology’ is closely related to ‘futility’ and so this dissertation is an exercise in that too. Although I have sympathy for objections to certain types of metaphysics—and certain types of ontology in particular—I don’t fully agree with these philosophers.

\(^{10}\)Quine 1963a, p. 1.
Quine believed, we have just seen, that the ontological problem (I will also call it the ontological question)—which I not-so-elegantly characterized earlier as “whether certain things that seem to exist actually exist”—is a simple one. Part of what Quine meant of course is that this problem can be formulated simply, “in three Anglo-Saxon monosyllables.” But more importantly, he points out that despite its simple formulation, the problem is remarkably resistant to any single solution upon which most philosophers will agree, which is one of the reasons it’s a philosophical problem.

Why is there no consensus? One of the main reasons is that the ontological question can be—and has been—given more than one interpretation. Not everyone agrees on the meaning of the question. Although I’ll address this problem of interpretation in slightly more detail in Chapter 2, let me briefly describe one source of disagreement over the ontological question’s meaning. This source is disagreement over the meaning(s) of ‘is’ and ‘exists’. On the one hand, there are those philosophers who agree with ordinary usage, that the question What is there? means the same thing as What exists?; ‘being’ just means ‘existence’. But there are other philosophers who distinguish between being and existence. What is important to see now is that if you are one of those philosophers who believes that being just is existence, you will likely answer the ontological question differently from the way you would if you made the being/existence distinction. That is, you will likely have a different ontology—a different official list of things there are—from those who make the
distinction (these latter philosophers will have an additional list: a list of what exists).\footnote{As I alluded to, I will assess some of the arguments for this distinction in Chapter 2. I will generally, however, use phrases like 'there are' and 'there exist' as synonyms.}

But even if the ontological question were not ambiguous, there is a further (but related) difficulty preventing ontologists from agreeing on an answer. Namely, they don’t agree on how to answer it. Again, this difficulty will be addressed in considerable detail later. For now I want to make some general methodological and terminological points. The method or strategy that a philosopher uses to answer the ontological question\footnote{This will also include the philosopher’s interpretation of the question.} constitutes what Peter van Inwagen calls that philosopher’s meta-ontology. And let us call the corresponding second-order question of how the ontological question itself is to be interpreted and answered, the meta-ontological question. A philosopher’s answer to the meta-ontological question is her meta-ontology. Her meta-ontology specifies how to do ontology. Naturally enough, philosophers disagree over the way ontology should be done—if done at all; they have different meta-ontologies.

1.3 Quinean Meta-Ontology and the Ontological Commitment Step

In this dissertation I will focus on only one particular meta-ontology, the essentials of which were proposed by Quine. Let us therefore call it Quinean meta-ontology. It is often alleged that Quine, over the years, presented conflicting formulations of his meta-ontology. That...
may or may not be true. However, I will try not to get bogged down in this exegetical issue. I do not intend to argue that the meta-ontology in which I am interested really is Quine’s. What I am interested in is this particular meta-ontology, the one I will presently sketch—Quine’s or not. But let us assume for simplicity of exposition (and because I think it’s true) that it is Quine’s.

Van Inwagen has the fullest and most comprehensive account of Quinean meta-ontology and so I will rely heavily on his presentation of it. It is interesting, however, that despite van Inwagen’s agreement with Quine on meta-ontology his official catalog of things that exist is vastly different from Quine’s. In fact, it would be difficult to find two philosophers who have ontologies as different from one another as these two do. This difference is due to the nature of Quinean meta-ontology and the way in which it incorporates a philosopher’s “background” beliefs and intuitions.

So what does Quinean meta-ontology consist of and how is it used in ontology, in answering the ontological question? Well, when doing Quinean ontology one proceeds in what might be best thought of as two basic steps or stages. At least ideally. In practice, these two steps are not neatly isolated from one another. For, in addition to the fact that answering the ontological question is an iterative procedure, it is often difficult to see just when one step is completed and the other begun. But to think of practicing Quinean ontology in this way will help clarify Quinean meta-ontology and eliminate some common misunderstandings. The reader may think of my two
steps as merely a heuristic device for clarifying and consolidating the
debate over Quinean meta-ontology (and derivatively the debate over
ontology).

The first step the Quinean takes—what I’ll call the ontological
commitment step—is a preliminary brush-clearing step, but an im-
portant one. In fact, this step contains the only uniquely Quinean
aspects, as we’ll see. In it I determine whether some object must
exist if a given belief (or beliefs) is to be true. In Quinean parlance,
I first determine whether I am “committed to” the existence of some
object, given my beliefs. The notion of commitment is closely related
to that of rationality; it is a normative idea: insofar as I wish to be
rational, I should believe in those things required to make my be-
liefs true. Notice that in the ontological commitment step I don’t
try to determine what objects—what specific kinds of objects—my
beliefs commit me to. I only try to determine whether objects of any
kind must exist, regardless of what they are like. Determining what
specific kinds of objects must exist—if my beliefs are to be true—is
done in the second step: the ontological specification step. In this
step I specify what the objects are like.

Even if a certain kind of object—numbers, let’s say—must exist
for certain beliefs of mine to be true, this doesn’t necessarily mean
that I have decided to believe in numbers. Not yet anyway. I may
decide to reject the results of either (or both) of the first two steps.
Ideally, I will have good reasons for doing so. On the other hand, I
may decide to believe in those objects to which I’m committed. But
in any case, the process of answering the ontological question will generally be iterative, a kind of search for “reflective equilibrium.”

And contrary to what many philosophers believe, doing ontology Quinean-style isn’t a way of determining what there is, even if Quine sometimes speaks as if it is. Rather, it is a method of getting clear about what we believe there is—or should believe there is, were we entirely rational and aware of the relevant implications of our beliefs. This is why I said earlier that the ontological question is better formulated, What should I believe there is? And yet how to eventually decide what to believe isn’t directly specified by Quinean meta-ontology, either.

So then, neither the ontological specification step nor deciding what to believe there is is unique to Quinean meta-ontology. Its uniqueness is found primarily in the ontological commitment step. And indeed, this is where most of the controversy lies.

Let me give a harmless nonphilosophical example of how the ontological commitment step might go, one that won’t distract from the method itself by using contentious “philosophical” objects. Imagine I believe that black cats have strange and extraordinary abilities that other cats don’t have. Let’s suppose that this belief is roughly expressed by

(A) Black cats have extraordinary abilities.

Imagine also that upon considerable reflection—that is, in combination with other beliefs I hold—I conclude by way of impeccable logic that these abilities were granted to black cats by some non-human
sentient being or another; at this point I’m just not sure what kind of being. At the very least these abilities are granted by some object. Black cats didn’t get these abilities via evolution or any other natural process, nor were these abilities “spontaneously generated” ex nihilo (or so I think). Neither do I think that their having these abilities is a brute fact, since I am a fervent believer in the principle of sufficient reason.13 So then, imagine further that I am being absolutely consistent with my other beliefs when I conclude that

(B) There are objects that grant black cats their extraordinary abilities.

It should be obvious from (B) that I seem to be “committed” to the existence of objects (of which non-human sentient beings are one sort) that grant black cats their extraordinary abilities. It seems, that is, that some object or thing must play the “ability-granter” role.14 That my belief in (B) commits me to the existence of ability-granters is not surprising since my belief expressed by (B) just is my belief that there are these things. But it is surprising that my belief in (A) so commits me since such a commitment wasn’t noticed.

13A brute fact is “a contingently true proposition for which there is no sufficient reason or explanation.” (Hudson 1997, p. 77)

14I borrow the talk of “playing roles” from van Inwagen (see his forthcoming) who may have borrowed it from David Lewis. But I do so somewhat hesitantly. ‘Role’ often has a rather technical sense, a sense that I’m not certain I wish to sign on for. I will use it throughout in a rough-and-ready sense: the object must be able to do those things that caused me to realize that there must be some object that does them. Not very precise, to be sure. In any case, if I say that there are things that must play the number role, for example, I’m using it as shorthand for saying that there must be objects that make our ‘number’ sentences true.
until I considered the implications of (A) in conjunction with other beliefs.

This example was chosen in part because (B) is not implied by (A) “alone.” Consider an example to which we return later. My belief that there are three numbers between one and five obviously implies the existence of numbers. It is a straightforward logical consequence from ‘There are three numbers between one and five’ “alone” to ‘There are numbers’. At least we can speak this way. Although actually, this is not quite right. The difference between the inference in the black cat example and the number example is only one of degree, not one of kind. In fact—though I will not argue this—it is plausible that we never make inferences from a single belief. Inferences “depend” on auxiliary or background beliefs; hidden premises, if you will. For example, they depend upon our belief that certain logical rules are worth applying. And they depend on many more besides. But even if I am wrong about logical inference in this respect, inference from a single belief is not essential to Quinean meta-ontology; our current black cat example still accurately depicts the general method employed in the ontological commitment step.\textsuperscript{15}

One way to think of the ontological commitment step is that it is a method for making clear certain roles in our discourse—let us call them \textit{ontological} roles—that require filling or playing by some object or another. And that is all I do in this step. By itself this first step gives us merely a helpful point at which to begin the complicated

\textsuperscript{15}I stress this in response to a complaint of Michael Rea’s.
process of answering the ontological question. But this beginning point is crucial.

I also used the above example to help point out that the ontological commitment step by itself is not taken in order to determine whether our beliefs are true. This goes equally for the ontological specification step, as we’ll see. Nor must our beliefs be true in order to take either of these steps. We could just as well proceed with false beliefs, as we just saw in the black cat example. And it should go without saying that some of us—even, or perhaps especially, as philosophers—are committed to objects that don’t actually exist. So there will be roles in our discourse that are not actually filled by anything. But determining whether there really are such objects is not the point of the ontological commitment step. Nor is determining what kind of objects there are (at least no more specifically than that they must exist if certain beliefs are to be true). Its point is to enable us to determine whether there are roles that must be filled by objects, to determine whether there needs to exist some entity in order to make certain beliefs true—regardless of whether these beliefs are true or false.

Notice too that the ontological commitment step, as part of a strategy to answer the ontological question, is only as good as our ability to determine whether objects of some sort are required to make our beliefs true. There is no simple algorithm or recipe that we can apply to our beliefs in order to determine what our ontological commitments are. We cannot always simply read such commitments
off our discourse; they’re not obvious, often enough. Or if they seem obvious to some philosophers, they don’t seem so to others. And since there can be significant disagreement over the results of the ontological commitment step, disagreement over the resulting answer to the ontological question shouldn’t be surprising. The exact nature of this disagreement should become clearer in subsequent chapters.

1.4 Quinean Meta-Ontology and the Ontological Specification Step

You see now why, in my black cat example, we didn’t much discuss what kind of objects might fill the ability-granter role. We stopped short of trying to answer that question. (Much less did we try to answer the question Do any such objects exist?) Let’s continue the example then. Imagine that in addition to believing that some object must give black cats their extraordinary powers, I further conclude (in combination with other beliefs I hold) that the only objects which can do that are witches; I believe that

(C) The only things that can grant black cats their extraordinary abilities are witches.

To put it another way, I believe that the only sorts of objects that can fill the ability-granter role have the same properties that I believe witches have. It seems then—if my belief that black cats have extraordinary powers is to be true—that there must be witches. I seem to be committed to the existence of witches; at least to the degree that I believe that (A), (B), and (C) are true. No longer am I merely committed to the existence of some entity or another that
fills the ability-granter role; I’m now committed to some (more) specific kind of object. Thus I have taken the ontological specification step.

1.5 Quinean Meta-Ontology and the Relevance of “Background” Beliefs

Have I, at this point in the example, answered the ontological question— at least in some small part? That is, do I now believe there are witches? Not necessarily. Discovering ontological commitments is not the same as deciding what to believe. Deciding what to believe is a highly complicated process, one that resembles some form of reflective equilibrium, as I said. Let’s look a few of the paths I might take, now that it looks as my belief in (A), (B), and (C) commits me to the existence of witches.

Suppose I had previously—prior to examining (A) for what it commits me to—believed the following:

(D) Witches do not exist.

Now that the ontological commitment step reveals that I’m committed to witches shouldn’t I now discard (D) and believe in witches? Well that will depend on how strongly I believe (D). If I think my reasons for believing (D) are much better than my reasons for believing (A), (B), and (C), I’ll probably resist believing that I’m committed to witches.

So let’s say that I have (what I take to be) very good reasons for believing (D), so good in fact that there’s just no way I’ll believe in
witches. Now what am I to do? I cannot reasonably believe (A), (B), (C), and (D) simultaneously. I’ll have to do something to relieve the tension.

One means of relief might be to look for some kind of object other than witches that grants black cats their extraordinary abilities. That is, I might consider the possibility that (C)—which says that the only things that can grant black cats their extraordinary abilities are witches—is false. After all, it would be presumptuous to think that I’ve considered all the possible kinds of objects that could play the relevant ability-granter role. I should at least entertain that I’ve missed some of them.

Considering this possibility then, maybe I could discover—or construct—some other acceptable type of object that can perform the same role that I thought only witches can perform, insofar as the special abilities of black cats is concerned. To do so would be in essence to take another stab at the ontological specification step. Let us suppose that I do this and am able to come up with an alternative kind of object that can also play the ability-granter role. Upon reflection I discover that extra-terrestrials are just such an alternative. Now I’m back to roughly the same point I was when I seemed to be committed to witches. But instead of witches, this time it’s extra-terrestrials. Should I believe in extra-terrestrials? Again, that will depend. Let’s suppose that I can and do believe in them (I’ve always thought there was something to the reports coming from Roswell). Now suppose I believe the following:
(C') The only beings that can grant black cats their extraordinary abilities are either witches or extra-terrestrials.

and therefore, since I still believe (D),

(E) Extra-terrestrials play the ability-granter role.

I can now reject (C), and this enables me to rid myself of the troublesome inconsistency arising from believing (A), (B), (C), and (D). Notice that this time around I’m not only committed to extra-terrestrials but now I also believe in them. I have answered—to some very small degree—the ontological question. There are extra-terrestrials. Or so I believe. And I have Quinean meta-ontology to thank, at least in part. My commitment to extra-terrestrials had gone unnoticed until I proceeded as Quine suggested. Again, however, Quinean meta-ontology didn’t specify how to go about deciding whether to believe in extra-terrestrials.

Let me again stress an important point. It was not the ontological commitment step that revealed a commitment to extra-terrestrials in particular. The step only revealed a commitment to some object or another that must play the ability-granter role. The ontological specification step revealed (or resulted in) the commitment to extra-terrestrials. This specific commitment “piggy-backs” on the more fundamental—the more general—commitment to objects that play the ability-granter role.

But let’s return to that point in the example at which I’m confronted with the inconsistent group of beliefs expressed by (A), (B), (C), and (D). Giving up (C) wasn’t the only way to relieve the ten-
sion, of course. An alternative would have been to stop believing that black cats have extraordinary abilities; I could have given up (A). Or I could have acquiesced and believed in witches; I could have given up (D).

Or I might have discarded (B) and believed, say, that black cats’ abilities defy the laws of nature and were spontaneously generated \textit{ex nihilo}.\textsuperscript{16} This would have amounted to rejecting the results of the initial ontological commitment step. (That is, I may, after seeing the unsavory consequences of believing (B), return for a closer look at what (A)—in combination with other of my beliefs—commits me to. Perhaps I’m not committed to (B) after all. Perhaps I made a mistake the first time.)

As I suggested at the beginning of this section, the point of taking the black cat example in these various directions after the initial ontological specification step was to highlight the complexity that can be involved when practicing ontology à la Quine. Quine is often interpreted as presenting his strategy as a \textit{simple} recipe for deciding what to believe but this interpretation couldn’t be much further from the truth. Answering the ontological question will typically be an iterative process, as it was in even the simple and contrived black cat example. That example also emphasized the fact that many beliefs are often involved when determining what one is committed to.

Let me quickly consolidate what I’ve said regarding Quinean meta-ontology. Quinean meta-ontology specifies how one should

\textsuperscript{16}Of course by giving up any of (A), (B), (C), or (D), I need not believe their negation. I may decide to suspend judgment altogether.
do ontology, how to interpret and answer the ontological question, the ‘What should I believe there is?’ question. I have characterized (oversimplified, even) the practice of Quinean ontology as a two-step process. In the first step—the ontological commitment step—I get my ontological bearings by discovering what ontological roles need to be played in some set of beliefs. I then, in the ontological specification step, determine what sorts of objects can play these roles. The results of this last step might convince me to return to the first, which will in turn take me again to the second. And so on, until I’m happy with the results and decide what to believe there is.

1.6 The Abstract/Concrete Divide

Let us return now to the topic of abstract objects. As far as terminology goes, recall that at the beginning of this chapter I used ‘abstractism’ to refer to the view there are abstract objects (for although ‘platonism’ and ‘realism’ are often used, different philosophers frequently mean different things by these terms). And similarly, rather than use the term ‘nominalism’ to refer to the opposing view that there are no abstract entities, let’s take Alvin Plantinga’s suggestion and use ‘concretism’, a term which is more to the point.\[^{17}\]

Now as I said, I’m not convinced by the best—or at least most straightforward—argument for abstractism. I remain unconvinced partly because I doubt that my beliefs contain many of the ontological roles that some abstractists claim they do. That is, I disagree

\[^{17}\text{Plantinga 1980, p. 64.}\]
with them over the results of the ontological commitment step. But notice that I said that I doubt that my beliefs contain *many* of the ontological roles that abstractists claim they do. I say ‘many’ because I agree that some of these roles must be filled. But I think that concrete objects can fill them; so I will disagree with abstractists over results of the ontological specification step too.

The distinction between abstract and concrete objects now comes to the fore. How are we to distinguish abstract from concrete objects? What makes an object “abstract?” Typically whenever philosophers give a list of objects that are supposed to be paradigmatically abstract—and I’m no exception—the list trails off with something akin to ‘and the like’. But like *what?* What are abstract objects like? Well, from our considerations of the ontological commitment step you may have reasoned—given the topic of this dissertation—that abstract objects are supposed to play certain roles in language and thought, “the number role,” “the property role,” “the proposition role,” and the like. And you would be right. Abstract objects are supposed to be implied by many of the beliefs with which we cannot plausibly do without. And although it’s not much, this much we understand about abstract objects.

This brings up an important point. Often, when a philosopher says, “Numbers exist” she sometimes means little more than “There are objects that play the number role.” (Or what she means is as unspecified as that.) Merely saying that there are numbers doesn’t necessarily indicate that the ontological specification step has begun
in earnest. To put it another way, merely saying that the objects in question are numbers doesn’t tell us much about them.

Anyway, there are philosophers who claim to understand more about abstract objects than merely, say, “the type of object that plays the number role.” Of course, there’s no consensus among these philosophers, but that’s to be expected of any substantive philosophical view. Let’s briefly look at some of the different things that have been said regarding what abstract objects are supposed to be like. In particular, let’s look at how philosophers have characterized the distinction between abstractness and concreteness.\(^{18}\)

But before doing so, let me make a side comment. Concerning the characterizing of abstract objects, I have heard it said that if concretists aren’t going to believe in abstract objects then they had better have some idea of what abstract objects are like. For example, Burgess and Rosen snidely remark that “there is a certain lack of clarity also in the vatic utterance of the founders of [concretism] that all’s concrete, naught’s abstract.” In other words,

>[When] one turns to discussion of reasons and grounds for purging our views of all commitment to abstract entities, one will need to appeal to some explicit account of what it is about abstract entities as such that is supposed to make them philosophically problematic. If there is to be serious discussion of the case for [concretism], something must be said about what is supposed to be distinctive about the things the [concretist] is concerned to do without. (Burgess and Rosen 1997, p. 11)

\(^{18}\)As Alvin Plantinga has pointed out to me, concreteness isn’t all that easy to define either (other than by ostension—that is, extensionally).
Taken in one sense, they are absolutely right. The concretist will want to have reasons for not believing in abstract objects, some reasons which might relate to what abstract objects are supposed to be like. However, in the sense that I understand them, they are claiming that the onus is on the concretist to come up with a clear characterization of the concrete/abstract divide. (Presumably a characterization which has “clarity” is one that explicitly lists the characteristics of abstract and concrete objects.) And it seems that they aren’t all that sure this has been properly done—either by concretists or abstractists. This is a problem to be sure, but whose problem is it? The concretists? If so, isn’t that akin to the theist demanding that the atheist come up with an explicit, coherent view of God before the atheist can reasonably refuse to believe in such a being? That is, says the theist, “You make a big deal about not believing in God, but you—like us—can’t even come up with a very clear picture of what he’s like.” That would be a surprising and uncharitable demand put on the atheist. And so too on the concretist.

Now to the distinction itself. The most common way of characterizing it is by simply giving examples of both kinds of objects, what David Lewis calls ‘the Way of Example’.\textsuperscript{19} The advantage of this way is that there is considerable agreement—at least about which category an object falls under. I have already given examples of both kinds, but there are many others. The following are

\textsuperscript{19}In his book \textit{On the Plurality of Worlds} (Lewis 1986) he categorizes the ways that philosophers have made this distinction.
paradigmatically abstract:

(a) Biological kinds and species
(b) Geometric shapes
(c) Linguistic entities like meanings or intensions (which are semantic entities), word types such as ‘cat’ (which are syntactic), sentence types like ‘the same offensive sentence was scrawled on every blackboard in the building’, and the novel War and Peace
(d) Institutions like Apple Computer, Inc., the United Nations, and marriage

Here are examples of concrete entities:

(e) Observable physical objects like donkeys, rocks, and stars
(f) Unobservable physical objects like atoms, quarks and black holes
(g) Nonphysical and unobservable objects like minds, spirits, perceptions, and thoughts

These lists are at least a beginning in our attempt to understand what distinguishes concrete from abstract objects. The objects on one list seem, intuitively, very different from those on the other. But why do these objects fall under their respective headings, and that fairly consistently? What do the members of each group have in common with their fellow members that distinguishes them from those in the other category?

The Way of Example doesn’t say. However, Lewis believed that there are three further ways in which the distinction has been characterized, ways that say more about why the objects fall into their respective categories. According to the first of these explanatory
ways, the Way of Conflation, the difference between abstract and concrete objects are explained in terms of the differences between other objects that we better understand. For example,

the distinction between concrete and abstract objects is just the distinction between individuals and sets, or between particulars and universals, or perhaps between particular individuals and everything else. That accords well enough with our examples. It is safe to say that donkeys and the like are particular individuals, not numbers or sets.  

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So if we can equate the abstract/concrete divide with these other divides then we might be able to understand the abstract/concrete distinction at least as much as we understand these others.

Unfortunately these other distinctions seem to be no clearer than that between abstractness and concreteness. For now, imagine that the universal/individual divide falls along the abstract/concrete divide. Then

abstract things are things that have instances, and concrete things . . . well they don’t; they simply are. There is the novel War and Peace, for example, and then there are all the copies of War and Peace, which are its instances. Two different tunes, or two occasions of their performance on the flute, may be instances of the mixolydian mode. Six textbooks on gravity may contain six different formulations of the General Theory of Relativity. The property aridity may have both Arizona and Libya as instances. Denmark and Italy (on the one hand) and Montreal and New York (on the other) may be distinct instances of the relation “to the north of.” The number four numbers the Stuart kings of England, the points of the compass, and the canonical Gospels. Frederick the
Great, however, did not have instances: he simply *was*. (van Inwagen forthcoming)

I will merely say that the closest I can come to understanding the universal/individual distinction is something like the type/token distinction. But then I can make nothing more of this latter distinction than interpreting it as something like a species of the original/copy distinction. And the original/copy divide is surely not going to fall entirely along the abstract/concrete divide. This is no argument of course. But it’s tempting to believe that the Way of Conflation will appeal only to those who already believe in (or at least understand) something like the abstract/concrete distinction. Much more importantly, the alternative distinctions—at least those given above—require just as much explaining as the one they’re employed to explain.

But there is still hope. There are additional “ways” of characterizing the abstract concrete distinction, according to Lewis. Some philosophers have, for example, characterized abstract objects by telling us what they are *not* like, by listing properties that concrete things have that abstract things don’t. This is the Negative Way.

Here are the most common ways in which abstract objects are not like concrete ones:22

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21I cannot defend here my belief that I can get away with replacing the type/token distinction with the original/copy distinction. Suffice it to say that I am aware that I will have to give up certain common ways of speaking—or at the very least claim that sentences in which these common locutions occur are false or merely figurative.

(a) They lack spatial location;
(b) They lack temporal location;
(c) They do not interact causally with anything.

It is fairly safe to say that the first two do not distinguish concrete from abstract entities. At least for many philosophers. For example, most philosophers in the Western theological tradition believe that God exists outside both space and time. And God, they would also say, is paradigmatically concrete.\(^{23}\)

But what about a lack of causal relations with other objects? God certainly doesn’t lack these and so he can’t be used as a counterexample here. That is,

> whatever his relation to space and time may be, God does things; he makes things happen, and that is just what numbers and properties and propositions do not do. (van Inwagen forthcoming)

So maybe this is a good way to characterize abstract objects: namely, that they cannot enter into causal relations (and concrete objects can). Of course, as van Inwagen points out, this is no clearer than the idea of “entering into causal relations,” yet acausality may still be a step further in characterizing the abstract/concrete distinction; it may be extensionally correct. And van Inwagen thinks it is. But he points out that this doesn’t explain much. That is, we also want

\(^{23}\)This is also one reason for not locating the abstract/concrete divide along the necessary/contingent divide. God and abstract objects are both supposed to exist necessarily. (Of course, it seems that not all abstract objects exist necessarily: for example, sets that have contingent members would not.)
to know *why* abstract objects cannot enter into causal relations. What makes them thus impotent? It’s difficult to say.

The last of Lewis’s ways, the Way of Abstraction, is related—or at least seems to be—to the historical use of the term ‘abstract’. According to this characterization “abstract entities are abstractions from concrete entities.” As van Inwagen explains,

The original philosophical home of the adjective ‘abstract’ was in the phrase ‘abstract idea’...An abstract idea is, of course, an idea that applies to many particular things. An abstract idea was, Locke thought, formed in a person’s mind by his observing many particular things and thereby forming, at least momentarily, many “complex” ideas, each applying to a particular thing, and then leaving out what was not shared by the many complex ideas of the individual particulars. (van Inwagen forthcoming)

But abstract ideas are not abstract in the sense in which we’re interested: abstract in the sense that they’re not concrete. As understood historically, abstraction is a mental process having ideas as its result. And ideas are paradigmatically concrete.24

If this is correct, then the historical discussions of abstractness (for example, in the case of the debates over numbers in the eighteenth- and nineteenth-centuries) seem to have been infected with a confusion repudiated by virtually all contemporary philosophers...with psychologism, the failure to distinguish numbers themselves (which are abstract in the contemporary sense) from mental ideas or thoughts of them occurring to particular people at particular times.

24Or so it seems to me. Ideas are part of our mental furniture, such furniture being parts of us. And I assume, furthermore, that we do not have abstract objects as any of our parts.
and places with particular causes and effects (which are concrete). (Burgess and Rosen 1997, pp. 17–18)

Perhaps, then, there is no direct historical continuity with modern debates over abstract objects—at least along these lines. Yet there is an indirect relation—at least to the more specific debate over universals.

If the first appearance of ‘abstract’ in modern philosophy was in the phrase ‘abstract idea’, therefore, it is not hard to see how the word in due course became associated with universals or qualities or attributes or characteristics or properties. (van Inwagen forthcoming)

So there may be some historical continuity by way of universals and therefore some potential help in characterizing abstract objects. But as I claimed earlier, trying to understand abstract objects in terms of universals is of no help: universals are just as much in need of explanation as abstract objects are.25

Given this brief discussion of the abstract/concrete distinction it is plausible to think that very little can be said about abstractness (and maybe concreteness too). Even van Inwagen admits as much: “The distinction between abstract and concrete objects...seems to me to lack a verbal formulation.”26 However, something can be said about abstractness, as we have seen. It doesn’t seem to be an

25 There seems to be at least one way significant way in which abstract and concrete objects are alike: both are objects. But is this really significant? It is plausible that ‘object’ just means ‘thing’ or ‘entity’ or ‘item’, Frege—who believed that there is a difference between objects and concepts—notwithstanding. See van Inwagen forthcoming.

26 van Inwagen forthcoming.
incoherent notion. Furthermore, as van Inwagen reminds us (and recalling the Way of Example),

the distinction is one that we have. If we present to a large and diverse contingent of philosophers a list of names and general terms (like the lists presented above), and if we ask these philosophers to divide the list into those terms that (if they designate anything) designate abstract objects and those terms that (if they designate anything) designate concrete objects, we shall observe a very strong convergence of judgment. And this convergence will be independent of the ontological convictions of these philosophers. Those who affirm the existence of abstract objects, and those who deny the existence of abstract objects will say that if there were propositions and numbers they would be abstract objects. (van Inwagen forthcoming)

So the fact that philosophers generally come up with very similar lists of abstract and concrete objects provides us with enough “data” to prime the philosophical pump; it gives rise to an interesting question (namely, why is there this consensus?). Yet, pace van Inwagen, there are some of us who believe that even if there were propositions and numbers, they would not be abstract.27 In fact, another motivation for this dissertation is my belief that if there are propositions and numbers, then concrete mental objects are the best candidates for them.

27 And pace concretist Hartry Field too: “The term ‘abstract entity’ may not be entirely clear, but one thing that does seem clear is that such alleged entities as numbers, functions, and sets are abstract—that is, they would be abstract if they existed.” (Field 1980, p. 1)
1.7 Why Concretism?

Some concretists make heavy going of the fact that they find abstractists’ explanations of abstract objects difficult to understand. I will try to avoid doing this. The fact that I have very little understanding of what abstract objects are supposed to be—at least this mere fact—is not necessarily a good reason not believe in them. To think so would be an impressive display of arrogance on my part. Furthermore, my lack of understanding is an even worse reason for you not to believe in them. Not only that, I believe in many other objects that I don’t understand very well. I believe in subatomic particles, black holes, God, Satan, angels, and demons. So it would seem strange for me—unprincipled perhaps—not to believe in abstract objects simply because they’re strange (in that they are very unlike the things we deal with in everyday life). My perplexity, then, cannot plausibly be used as a reason to deny abstractism. At least

28 A parable given by Alonzo Church at Harvard in 1958 colorfully illustrates this point. Here’s part of this parable:

Goodman says somewhere that he finds abstract entities difficult of understand. And from a psychological viewpoint it is certainly his dislike and distrust of abstract entities which leads him to propose an ontology from which they are omitted. Now a misogynist is a man who finds women difficult to understand, and who in fact considers them objectionable incongruities in an other wise matter-of-fact and hard-headed world. Suppose then that in analogy with nominalism the misogynist is led by his dislike and distrust of women to omit them from his ontology. Women are not real, he tells himself, and derives great comfort from the thought—there are no such things. This doctrine let us call ontological misogyny.

I am indebted to van Inwagen for providing the parable. He obtained it from Michael Zeleny, who says that Tyler Burge was the one who preserved Church’s remarks for posterity.
this fact by itself cannot.\textsuperscript{29}

On the other hand, the little that can be said about abstract objects just \textit{might} provide a good reason not to believe in them. Whereas nothing in the above discussion on the abstract/concrete distinction \textit{alone} provides this (for me), in combination with my belief that God created \textit{everything} (besides himself), it provides me with a very convincing reason to not believe in them. If I were to believe in abstract objects, this belief would conflict with my very strong belief that every object, every \(x\), is either God, a part of God,\textsuperscript{30} or created by God. But abstract objects don’t seem to be any of these.

I have another, secondary, reason for not believing in abstract objects, one which is related to the frequently made claim that we come to philosophy \textit{already} believing in abstract objects. Some philosophers claim that we don’t merely have prephilosophical beliefs that \textit{imply} their existence; often enough we have prephilosophical beliefs that can be expressed in the form \textit{there are} \(x\)’s for \(x\)’s that many philosophers believe are abstract. For example, Burgess and Rosen claim that

\begin{quote}
Before we come to philosophy, we have a fairly uncritical attitude towards, for instance, standard results of mathematics, or such of them as we have learned about. Having studied Euclid’s Theorem, we are prepared to say that there exist infinitely many prime numbers. More-
\end{quote}

\textsuperscript{29}It may be, however, that our perplexity arises because the very concept of an abstract object is incoherent, as Lewis seems to think.

\textsuperscript{30}For example, God’s thoughts or ideas.
over, when we say so, we say so without conscious mental reservation or purpose of evasion. We have in mind no subtle and complex attitude combining outward feigning with inward detachment. (Burgess and Rosen 1997, p. 10)

This claim—or at least this attitude—is common among philosophers; especially among abstractists. Such a claim, I think, can help highlight an important part of the concretism/abstractism debate. Naturally enough, philosophers typically believe that the burden of proof in any philosophical debate falls on the side whose view forces us to revise ordinary “folk” beliefs. If you are of the opinion that we come to philosophy believing in numbers, you will naturally enough think that those who want us to stop believing in them must provide some sort of argument.

For those of us for whom [platonist-like beliefs are] the starting-point, any form of nominalism will have to be revisionary, and any revision demands motivation. We are not so firmly attached to our pre-philosophical beliefs that we would refuse to give them up even if an angel came down from heaven and told us they were false; but if it is only a matter of a philosopher coming out of the study to tell us they are untrue, we will want to be given some reasons for changing our minds. Why not just acquiesce in the minimal non- or un-nominalism many of us find ourselves coming to philosophy with? (Burgess and Rosen 1997, p. 11)

They make a wholly reasonable methodological point. A philosophical theory had better be a very good one if it implies that certain of our ordinary beliefs are wrong. At least it had better be a very good one if a philosopher is using it to convince us that we should give up some relevant ordinary beliefs.
Of course this cuts both ways. For those of us whom concretism or something like it is a starting point, abstractism will be revisionary. However, in their book, Burgess and Rosen claim that “we”—the scope of ‘we’ seems rather wide—ordinarily believe in the existence of numbers, and that it’s up to concretists to convince “us” otherwise. I doubt they are right about this. In any case, theirs is a significant empirical claim, one requiring empirical support.

Here is a bit of evidence for the claim that I came to philosophy with more or less concretist views. I, too, say things like ‘there are three numbers between one and five’. Prior to philosophy, however, I had never heard the following sentences: ‘There are numbers’ (tout court) and ‘Numbers exist’. Furthermore, when I finally heard them, I was nonplussed. I had never even considered whether numbers exist. But how could I say things like, “There are prime numbers greater than ten” and yet be puzzled by ‘Numbers exist’? This is an interesting question but in any case it is my puzzlement that I point to when I say that I came to philosophy with more or less concretist beliefs.

So that’s another contributing factor to my unbelief in abstract objects: I find abstractism in some sense revisionary. This will obviously influence my attitude towards various claims about what our beliefs commit us to, as well as what I should believe exists.

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31 I know of many folks who have had this same response.

32 I should also point out that when forced to consider the issue, I thought—and still do—that if there are numbers then they are mental entities, concepts or ideas. But more on this in later chapters.
1.8 Preview of the Dissertation

This dissertation, as I said, is devoted to the question of what there is and to the “broadly Quinean” strategy (as van Inwagen calls it) for answering it. In it I also focus on the issue of whether there are \textit{abstract} objects. I could have focused on, or included, other issues in ontology, like the question of what concrete objects there are. That is, I could have asked whether there really \textit{are} tables, chairs, rocks, stars, rock stars and donkeys?\textsuperscript{33} I could have also asked how one individuates concrete objects. But I do not. Only those objects that are reputedly abstract are among the things I discuss.

In the following chapters, I explain—in much more detail—the steps associated with Quinean meta-ontology as well as their use in an argument for the existence of abstract objects (I emphasize ‘use’ because this argument for abstract objects is not part of Quinean meta-ontology).

In Chapter 2 I focus on the Quinean’s emphasis on being consistent in our believing and sentence, as well as on the uniquely Quinean notions of existence. The ontological commitment step is driven in large part by these issues and so I discuss this too.

I devote the entirety of Chapter 3 to the Quinean view of quantification since there is a significant amount of confusion surrounding just what is and what isn’t essential to the view—at least in so far as it pertains to Quinean meta-ontology.

\textsuperscript{33}In case you doubt that this is a question that philosophers have given a ‘no’ answer to—at least with respect to some of the items on this list—see van Inwagen’s 1990.
In Chapter 4, I discuss the ontological specification step and develop an general argument for the existence of abstract objects that makes use of Quinean ontology. With respect to the latter, I claim that arguments for abstractism which are founded upon Quinean meta-ontology are really of the same essential form, despite certain claims to the contrary. And as I said at the very beginning of this chapter, I’ll call this generic argument—the genus under which the specific arguments fall—the *ontological indispensability argument for abstractism* (OIAA). Although “OIAA” arguments are not presented *as such* by Quineans, I think it is right to construe them as such. Doing so should help clear away some of the wide-spread confusion about what Quinean meta-ontology is and how it was intended to be used by Quine.

Of course, there are many objections to both Quinean meta-ontology and the OIAA. In Chapter 5 I will consider some particularly interesting objections to both that will help clarify Quinean meta-ontology and its use in indispensability-style arguments for abstractism. But not only that, I think that the objections will suggest where we nominalists might look for a *successful* objection to the OIAA.

So in the final chapter, Chapter 6, I make some salutary albeit speculative suggestions, indicating where I think future research should be directed, future research that might lead to a successful objection to the OIAA. There is one particular concretist position that holds promise, it seems to me: a version of fictionalism. It is
certainly not my goal to *argue* for this position. In fact, I won’t even present it in any significant detail—much still remains to be worked out. Rather my goal is to sketch only enough of the view to point out some of the salient problems it seems to face. Although I suspect that these difficulties can (largely) be overcome, the overcoming itself is left for future work.
As I said in Chapter 1, ontology is that discipline wherein its practitioners try to answer the ontological question, “What should I believe there is?”¹ That is, ontology is the answering of this question. In that chapter I also said that it is one’s meta-ontology that dictates how one is to do ontology. But ontologists—even if they agree that their primary goal is to answer the ontological question—don’t always agree on meta-ontology. There are different meta-ontologies, as we shall see.

I also roughly sketched a particular meta-ontology, Quinean meta-ontology. Recall that ontology that is done in accordance with Quinean meta-ontology is best thought of as composed of two steps or stages. And although in practice neither step is hermetically sealed from the other, these are truly two distinct steps. Or so I claimed. I called the first step the “ontological commitment step;” in it the ontologist determines for a given belief (or beliefs) what ontological roles must be played by something, by some object or

¹I will use ‘What should I believe there is?’ and ‘What is there?’ interchangeably. The latter should be understood as a more pithy (and less accurate) statement of the former.
another. That is, he discovers whether these beliefs require for their truth the existence of objects. In this first step, however, the ontologist doesn’t specify what these objects are like—at least not in any more detail than, as we saw, “some object required for the belief(s) in question to be true.” Rather, he specifies what these objects are like in the second step of Quinean ontology, what I called the “ontological specification step.”

Recall too, that in neither of these steps does the ontologist necessarily believe that there are any such objects—although he might. After he discovers that objects of some sort are required to make his beliefs true, in addition to what they might be like, the ontologist may indeed decide to believe in these objects. On the other hand, he may decide that he doesn’t like the idea that certain kinds of objects are required to make the belief(s) in question true. In that case, he’ll more than likely revisit steps one and two. Perhaps (he may reason) these objects only seem to be required. Either option will depend on the rest of his theory of the world and all that that implies.

In this chapter I’ll examine in considerable detail Quinean metaontology and the ontological commitment step—the step that is truly unique to the practice of Quinean ontology.\(^2\) My goal is to explain Quinean meta-ontology in a way that will make plain, not only what it is, but also what it is not. As we’ll see, Quinean meta-ontology contains certain theses about the notion of existence; it also suggests

\(^2\)Every ontology will include an ontological specification step in some form or another, of course.
a strategy by which one can begin to answer the ontological question. In any case, I will strip Quinean meta-ontology down to what I think are its essentials. This should help us to better see the truly relevant (and irrelevant) objections that have been leveled against it. I also hope to show that Quinean meta-ontology deserves to be a bit less controversial than it is. Again, this is because it doesn’t include some of the views that its opponents think it does. Quinean meta-ontology is actually something slightly kinder and gentler than is often thought. Nevertheless, it is not my purpose to give a full blown defense of Quinean meta-ontology but only to clearly present it.\footnote{It will be clear, however, that I have certain sympathies for it—even if I don’t agree with all its aspects.} To be sure, however, some common objections should fall away since the targets at which they are aimed are not really parts of Quinean meta-ontology proper.

2.1 Consistency and Commitment

When answering the question “What should I believe there is?” a good starting point, according to Quinean meta-ontology, is the beliefs I already have. For one thing, I already think that these beliefs are true. (Whether or not they \textit{are} true is somewhat—but not wholly—beside the point, as we’ll see.) To illustrate the general picture, let us imagine that I am able to express all of my beliefs in English or some other natural language and that I write all of them down in an itemized list. This would be a very long list indeed, but
suppose I could do this. Now, suppose that a given belief on my list, belief #2,310, say—which I think is true—would require for its truth (were it in fact true), some object in which I don’t already believe. It seems, then, that I should do one of the following: either also believe that this object exists or else stop holding belief #2,310 (for simplicity, let’s also assume for now that I can investigate the ontological implications of each of my beliefs in isolation from all the other beliefs on my list). If belief #2,310 were expressed by the assertion ‘There are lions prowling outside waiting to devour me’ then I should either believe that lions exist or else stop believing that there are any outside my house waiting to devour me. None of this should be surprising or controversial.

A few points about this imagined scenario. The first is that it is underwritten by the following principle, call it the principle of ontological consistency:

(P1) We should either believe in those objects that are required to make our beliefs true, or else stop holding those original beliefs.

This principle is just plain good sense. It merely states that I should be consistent in my believings (Quine speaks of determining what we should believe “insofar as we are reasonable”). Nevertheless, from it arises the notorious notion of ‘ontological commitment’. That is, the principle of consistency can be stated another way:

(P2) We are committed to the existence of those objects whose existence is required to make our beliefs true in so far as we desire to retain those original beliefs.

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4Quine 1963a, p. 16.
Let us call this the *principle of ontological commitment*.5 I have formulated the general principle in these two ways in order to show that there is a strong connection between ‘should’ and ‘committed’. Ontological commitment—the type of commitment relevant here—is a normative notion. But we should not resist it; at least we should not resist it any more than we resist being reasonable (whatever exactly this latter notion may be). That is, the normativity associated to ontological commitment is, at bottom, the normativity associated with being reasonable.

Although the principle of consistency can be formulated in terms of commitment, one might complain that it doesn’t really tell us exactly what commitment amounts to. This complaint is, I think, driven by a desire for an unnecessarily technical formulation. There’s little more to the notion of commitment than that we should be consistent in our believings.

But there might be a further complaint: what does it mean for an object to make our beliefs true? To be sure, ‘make’ in this context is metaphorical, but the general idea is simple, at least for our purposes here. To see this, let’s first put the notion of commitment this way: my initial belief $B_i$ commits me to the belief $B_x$ that there are $x$’s if $B_i$ implies that there are $x$’s. Or instead of saying that “$B_i$ implies $B_x$” (Quine speaks of “existential implications”6), we could, as van Inwagen does, say that $B_x$ is a “formal consequence”7 of $B_i$, or that

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5I will clarify this principle later.

6Quine 1960, p. 120.

7van Inwagen forthcoming, p. 30.
$B_x$ is “formally deduced”\textsuperscript{8} from $B_i$. With respect to belief #2,310—the $B_i$ in this case—I am committed to the existence of lions $(B_x = \text{There are lions})$.\textsuperscript{9} Of course, the limiting case of my general formulation of commitment is the one in which my original belief just is that there are $x$’s, when $B_i = B_x$. If I believe that there are lions then I’m trivially committed to the belief that there are lions.

So the notion of what objects make a sentence true can be explained in terms of beliefs that are implied by other beliefs. If a statement of mine implies a statement that something exists, then in some sense that “something” is required to make that original statement true.\textsuperscript{10} Conversely, if the “something” doesn’t exist then the original statement cannot be true.

Let me make a few side comments. Strictly speaking, ontological commitments will not arise from a single belief (as we initially assumed for convenience), but from many taken together. Although the extent to which beliefs in addition to $B_i$ are relevant will typically be an interesting philosophical issue, the mere fact that other beliefs are involved shouldn’t be. (Even the simplest formal deduction from “one” belief to another will depend upon beliefs about validity, for

\textsuperscript{8}van Inwagen forthcoming, p. 31.

\textsuperscript{9}This notion of commitment is not specific to ontological issues (this shouldn’t be surprising since implication, or deduction, or logical consequence is not specific to ontology either). Suppose I believe that you are over five feet tall. In some perfectly ordinary sense of ‘committed to’ I am also committed to the belief that you are over three inches tall.

\textsuperscript{10}I don’t have anything more precise to say about commitment and what it means to make a statement true. But that’s okay, since Quinean meta-ontology doesn’t require anything more precise.
Also notice that I formulated the notion of commitment in terms of beliefs. It is often formulated in terms of sentences—assertions or affirmations (as opposed to questions, say).\textsuperscript{11} One very good reason for such formulations is that all of us acknowledge—or should acknowledge—that there are physical linguistic objects such as sentences, words, utterances and inscriptions. There is, then, some body of phenomena that all parties in the ontological dispute are willing to accept, phenomena that they will all want their ontology and meta-ontology to explain.\textsuperscript{12}

So why not just stay with sentences? Primarily because what a person is committed to is, ultimately, a function of what that person believes, and I merely want to emphasize this. Sentences, I take it, are just one kind of indicator of what a person believes (another

\textsuperscript{11}I am, of course, using ‘sentence’ in its less ontologically extravagant form: particular sentences rather than sentence types. I will not get into the issue of just what sorts of objects are true and what sorts of objects are implied. I will often speak of beliefs as being true and of beliefs implying other beliefs. I will also say similar things about sentences, propositions, statements, and assertions. I take it, however, that sentences, for one, (being physical objects) are not the sorts of things that can be true or false or implied. Rather, they are true or false or implied “derivatively.” They can be said to be true or false or implied only insofar as they express or stand for something (again, metaphorically) that is true or false or implied. Perhaps this latter thing is a proposition; or perhaps it is an idea, or maybe a belief.

\textsuperscript{12}This is why Quine says that when we speak of ontological commitments we do so taking a semantic ascent; that is, we mention certain words rather than use them: “The strategy of semantic ascent is that it carries the discussion into a domain where both parties are better agreed on the objects (viz., words) and on the main terms concerning them. Words, or their inscriptions, unlike points, miles, classes, and the rest, are tangible objects of the size so popular in the marketplace, where men of unlike conceptual schemes communicate at their best.” (Quine 1960, p. 272)
indicator is our non-linguistic behavior). So then, a big part of determining what we are committed to is *interpreting* our sentences, determining what exactly we believe. In fact, this interpretation process makes Quinean meta-ontology more subtle and difficult than is often considered. What our beliefs initially *seem* to commit us to might not be what they *really* commit us to. In any event, I will speak sometimes of beliefs, and other times of sentences (or utterances, inscriptions, assertions, etc.).

Let’s return to the normative principle in which the notion of commitment first appeared, (P2). Notice that the notion of truth also plays a role in this principle. What is the connection between commitment and truth? In the imagined scenario in which I listed all my beliefs, I only wrote down those sentences that express beliefs which I think are true. It is not, however, crucial that these beliefs *be* true. No doubt my list contained many false beliefs. And I can be committed by way of these false beliefs to the existence of objects. That is, these false sentences might really imply sentences that say that some object or another exists. Of course I’m also committed to those objects whose existence can be logically deduced from my *true* beliefs. And in the case of these true beliefs, these objects really do exist, provided that they really are required to make those true

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13 When it comes to determining what *I* believe, I have other indicators such as my internal mental phenomena—indicators that Quine tries to ignore.

14 This may be, in fact, one of the main reasons many philosophers don’t like the notion of ontological commitment. They mistakenly think that the notion of commitment is simplistic and that it doesn’t take into account the nuances of meaning that a sentence might express. But this, we’ll see, is a misinterpretation of Quine.
beliefs true.

So truth is important to our general principle of commitment in two ways: (1) truth trivially helps me “decide” which beliefs to consider in the first place and (2) I must determine what objects are required to make my beliefs true (regardless of whether the beliefs are in fact true). Again, we must not think, however, that being committed to the existence of objects implies by itself that these objects exist; we must not think that simply being committed to \(x\)’s implies the truth of ‘There are \(x\)’s’.\(^{15}\)

So, according to Quinean meta-ontology we begin the process of answering the ontological question with those beliefs we already have. And we have a very general normative principle to guide us. This fundamental principle directs us to be consistent in our believings, regardless of whether our beliefs are in fact true. Not only that, this principle of consistency can be stated with or without the term ‘commitment’. We’ve seen, I think, that commitment here is simply one form of doxastic consistency.

As for the ontological question itself, we saw in Chapter 1 that it is ambiguous. Is this question the same question as, for example, ‘What should I believe exists?’ Some think not. Let us turn now to the meaning of the question, and so to the notion(s) of existence and being.

\(^{15}\)My reason for emphasizing this—perhaps more than seems necessary—is that in discussions with very capable philosophers these points are repeatedly missed.
2.2 What the Ontological Question Means: Existence and Being

In his essay, “On What There Is,” Quine presents two views that are part of a “broadly Quinean” meta-ontology and he does this against the backdrop of what he calls the “old Platonic riddle of nonbeing” or “Plato’s Beard.” Much of his essay is more an *exercise* in Quinean meta-ontology (what other kind could it be?) than an *explanation* of it. Furthermore, much of his own solution to the riddle of nonbeing does not constitute part of his meta-ontology proper.\(^{16}\) So in what follows, I will describe the two views that *are* part of it—one regarding his notion of existence and the other his strategy for best answering the ontological question.\(^{17}\) Let us begin with the first one: the Quinean view of existence.

In the essay Quine tells us of a philosopher, Wyman,\(^{18}\) who struggles with the riddle of nonbeing. First of all, Wyman—like us—doesn’t believe in, for example, a flesh and blood Pegasus; that is, he rightly doesn’t believe in a physical flying horse that was captured by Bellerophon. The riddle then arises from the following considerations. When we say, “Pegasus does not exist” we seem to be contradicting ourselves. For if ‘Pegasus’ refers to nothing at all then we would be speaking of nothing at all and therefore uttering

\(^{16}\)That is, his solution includes the Russellian theory of descriptions and the description theory of names, as well.

\(^{17}\)Of course, in presenting the principles of ontological consistency and commitment, I have already begun to present his strategy.

\(^{18}\)Actually there are two imagined philosophers (the other being McX), but only Wyman will be considered here.
nonsense. Surely we must be talking about something when we use the name ‘Pegasus’. As Quine puts the riddle, “Nonbeing must in some sense be, otherwise what is it that there is not?” And his way of solving the riddle depends in part on his views of existence. And these views will help us to see how Quinean meta-ontology interprets the ontological question.

Consider what Wyman (who represents what Quine believes is Meinong’s position) says in response to the riddle of nonbeing. According to him, ‘Pegasus does not exist’ means ‘Pegasus is not actual’. But that doesn’t seem to help since we must—according to the riddle—be talking about something when using ‘Pegasus’, and we’re still using ‘Pegasus’ as before. But here is how Wyman solves the riddle of nonbeing: he believes that although Pegasus is not actual, Pegasus still is. That is, he thinks that there is a difference between existence and being.\(^{19}\) Whatever this could mean, it implies this much: there can be something that doesn’t exist. Riddle solved.

But according to Quine, Wyman “is one of those philosophers who have united in ruining the good old word ‘exist’” by limiting its use to only actual things. For, according to Quinean meta-ontology, being just is existence. To say that there are winged horses is to say that winged horses exist. That seems obvious. But, van Inwagen notes, it may not seem as obvious when we consider other examples.

Suppose I am discussing someone’s delusions and I say, “There are a lot of things he believes in that do not ex-

\(^{19}\)Of course we get ‘being’ from ‘is’ by noting that ‘is’ is a form of the verb ‘to be’.
ist.” On the face of it, I appear to be saying that there are things—the poison in his drink, his uncle’s malice, and so on—that do not exist. Perhaps someone who reflects on this example will conclude that it is not obvious that to be is the same as to exist. (van Inwagen 2001c, p. 15)

To those who think that it’s not so obvious that being is the same as existence, does van Inwagen—who believes that being is the same as existence—offer an argument to that effect? Not exactly. But that’s because he believes that the only way to argue against the distinction between existence and being is to examine and refute every example of purported non-existence objects. And there is, presumably, an analogous limitation for those who wish to argue for the distinction. And neither side can be expected to do that. But the general methodology for providing evidence against the distinction is this: for every example that Wyman gives of there being a nonexistent object, the Quinean will respond in one of two ways: “That does too exist,” or “There is no such thing as that.”\(^{20}\) For the “delusion” sentence above the Quinean would say—he does say—

There is no nonexistent poison in the paranoid’s drink.
There is no such thing as his uncle’s malice. In sum, there are no things that do not exist. (van Inwagen forthcoming)

So although there’s no argument against the distinction, he offers evidence against it, to counter Wyman’s own evidence for it. (Quine himself, though, simply gave Wyman the word ‘exist’, satisfying

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\(^{20}\) van Inwagen forthcoming.
himself with using only ‘is’.)\(^{21}\)

Let’s not forget the forest as we are considering the trees. Could
a distinction between being and existence help the concretist avoid
commitments to abstract objects? No. As Terrence Parsons points
out, “Meinong held that abstract things never exist (they are the
wrong sort of thing to exist); instead, some of them have a kind of
being called subsistence.”\(^{22}\) The Meinongian-type view will not help
those who want to avoid commitment to abstract objects, because
concretists will typically be just as uncomfortable with the subsis-
tence of abstract objects as they will with their existence. As Quine
says: “Wyman’s overpopulated universe is in many ways unlovely.
It offends the aesthetic sense of us who have a taste for desert land-
scapes.”\(^{23}\) Rather, the point of discussing Wyman’s view is to use it
as a foil to explain what Quineans mean by the ontological question;
and what one means by the ontological question is part of one’s meta-
ontology. And we are interested here in Quinean meta-ontology.

Quineans go further regarding the meaning of ‘exists’ and ‘to be’.
Not only are ‘exist’ and ‘being’ identical in meaning, each has only
a single sense.\(^{24}\) If this is correct, we cannot speak of, say, differ-

\(^{21}\) Terrence Parsons offers his own evidence for the distinction. He says that
we are inclined to say both ‘There are winged horses—Pegasus, for example’ and
‘There are no winged horses’—and without contradiction. The latter, he says,
means the same as ‘No winged horses exist’ and therefore the former must not
mean ‘Winged horses exist—Pegasus, for example’. But this is wrong for the
simple reason that the first sentence is false to begin with. Or so it seems to me.

\(^{22}\) Parsons 1980.

\(^{23}\) Quine 1963a, p. 4.

\(^{24}\) van Inwagen 2001c, pp. 16ff.
ent “modes” of existence—“Pegasus exists in mythology”, “Sherlock Holmes exists in fiction”, or “numbers exist in mathematics.”\(^{25}\) As Quine says,

> If Pegasus existed he would indeed be in space and time, but only because the word ‘Pegasus’ has spatio-temporal connotations, and not because ‘exists’ has spatio-temporal connotations. If spatio-temporal reference is lacking when we affirm the existence of the cube root of 27, this is simply because a cube root is not a spatio-temporal kind of thing, and not because we are being ambiguous in our use of ‘exist’. (Quine 1963a, p. 3)

The difference between numbers and fictional characters and you is not found in the way these things exist; rather the differences are found in what these objects are like.

Here is a reason why Quineans might think that ‘existence’ (and therefore ‘being’) is univocal. In fact, it is a reason why one Quinean does think this. Van Inwagen provides the following line of evidence. Notice that we do not think that different systems of numbers are needed to count different kinds things. More exactly, number words—like ‘six’ or ‘forty-three’—mean the same things no matter what kind of objects they count. He says, “The very essence of the applicability of arithmetic is that numbers may count anything: if you have written thirteen epics and I own thirteen cats, then the number of your epics is the number of my cats.”\(^{26}\) “But,” he claims, “existence is closely tied to number.” When we say that witches don’t exist (or that there are no witches) we mean something like

\(^{25}\)Parsons 1980, p. 10–11.

\(^{26}\)van Inwagen 2001c, p. 17.
the number of witches is zero. When we say that aliens exist (or that there are aliens) we mean something like the number of aliens is greater than zero. So the “univocacy of number and the intimate connection between number and existence should convince us that there is at least very good reason to think that existence is univocal.”

The Quinean view of existence gives us a better understanding of what the Quinean interpretation of the ontological question is. For one thing, ‘What should we believe there is?’ means ‘What should we believe exists?’ Furthermore, there is only one thing that each of these mean regardless of the type of object to which they are applied. One sense of ‘is’/‘exists’ for all!” We can now see that Quine was being consistent with his own view of existence and being when he said, as we noted at the beginning of Chapter 1, that the ontological question

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\text{can be answered, moreover, in a word—‘Everything’—and everyone will accept this answer as true. However this is merely to say that there is what there is. (Quine 1963a, p. 1)}
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But we can now also see one of the reasons this issue has stayed alive down the centuries, as he also said: some philosophers think that there’s a different question, namely, ‘What should we believe exists?’

But the Quinean believes that everything is and that everything

\[27\text{van Inwagen 2001c, p. 17. However, Joongol Kim thinks that numbers are modes of existence: “To say that there are } n \text{ } F \text{s is really to say that } F \text{s exist in the mode of } n. \text{” (Kim 2004). I do not pretend to understand this, but Kim will not think that this close connection between number and existence—which he cheerfully acknowledges—is evidence for the univocality of ‘exists’.}\]
exists and that saying so is saying one and the same thing. And this belief simplifies—and more importantly clarifies (if he is correct)—both the ontological question and the best method for answering it.

Let us quickly take stock of what we have thus far. Quinean meta-ontology is built upon the principle of ontological consistency, which says that we should believe in those objects that are required to make our beliefs true (or else give up those initial beliefs). In order to take this normative principle seriously, we will need to determine as best we can our ontological commitments.

2.3 Back to Consistency and Commitment

Given the principle of ontological consistency, along with the fact—if it is a fact—that ‘there is’ and ‘there exists’ mean the same thing and apply equally to everything, we can now clarify the principle of ontological commitment:

(P2') If one can logically deduce ‘There exists an object that is a such-and-such’, schematically speaking, from any of one’s beliefs, then one is committed to the existence of a such-and-such.\(^{28}\)

\(^{28}\)There are problems with this formulation, problems that I’m not sure how to solve. For example, if I believe a contradiction, then anything follows from that. Or if certain abstract objects necessarily do not exist—they are in some sense “impossible” objects—then every one of my beliefs entails that abstract objects do not exist. I’d like to find a general formulation that precludes such cases because that’s not really what the Quinean has in view here. But recall what generated our principle: the notion of consistency. I trust that we all think that this is an important epistemic virtue and that—all things being equal—we’d rather have it than not. Now it is well know in epistemology circles that a similar notion (if it is a different one)—namely, coherence—is notoriously difficult to characterize in any precise yet universal way. But coherence is certainly not an epistemic virtue that is any less desirable because of that. So too, consistency;
(Of course if one’s belief just is of the form ‘There exists an object that is a such-and-such’—let us call this the *schematic ontological commitment* sentence—then one is trivially committed to the existence of a such-and-such.) Now, taking what I called the *ontological commitment step* is simply to follow (P2'); it is to take the first step in the Quinean method of answering the ontological question.

To be sure, in a given case, whether one really *can* logically deduce a sentence of the form ‘There exists an object that is a such-and-such’ (or equivalently, whether the existence of an object really *is* required to make a belief true), will often be a matter of debate. (In fact, as we’ll see, *this is the most important aspect of the debate over what there is*, given Quinean meta-ontology.) In any case, (P2') does not say that the process of logically deducing a belief of the form ‘There is an object that is a such-and-such’ is a mechanical procedure. On its face, the principle of commitment doesn’t seem like it should be any more controversial than the principle of consistency, (P1). But this is appearance only.

Before considering where there are legitimate points of controversy, we should be careful not to read anything into (P2') that isn’t there. Notice some of the things that aren’t there. For one thing, the principle doesn’t say that my initial beliefs must *be* true. I pointed this out earlier. I also said that being committed to the existence of an object does not mean that the object in fact exists. It may or may not. That will depend on whether the initial belief(s)—the and so too something like the principle of ontological commitment.
belief(s) which required the thing to exist—are true. (It is consistent with the principle to believe that we can’t determine whether something in fact exists; recall Quine’s own belief in the inscrutability of reference.) Whether the object in fact exists will also “depend” on whether ‘There is an object that is a such-and-such’ really is logically deducible from the belief(s) in question.

Neither does (P2′) say whether I should believe in such-and-such’s. That is, it does not, in itself, answer the ontological question. For one thing, as we saw, I may not like the fact that I’m committed to such-and-such’s, and so choose—if I am able—to discard the belief(s) that so committed me in the first place.

Let us now look at where controversy over (P2′) is understandable. Notice that (P2′) not only depends upon the principle of ontological consistency but also on the two main theses regarding existence. These were, recall,

(E1) existence is the same as being, and
(E2) ‘to exist’ (and therefore ‘to be’) is univocal.\(^{29}\)

But we also saw that (E1) and (E2) are controversial. Meinongians (and neo-Meinongians like Terrence Parsons) believe that there are things that do not exist, that existence is not the same as being. And (E2) is denied by, for example, those folks who think that different objects can exist in different “modes” (recall Joongol Kim and,

\(^{29}\)I should also add that van Inwagen thinks that there is another thesis regarding existence which is crucial to Quinean meta-ontology: that existence is not an activity, “like breathing, only quieter” as Austin said (van Inwagen 2001c, p. 15). However, I cannot see how this is critical to Quinean meta-ontology.
again, Parsons). In the next chapter we will see that (E2) is closely involved in debates over the proper view of quantification. And debates over the proper view of quantification are so prominent—and so disorganized—that I will devote an entire chapter on them.

Again, taking the ontological commitment step is not, in practice, always simple. Or it might be better to say that there is a fair amount of disagreement over the results of taking it. Recall that I said it is often a matter of considerable philosophical debate whether the existence of an object really is required for the truth of a sentence. And I said that this is the most important aspect of the debate over what there is, given Quinean meta-ontology. But aside from (E1) and (E2), we haven’t seen much that is controversial about Quinean meta-ontology. What makes agreement over the results of following (P2′)—of taking the ontological commitment step—so difficult to attain? Well, of course part of the difficulty lies in disagreement over (E1) and (E2). But difficulty is also due to disagreement over (again) the proper view of quantification. All the more reason to focus on it.

Before I conclude this chapter, notice that neither the schematic ontological commitment sentence nor any specific commitment sentence says much about what the “something” is like (although it is not silent on the matter, as we’ll eventually see). Let’s consider an example to illustrate this. Imagine that my beliefs imply the following:

(A) There is an object that is a property (whatever that is).
Forget issues like whether this really is implied by beliefs or whether this is sentence is true. Notice that this sentence—by itself—doesn’t really give us much of an idea of what the object is like. To be sure, it is a property. But what is a property? Other than that it’s an object, the sentence doesn’t really say. We may, of course, have certain ideas about what they are like (presumably we’ve used the term before; we didn’t coin it). But we’d like to have a more thorough “philosophical” understanding of properties. That is, (A) doesn’t help us to develop what van Inwagen calls a “theory of properties” by which he means “some sort of specification of, well, the properties of properties.”  

And although discovering that I’m committed to an object that plays the property role is an essential step forward in answering the ontological question, I don’t even know, for example, whether properties are abstract or concrete. Trying to specify what properties are like is part of the second step of Quinean meta-ontology: the ontological specification step. We’ll address that step in Chapter 4.

2.4 Conclusion

So then, a large part of Quinean meta-ontology consists in a call for clarity and order, insofar as clarity and order are possible in our believings. Van Inwagen puts it a bit stronger, however.

All ontological disputes in which the disputants do not accept Quine’s strategy of ontological clarification are

\(^{30}\)van Inwagen 2004, p. 125.
suspect. If Quine’s “rules” for conducting an ontological dispute are not followed, then—so say those of us who are adherents of Quine’s meta-ontology—it is almost certain that many untoward consequences of the disputed positions will be obscured by imprecision and wishful thinking. (van Inwagen 2001c, p. 31)

Quinean meta-ontology says, via the principle of ontological commitment, that we should try to be as scrupulous as possible when it comes to the consistency of our believings.

But a call for consistency is only part of Quinean meta-ontology. It also consists of controversial views about the notion of existence. Yet this is not the only source of controversy, as I said. There is considerable debate over the Quineans’ view of quantification (we will see that the existence theses are intimately connected to views on quantification). Disagreement over quantification will, in turn, effect the outcome of the ontological commitment step. Different views of quantification lead to different logical implications from sentences involving quantificational phrases like ‘there is’ and ‘there are’. And so we are not finished with our presentation of Quinean meta-ontology. Quantification will have to be addressed first. And this brings us to the topic of our next chapter.
3.1 Canonical Notation, Validity, and Rules of Inference

We have seen the purpose and scope of the ontological commitment step: it is the first step in answering the ontological question and one in which we merely determine whether objects of any sort must play certain roles in language and thought (part of this role is that they are the referents of pronouns of certain sentences). We have also seen that taking the ontological commitment step is really nothing more than adhering to the principle of ontological commitment. This principle, in turn, is the result of certain theses regarding existence and the principle of consistency. And this is the essence of Quinean meta-ontology: ruthless consistency combined with certain controversial views about the notion of existence. But anyone reading this will no doubt be familiar with what is sometimes called Quine’s “criterion of ontological commitment:” to be is to be the value of a variable.\(^1\) Why have I not mentioned this famous little phrase before now? The primary reason is that variables are not essential to Quinean meta-ontology. This is because the “canonical

\(^1\)See Haack 1978, p. 43, for example.
notation” of first-order logic (plus identity) is not essential. Helpful and important, yes; essential, no.

That said, the supposed role of canonical notation in Quinean meta-ontology has drawn a lot of flak.

So let us examine both why canonical notation is not essential and why it is helpful. Let us look first at why putting ordinary-language sentences “into” canonical notation is helpful in answering the ontological question. Recall that the principle of ontological commitment (P2′) is the formulation of a call for clarity and precision. And one of the purposes for putting sentences into canonical notation is also to gain clarity and precision. Indeed, that’s the primary benefit of formal logical systems in the first place. For one thing, formal languages are developed in order to regiment—to increase the precision, clarity and simplicity of—our intuitive notions of validity. That is, they allow us to more accurately and easily investigate valid inferences among sentences. In the case of first-order logic, this is done in part with truth-functional connectives, quantifiers, variables, predicate letters, and parentheses. As van Inwagen explains,

The odd-looking, stilted, angular rewriting of our lovely, fluid English tongue that is the quantifier-variable idiom has only one purpose: to force all that lovely fluidity—at least insofar as it is a vehicle of the expression of theses involving universality and existence—into a form on which a manageably small set of rules of syntactical manipulation (rules that constitute the whole of valid reasoning concerning matters of universality and existence) can get a purchase. (van Inwagen 2001c, p. 21)

That is, translating an ordinary-English sentence into canonical no-
tation puts it into a form that more clearly reveals what follows from it—at least according to a certain set of rules that we agree upon.\(^2\)

The reason, then, that canonical notation is helpful for Quinean meta-ontology—and so the reason why Quine speaks so often of ontology in terms of it—can be seen when we recall how we determine whether there must exist objects to make our beliefs true. The principle of ontological commitment suggests that, to do this, we see what sentences of the form ‘There is an object that is a such and such’ are implied by our beliefs. Valid inference is at its heart. And valid inference, it might be plausibly claimed, is the primary subject of logic—the primary subject of formal logical systems. So if determining which inferences are valid—and what the logical consequences of our beliefs are—is made easier by rewriting sentences in canonical notation, then it seems prudent to do so.

As far as validity goes, the “manageably small set of rules of syntactical manipulation” does not, of course, try to capture all of the nuances of informal arguments. As Susan Haack says,

> if formal logic faithfully followed informal arguments in all their complexity and vagueness there would be little point in formalisation; one aims, in formalisation, to generalise, to simplify, and to increase precision and rigour. (Haack 1978, p. 33)

But a good formalization—its formal rules of inference—will \textit{largely} capture our “folk” notions of validity for many inferences. But for

\(^2\)Of course, there might not be a single, objective “form” waiting to be uncovered. Van Inwagen calls this the “unique translation” problem. See van Inwagen 2001c, p. 23ff.
the cases in which these rules do not capture our notion of validity we’ll need to proceed without their help.

I won’t discuss the notion of validity further, however,—intuitive or formal—since validity and the formal rules of inference that try to capture it are not really a point of contention when it comes to the discussion about whether Quinean meta-ontology specifies the best way to answer the ontological question. The primary point of contention about the Quinean’s use of canonical notation is what this notation means insofar as individual assertions are concerned. If agreement over what the formal notation means is not reached, then neither will agreement over the translations of English sentences into this idiom.

3.2 The Meaning of Canonical Notation and Individual Assertions

We have just been considering the purpose of canonical notation—helping us to study inferences among our assertions, among groups of assertions. It does this by putting individual natural-language sentences into a form that allows us to use our formal rules of deduction upon them. But van Inwagen reminds us that there is a difference between the purpose of the quantifier-variable idiom and what the idiom means. He says that

while it is these rules [of syntactical manipulation] that provide the motivation for our having at our disposal such a thing as the quantifier-variable idiom, they are not the source of the meaning of that idiom, the meaning,

\textsuperscript{3} Assume that a single assertion is the limiting case for such a “group.”
that is, of sentences containing quantifiers and variables. The meaning of the quantifiers is given by the phrases of English—or of some other natural language—that they abbreviate. (van Inwagen 2001c, p. 21)

Although he specifically mentions quantifiers and variables,⁴ the same can be said of the connectives and predicate letters (as well as the parentheses presumably taken over from mathematics). The point now is that the regimenting and simplifying devices of predicate logic are by and large abbreviations of natural language. Quine believed also, saying that “The artificial notation of logic is itself explained, of course, in ordinary language.”⁵ He goes on to say that to

paraphrase a sentence of ordinary language into logical symbols is virtually to paraphrase it into a special part still of ordinary or semi-ordinary language; for the shapes of the individual characters are unimportant. So we see that paraphrasing into logical symbols is after all not unlike what we all do every day in paraphrasing sentences to avoid ambiguity.⁶

This is the primary reason that canonical notation is not essential to Quinean meta-ontology:⁷ anything that can be said using canonical

⁴See also Haack 1978 p. 31 where she discusses Prior’s ‘tonk’.

⁵Quine 1960, p. 159.

⁶Quine 1960, p. 159, emphasis added. He also says, “Parentheses and variables may survive such expansion, for they do not always go over into ordinary language by easy routine. Commonly also the result of such mechanical expansion will display an extraordinary cumbrousness of phrasing and an extraordinary monotony of reiterated elements; but all the vocabulary and constituent grammatical constructions will be ordinary.” (Quine 1960, p. 159)

⁷Indeed Quine doesn’t use it at all in “On What There Is.” Instead he uses sentences like ‘Either each thing failed to write Waverly or two or more things wrote Waverly’.
notation can be said without using it, even if not with the same clarity and precision.\(^8\)

As far as the meaning of these formal devices goes, one might object to the Quinean claim that they are simply abbreviations for words we already understand. For one thing, the “regimentation” of terms of natural language—for example, ‘some’, ‘all’, ‘and’, ‘if-then’, ‘or’ and ‘not’—don’t fully capture what these terms actually mean in natural language. And so it seems that they really mean something else, even if not entirely. They don’t seem to stand for—strictly speaking—words we already understand.

The Quinean would grant this, strictly speaking (recall Quine’s comment regarding “semi-ordinary” language in the above quotation). This is why canonical notation was said to be a regimentation of natural language devices in the first place. The formal devices of predicate logic are “tidied-up”\(^9\) versions of their natural language counter-parts. These devices are introduced to impart order, clarity, and simplicity that our natural language sentences might not have. This is their point. As far as Quinean meta-ontology goes, this fact

\(^8\)The converse is certainly not true. We cannot translate everything we want to say from ordinary English to canonical notation. This is well known, but see, for example, George Boolos’ “To Be is to Be a Value of a Variable (or to Be Some Values of Some Variables)” (Boolos 1998) where he gives examples like, ‘Most democrats are left-of-center’ or the Geach-Kaplan sentence ‘Some critics admire only one another’. (However, Alvin Plantinga believes that there is a way to translate the last example into first-order notation). Our current system of formal notation does capture all of the logical constants used in pure mathematical inference, as was pointed out to me by van Inwagen. And this should not be surprising, he said, since such notation was developed primarily by mathematicians!

\(^9\)Haack 1978, p. 10.
has typically been less contentious for the truth-functional connectives and predicate letters than for quantifiers and variables. Let us look at the quantifiers and variables, then.

The quantifier-variable idiom is what Quineans claim does the most substantivc clarificatory work in answering the ontological question. But according to them this is all the idiom does since it merely clarifies what we already mean by our ordinary-language quantification and pronominal devices.

The appeal to canonical notation of quantification has only this function in Quine’s meta-ontology: the canonical notation is a sharpening of ordinary quantificational devices, and, if one both affirms and denies the existence of something, putting one’s discourse into the canonical notation will invariably bring this contradiction into sharp focus—or uncover it, for it may be hidden. (van Inwagen forthcoming)

For one thing, quantifiers “are simply a regimentation of the ‘all’ and ‘there are’ of ordinary English.”¹⁰ For another thing, variables—which stand for ‘something’ and ‘it’ in ‘There exists something such that it is a such-and-such’—are at bottom regimented third-person-singular pronouns. The phrase ‘*x is a dog*’, for example, means the same as ‘it is a dog’ (and so the quantifier phrase ‘∃*x*’ means ‘There exists something such that’ or ‘There exists at least one thing such that’).¹¹

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¹⁰van Inwagen forthcoming.

¹¹If this is all correct—if the quantifier-variable idiom is just an abbreviation for the quantification and pronominal devices of ordinary language then Quine’s “criterion” is really: “to be is to be in the range of reference of a pronoun.” (Quine 1963a)
As I said, there is considerable controversy surrounding this view that the quantifier-idiom of first-order logic—of canonical notation—is merely a regimentation of the quantification and pronominal devices of ordinary language.\textsuperscript{12} But as I also said, the controversy typically doesn’t involve the rules of inference such as \textit{modus ponens} and existential generalization that “work on” the canonical notation, insofar as these are independent of the meaning of the quantifier-variable idiom.

Neither does controversy surround the the principle of ontological commitment (P2'); nor is there controversy over the principle of ontological consistency (P1) on which it depends. Part of this is because presentations of Quinean meta-ontology have not made these principles explicit. But there is a more important reason: these principles aren’t—and shouldn’t be—controversial. Rather, as we’ll see in later chapters especially, objections to Quinean meta-ontology center rather on the “translation”—or what I’ll call replacements—of assertions into canonical notation.

But even this is not quite right since it is not \textit{canonical notation} but \textit{quantification} that is essential to Quinean meta-ontology (in so far as it is essential to ordinary language). Many of the questions of whether this meta-ontology is appropriate for answering the ontological question are based on questions of what the English quantificational idioms (‘there exists’ and ‘there are’) mean. When we say, “There are dogs” we are “quantifying over” dogs, as philoso-

\textsuperscript{12}See the section below on the so-called “substitutional” interpretation of the quantifier-variable idiom.
phers and logicians say. And so we quantify over things without using the canonical notation of quantification. This isn’t surprising since we can also—as van Inwagen points out—“do arithmetic without using the canonical notation of arithmetic.”

\[7 + 5 = 12\] can be said using ‘seven plus five equals twelve’. The closeness of meaning between, say, ‘+’ and ‘plus’ is on a par with that between ‘\(\exists\)’ and ‘there exists/there are’. Furthermore, says Inwagen,

> Like speaking prose, quantifying is something we have all been doing for most of our lives. Quantifying, indeed, is an essential part of speaking prose—and you can’t get away from it in poetry, either. (van Inwagen forthcoming)

The debate then, so I claim, should really be centered more around the meaning of our ordinary-language assertions (including the meaning of ‘exists’ and ‘to be’) and around what these assertions really imply. In other words, the debate should focus on how we translate our ordinary-language assertions into forms that better reveal what follows from them. And these new forms are often just as clear—or nearly so—without using canonical notation such as ‘\(\exists\)’, ‘\(\forall\)’, and the other formal notational devices. The debate, then, should surround the replacing of our original assertions with ones that are supposedly clearer and more precise—in particular, around what constitutes a proper replacement, even if the replacement does not involve canonical notation.\(^\text{14}\) But before discussing the centrality of replacement

\(^{13}\)van Inwagen forthcoming.

\(^{14}\)That being said, I will sometimes use canonical notation for the purpose for which the Quinean says it is supposed to be used: to abbreviate ordinary language devices of existence and universality.
(or translation) to the ontological commitment step, I want to briefly address an important objection to Quinean meta-ontology that is related to the interpretation of our ordinary-language sentences. In particular, I want to clarify the objection that comes from those who advocate the so-called substitutional interpretation of the quantifier-variable idiom.15

3.3 The Substitutional Interpretation of Quantifiers

We saw that the Quinean interprets the existential quantifier of first-order logic as an abbreviation of ‘there is’, ‘there exists’, and ‘some’. There is a competing interpretation, however, that is appealed to in an attempt to show that Quinean meta-ontology is an improper strategy for answering the ontological question. This contender is the substitutional interpretation.

On the substitutional interpretation, according to Haack, ‘∃xFx’ means ‘Some substitution instance of ‘F...’ is true’.16 This interpretation, however, suggests that ‘∃xFx’ means that there is something of a certain form, the schema which is presented by ‘F...’, that is true. That is, one obvious way of interpreting ‘Some substitution instance of ‘F...’ is true’ is ‘There exists a substitution instance of ‘F...’ such that it is true’, with the domain merely limited to whatever objects substitution instances are. If so, then the substitutional

15For example, see Orenstein 1978. Van Inwagen suggests that Orenstein is representative of a tradition that can be traced back to Ajdukiewicz.

16Haack 1978, p. 49. We will see below that this may not be the typical substitutionalist’s view.
interpretation seems to be merely a special case of the “objectual” interpretation.

Let me make a side comment. It is an interesting question what criterion one would use to determine the correct meaning of the canonical notation of quantification.\(^1\) I might merely note here that at least one of the founders of the quantifier-variable idiom (Frege) held a view of the relation between quantification and existence similar to that of Quine and van Inwagen. And this view is captured by the objectual interpretation. In particular, according to what we might call the “Brentano-Frege-Quine” view of the quantification/existence relation, ‘Some substitution instance of ‘\(F\ldots\)’ is true’ just means something like what I proposed above. This historical consideration—such considerations are always dicey—might be worth considering.

But let us assume for a moment that the substitutionalist has given the proper interpretation of the quantifier-variable idiom and that it doesn’t depend on the objectual interpretation. And let us also temporarily assume that canonical notation is essential to

\(^1\)Van Inwagen believes that we should not consider this debate as one in which there is a single quantifier, ‘\(\exists\)’, in which the disputants lay claim to its correct meaning. Rather, he seems to believe that it is rather obvious that there are two distinct variable-binding operators: the substitutional operator and the objectual operator. See van Inwagen 2001\(^\text{b}\), p. 32. The debate then seems to become one about which one we should be using. I doubt that this way of construing it is obvious, if for no other reason that both sides of the debate use the same notation and this makes it seem as if there is competition for it. But there is reason to think that even van Inwagen does not believe that this is the real nature of the debate. He has said, “I want to give an account of quantifiers and variables as they appear from the perspective afforded by Quine’s meta-ontology. It will be clear that if this account is correct, then...” (van Inwagen 2001\(^\text{c}\), p. 18–19, emphasis added.) It would seem that there is a single correct interpretation of quantifiers, contrary to what he has said earlier.
Quinean meta-ontology. Even this would not show that Quine’s strategy is not an adequate strategy for answering the ontological question. (At least if the substitutionalist’s objection is construed as the claim that Quine’s meta-ontology has gotten the meaning of ‘∃xFx’ all wrong to begin with.) The reason is that the Quinean can merely stipulate that he is using a new and innovative formal language all his own, one he calls “onto-logic.” In onto-logic ‘∃^O’ and ‘∀^O’ (the superscript ‘O’ standing for ‘onto’ to ensure that there are no misunderstandings) are nothing more than abbreviations of the ordinary phrases ‘there exists’ and ‘all’, and they bind variables that are merely abbreviations for third-person singular pronouns. In fact, this new organon works exactly as the Quinean used to think (alas, mistakenly) that our popular first-order notation worked. Onto-logic is perfect for clarifying our ordinary-language sentences regarding existence and universality. This formal language, says the Quinean, is what should be used for Quinean meta-ontology.

Whatever the substitutionalist’s reply might be, this much seems clear: she couldn’t reply that the new quantifier-variable idiom doesn’t really capture our ordinary-language devices regarding existence and universality, for that’s exactly what onto-logic was devised to do.

She could, however, concede that ‘∃xFx’ adequately captures ‘there are’, etc. Alternatively, she could concede that canonical notation is not essential to the strategy. If she did either of these she could go on to claim that the ordinary-language phrases of quantification are themselves ambiguous, their meaning sometimes given by
the meaning that the substitutionalist formerly ascribed to ‘∃xFx’ (and so ‘∃xFx’ is also ambiguous).\textsuperscript{18} Consider, for example, the sentence

(B) There are gods worshiped by the Greeks which were worshiped by the Romans under different names.\textsuperscript{19}

This sentence is true and logically implies that there are such gods. But of course these gods don’t exist. We saw how the Meinongian would handle this. But it seems that our imagined substitutionalist can account for the discrepancy also. According to her, in this particular case—even if not in all cases—what might really be meant is something like ‘Some substitution instance of ‘x is a god worshiped by the Greeks which was worshiped by the Romans under a different name’ is true.’\textsuperscript{20} In other cases, she would admit, the ordinary objectual interpretation of ‘there are’ would be in play. Let us call such a response the “quantificational ambiguity” response.

But this response, given our earlier considerations, will only work if ‘Some substitution instance of...’ doesn’t entail the existence of substitution instances. But it does, as far as I can see. The substitutionalist’s imagined reply still seems dependent upon the objectual account of quantification.\textsuperscript{21}

\textsuperscript{18}This was pointed out to me by van Inwagen.

\textsuperscript{19}Or ‘Some of the gods worshiped by the Greeks which were worshiped by the Romans under different names.’ See van Inwagen forthcoming.

\textsuperscript{20}One such instance is ‘Hermes is a god worshiped by the Greeks which was worshiped by the Romans under different names’.

\textsuperscript{21}This is only a problem for the substitutionalist who wants her version of quantification to stand independently of the objectual version. I’ll leave that
Let’s consider another problem with substitutional quantification. While considering the substitutionalist’s case against Quinean meta-ontology one of our assumptions has been that she has given us an interpretation of our quantificational devices. That is, we had assumed—with Haack—that the substitutionalist had given us the meaning of these devices. But van Inwagen points out that most substitutionalists, rather than providing us with the meaning of quantificational devices, provide us with only their truth conditions (let us assume that truth conditions alone are insufficient to provide or explain meaning). They say, for example, that ‘∃xFx’ is true if and only if some substitution instance of ‘F...’ is true. The problem that this raises can be illustrated in the following way, according to van Inwagen.

We can easily find a sentence that has the same substitutionalist truth conditions as ‘∃xFx’; namely, ‘Some substitution instance of ‘F...’ is true’. This much the substitutionalist will agree to. However, she denies (contrary to Haack) that ‘∃xFx’ means ‘Some substitution instance of ‘F...’ is true’ (presumably because of the resulting dependence upon objectual quantification). We might wonder, then, just what does ‘∃xFx’ mean? (This question could also be asked about the ordinary-language quantificational devices—at least when they do not have their objectual meaning). The substitutionalist
does not say. And this is why van Inwagen does not understand substitutional quantification: he does not know what the sentences containing the substitutionalist quantifiers mean. Nor, he claims, does the substitutionalist! And that does seem to be a problem for any substitutionalist who offers the above explanation of our quantificational devices (formal or natural). Substitutional quantification is *meaningless*, or at least its meaning remains a mystery.

The substitutionalist might respond as follows, however. She might remind us that Quinean meta-ontology is concerned primarily with the truth conditions of our existential assertions. It is concerned with whether the truth of these assertions require the existence of objects. In our official formulation of the Quinean strategy we did not make use of the meaning of sentences (in fact, Quine was a skeptic with respect to meanings!). And ‘There are gods worshiped by the Greeks which were worshiped by the Romans under different names’ is *made true* by the truth of, say, ‘Hermes is a god worshiped by the Greeks which was worshiped by the Romans under different names’. To be sure, it would be nice to be able to say what the sentence means in addition to what its truth conditions are. But perhaps that’s something we can do without—at least if there are valuable benefits that offset such costs. Even if the substitutionalist account is meaningless, it is not useless. In any case, by adopting this view, the debate between Quineans and substitutionalists would focused on whether take a particular instance of ‘there is’, etc. as

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22 See van Inwagen 2001b.
“objectual” or as “substitutional.”

The “quantificational ambiguity” response has something going for it, I think. To me it seems that ‘there are’, ‘there exists’, and ‘some’ are ambiguous. And this is where Quineans differ. Quineans believe that quantificational devices have only one meaning—or perhaps only one function. We come again to the matter of interpreting our sentences. And recall that I said that the real effort in ontology, Quine-style, should be focused on interpreting our ordinary language sentences.23 But I think that we should be able to give more than truth conditions for our sentences. We should be able to say more about what these sentences are doing in our discourse. Presumably they mean something. At the very least we should be able to find suitable replacements for them that eliminate any ambiguity they might have. Let us now look more closely at the way in which replacing one sentence for another less ambiguous one is important in the debate over ontology.

3.4 Replacement Sentences

Of course an example of this process of “replacing” is close at hand. Let us return to the riddle of nonbeing. In “On What There Is” Quine replaces ‘Pegasus does not exist’ with another sentence in order to avoid having to say ‘There exists something that doesn’t

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23This includes not only determining whether the substitutional or objectual meaning of our ordinary quantifiers is in play but also whether there’s a being/existence distinction that’s intended. I tend to doubt that there is such a distinction, but I’m not entirely sure.
exist'. That is, he replaces ‘Pegasus does not exist’ with a sentence that does not imply ‘There exists something that doesn’t exist’. Here is a replacement that will work according to Quine:

\[(C) \text{ Either each thing is not a winged horse that was captured by Bellerophon or else two or more things are each a winged horse that was captured by Bellerophon.}\]^{24}

Leaving aside the details of how he might arrive at this sort of replacement, I’ll just point out that Quine can accept it because he holds two controversial views regarding proper names and descriptions: Russell’s so-called theory of descriptions and the description theory of proper names. Again, neither of these two views are a part of Quinean meta-ontology.\(^{25}\) The point, however, is that Quine would presumably accept this replacement as adequate—and for controversial reasons, reasons that are not essential to Quinean meta-ontology.

What is essential to Quinean meta-ontology is the process of replacement in general. Its official use is to make clear those ordinary assertions which are ambiguous. But we can see why this raises eyebrows. In the above example Quine replaces the original sentence in order to avoid a conclusion he doesn’t like. And since he’s got an axe to grind, so to speak (that is, a conclusion to avoid), we might be tempted to think that he’s trying to pull one over on us—a kind of

\[^{24}\text{See Quine 1963a, p. 7.}\]

\[^{25}\text{To be sure, the claim that this sentence does not refer to any nonexisting thing also stems from the general notion of existence and quantification that Quine receives from Brentano and Frege. But again this is part of Quinean meta-ontology.}\]
linguistic sleight of hand. Furthermore, the replacement looks very little like the original. Is this really an adequate replacement? Well, whether the replacement is adequate is not important here—not yet. What is important now is that replacing original sentences with new ones is where much of the philosophical action is.

This procedure—the replacing of statements with other statements in order to make or avoid some philosophical point—is not wholly unfamiliar to philosophy in general. Ryle, for example, begins his essay “Systematically Misleading Expressions” with

Philosophical arguments have always largely, if not entirely, consisted in attempts to thrash out ‘what it means to say so and so’.

Whether this is hyperbole or not, it is certainly a truism that philosophers are concerned with the meanings of words, phrases, and sentences. Linguistic clarity and precision are two cardinal virtues in philosophy. Ryle goes on to describe a curious thing about many of our ordinary statements.

There are many expressions which occur in non-philosophical discourse which, though they are perfectly clearly understood by those who use them and those who hear or read them, are nevertheless couched in grammatical or syntactical forms which are in a demonstrable way improper to the states of affairs which they record (or the alleged states of affairs which they profess to record). (Ryle 1951, p. 13)

The picture seems to be this: In the ordinary business of life we say things that upon further reflection seem to have rather surprising implications. For example, we seemed to be committed to the existence
of Pegasus (or that Pegasus is) by our statement ‘Pegasus does not exist’. Such surprising results often conflict with certain very strong intuitions (in the present case, our intuition that there are no winged horses) and thereby give rise to philosophical problems. We saw this in Chapter 1.

Often, the way to avoid these surprising conclusions—if such conclusions are untoward—is to argue, show, or merely claim that the original statement can be replaced by another one, one that doesn’t imply something untoward. That is, as Ryle says,

> Such expressions can be reformulated...into expressions of which the syntactical form is proper to the facts recorded (or the alleged facts to be recorded). (Ryle 1951, p. 14)

Is this what Quine did? Does the syntactical form of his replacement properly record the facts? That’s debatable. And that’s the point.

This replacement procedure has become known as “paraphrasing,” especially in the context of avoiding ontological commitments. (I’m calling the genus of this process “replacing,” paraphrasing is only one of its species. To find a paraphrase implies that one must find a synonymous sentence and synonymy is just one of the various criteria for an adequate replacement sentence).

In any event, replacing is not peculiar to Quinean meta-ontology even if it is central to it.

So then, what warrants such replacements? What are the criteria for correct replacements? And what do philosophers think that replacements are doing? Ryle called it “reformulating” and determining what the original sentence “really means.” Sometimes he
also calls it “restating” the original sentence. Other philosophers, as I said, speak of paraphrasing, by which some mean finding a synonymous sentence. Others reject the criterion of synonymy for replacements. Still others say that the replacement sentence must reveal the “logical form” of the original, which is hidden by its misleading grammatical form. Russell speaks like this. In any event, different philosophers often have different views about proper replacement criteria.

What do Quineans think is the correct criterion for replacements? There is no single answer. Quineans agree that replacing sentences are a part of the procedure for clarifying and avoiding ontological commitments but they do not agree on the exact criteria for proper replacements. Quine himself (who at times calls this replacing ‘regimentation’, ‘paraphrasing’, ‘substitution’, ‘reparsing’, ‘explaining the meaning of’) had a rather liberal restriction on replacement sentences. In general he says, “A paraphrase into canonical notation is good insofar as it tends to meet needs for which the original might be wanted.”26 More specifically,

We do not claim synonymy. We do not claim to make clear and explicit what the users of the unclear expression had unconsciously in mind all along. We do not expose hidden meanings, as the words ‘analysis’ and ‘explication’ would suggest; we supply lacks. We fix on the particular functions of the unclear expression that make it worth troubling about, and then devise a substitute, clear and couched in terms to our liking, that fills those functions. Beyond those conditions of partial agreement,

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26Quine 1960, p. 182.
dictated by our interests and purposes, any traits of the explicans come under the head of “don’t cares.” Under this head we are free to allow the explicans all manner of novel connotations never associated with the explicandum.\textsuperscript{27}

And presumably, this applies for replacements that do not involve canonical notation. Furthermore, van Inwagen has what might be a different criterion for a replacement sentence, depending on how it’s interpreted. He says simply that an adequate replacement (he uses the term ‘paraphrase’) can be used in place of the original. Although we will spend a significant amount of time looking at different criteria for proper replacement sentences, it is important to see that Quinean meta-ontology itself does not specify the criterion.

Neither is it the case, according to Quinean meta-ontology, that even \textit{for a given criterion} a replacement sentence will be acceptable to all those who agree on the criterion. Even if you and I agree that any replacement should be synonymous with the original, we may disagree over whether this criterion is met for a given replacement. And again, this is true whether or not we put our replacement

\textsuperscript{27}Quine 1960, p. 258–59. There is a popular complaint that synonymous replacements cannot be used to avoid ontological commitments: if the original sentence and its replacement are synonymous, and the original commits you to \( x \)’s, then the replacement will also commit you to \( x \)’s since they mean the same thing (and apparently have the same truth conditions). See for example, Alston 1958, Searle 1969, and Melia 1995. But this seems to me a benign complaint in so far as the adequacy of synonymous replacements for avoiding ontological commitments of the original. For it seems that we could also say: if the synonymous replacement does not commit you to \( x \)’s then this shows that the original didn’t either. It merely seemed to. To be sure, it is difficult to say just which ‘version’ of the sentence—the original or its replacement—has priority. And if there is no way to tell, then we \textit{would} have a problem. But this inability would have to be argued for and it’s difficult to see how to do \textit{that}.
sentence into canonical notation.\textsuperscript{28}

Nor—this is a related point—is it part of Quinean meta-ontology that there is an objective underlying logical structure that can be revealed by a translation into canonical notation. For a given sentence there may be any number of ways to put the sentence into canonical notation (at the very least putting an ordinary English sentence into canonical notation can be a progressive one; a sentence can be more or less “in” canonical notation, depending on how much of the ordinary-language devices one wants to replace).\textsuperscript{29} At the same time, Quinean meta-ontology does not imply that all translations are equally acceptable. But the fact remains that there is generally no mechanical way to tell which is better, even if one of them is.\textsuperscript{30}

The nonmechanical nature of the ontological commitment step is clearly portrayed by van Inwagen. In what is a lucid and concise summary of the step, he says,

\begin{quote}
one takes sentences the other party to the conversation accepts, and by whatever dialectical devices one can muster, one gets him to introduce more and more quantifiers and variables into those sentences. (Or, if you will, one gets him to accept new sentences, sentences that come from the sentences he initially endorsed by the progressive replacement of devices and constructions belonging to or-
\end{quote}

\textsuperscript{28}I should point out that disagreements over both the general criterion of replacements and therefore disagreements over particular replacement sentences are the a major source of the differences between Quine’s and van Inwagen’s ontology, despite their general agreement on meta-ontology.

\textsuperscript{29}van Inwagen 2001c, pp. 23ff.

\textsuperscript{30}And so Quine says that “we may reasonably expect the ontic commitment of a theory to remain obscure to the extent that the way to translate the theory into quantificational terms is obscure.” (Quine 1970, p. 92)
ordinary English by devices and constructions belonging to the canonical language of quantification...). If, at a certain point in this procedure, it transpires that the existential generalization on a certain open sentence $F$ can be formally deduced from the sentences he accepts, one has shown that the sentences he accepts, and the ways of introducing quantifiers and variables into those sentences he has endorsed, formally commit him to there being things that satisfy $F$. (van Inwagen forthcoming)

Although van Inwagen presents the step in terms of quantifiers and variables, I hope you can now see that it would apply to ordinary-language replacements just as well, given the Quinean view of the quantifier-variable idiom as largely abbreviations of language we already understand. Notice too that van Inwagen presents the step in the context of a debate; but the step could also be taken by a single person, say one who simply wanted to see what her beliefs commit her to. In any case, the above procedure is certainly not one which could plausibly be described as “mechanical.” It’s actually somewhat messy.\(^\text{31}\)

The source of this messiness is determining what is an acceptable replacement sentence. Van Inwagen points to this issue above when he says, “one gets him to accept new sentences.” This is what the dialectical devices are aimed at: convincing the other party to accept your replacement. Again, it seems to me then that the debate over ontology—among those who adhere to a broadly Quinean meta-ontology—should focus on the issue of what counts as an acceptable replacement sentence. Furthermore, many (but not all)\(^\text{31}\)

\(^{31}\)See the first part of Lewis and Lewis 1970 for an example of this step in print.
philosophers who object to Quinean meta-ontology do so, I think, on the false grounds that Quineans treat the replacement process as a mechanical one, and that there are objective ontological commitments that we can uncover by mechanically putting the sentence into their single canonical form. As we’ve seen, this is a serious misunderstanding of Quinean meta-ontology.

3.5 Conclusion

By addressing the Quinean view of quantification I have now completed my presentation of Quinean meta-ontology. Let’s take a moment to review.

When we do ontology Quine-style we take the ontological commitment step. We do this in order to determine whether our beliefs commit us to things that play a certain role in our discourse. Being a step, it is a procedure, something one does. But we should be careful: the ontological commitment step is not Quinean meta-ontology, it is only dictated by it. Quinean meta-ontology is comprised of

i. theses about existence and quantification,

ii. the normative principle of ontological commitment, and

iii. certain views on the proper use of replacement sentences.

In any event, the ontological commitment step is not the “criterion of ontological commitment.” What is called Quine’s criterion—‘to be is to be the value of a variable’—is fine as far as it goes. That is, it is fine as long as one realizes that it is merely a pithy formulation of Quine’s view of the quantifier-variable idiom: that the notion
of existence is adequately captured by the quantifier-variable idiom and that this notion that it captures is objectual and not substitutional (but recall that these two 'interpretations' apply to ordinary quantification as much as they do to the formal quantifier-variable idiom). By itself, the phrase does not characterize anything essential to Quinean meta-ontology, but only because since canonical notation is not essential to Quinean meta-ontology. However, in conjunction with the thesis that the meaning of the quantifier-variable idiom is given by the ordinary meaning of ‘there exists’ and ‘there is’, it at least points to something essential: the theses on existence that we saw in Chapter 2 and the nature of ordinary-language quantification.

Remember too that in the ontological commitment step we don’t determine what the objects to which we are committed are like. Rather we only determine that there must be objects of some sort in order for the belief(s) in question to be true. Of course, in a sense we do specify what the objects are like, but only to the extent that they are something that make the belief(s) in question true.

Though I said that there are two steps or stages in Quinean meta-ontology—the ontological commitment step which we considered in this chapter and the ontological specification step which we will in the next—the ontological commitment step involves the unique part of Quinean meta-ontology. It is unique in that it takes very seriously the univocality of both ‘exists’ and ‘to be’ as well as their sharing of this single meaning. The specification step isn’t unique because every meta-ontology is going to have to deal with specifying what
things are like. However, the ontological specification step is also “Quinean” insofar as (1) it receives the deliverances of the ontological commitment step with due seriousness and (2) in specifying what an object is like, the Quinean might decide to return to the uniquely Quinean ontological commitment step. In other words, the specification step is Quinean insofar as it is not wholly isolated from the truly Quinean commitment step. “Quine-ness” cannot be contained, so to speak; it colors one’s meta-ontology through and through. And this sort of holism should not be surprising.

In the next chapter we will, among other things, consider the ontological specification step. We will also look more closely at how the process of answering the ontological question might be an iterative procedure. Then we will see how a Quinean meta-ontologist might advance an argument for the existence of abstract objects.
Our general topic here is ontology, the systematic study of what there is. And we have been considering one very influential view about how ontology is to be done: Quinean meta-ontology. As we saw, there are two steps that one performs when doing ontology the way Quinean meta-ontology suggests: the ontological commitment step and the ontological specification step. The first step is unique to Quinean meta-ontology. By taking it I determine whether objects of any sort are required for certain beliefs of mine to be true. That is, I determine whether I can infer from these beliefs some further belief that can be expressed in the form, ‘There is something that is a such-and-such’. We also saw that this “existential” sentence can be translated into canonical notation (that is, ‘∃x such that x is a such-and-such’) but that it need not be; canonical notation is not essential to Quinean meta-ontology despite its helpfulness. Canonical notation is helpful because it may allow us to more clearly express certain beliefs; more particularly, it may allow us to remove or reduce ambiguity from the expression of a belief in order to better reveal its “logical form.” In doing so, we can better see whether
the existence of objects can be inferred from the belief. But again, this can be done without the use of a formalized notation. In any event, we saw that this same sort of translation—which I called *replacing* (as opposed to *paraphrasing* which is just one species of replacing)—could help one *avoid* inferring certain objects from one’s beliefs. Quinean meta-ontology, however, although advocating this process of replacement, does not champion any particular criterion for the adequacy of a replacement.

One of the topics of this chapter is the ontological specification step. In the specification step one tries to determine the *nature* of the objects to which one seems to be committed. Every ontology worthy of the title will include this step to some degree or another, of course; it is certainly not uniquely Quinean. It is not a part of Quinean *meta-ontology*. Yet, we might still legitimately call it “Quinean” insofar as in this step the Quinean will take seriously the deliverances of the uniquely-Quinean first step and may repeatedly return to it.

A second thing I will do in this chapter is develop a “generic” argument for the existence of abstract objects that is importantly founded upon Quinean meta-ontology. I call this argument the *ontological indispensability argument for abstractism*, or the *OIAA*. It is generic in the sense that a number of specific arguments for the existence of abstracta can be seen as taking its basic form; it is the genus under which the species fall. I will look at two species here: van Inwagen’s argument for the existence of properties and Hilary Putnam’s version of the so-called ‘indispensability argument’
for mathematical objects. In particular, I will show in what sense these two arguments are of the same genus. Pointing out their important similarities will assist me in my ongoing goals of

i. emphasizing the essentials (and inessentials) of Quinean metaontology, and

ii. focusing the debate over the existence of abstract objects which is centered around it.

In subsequent chapters, I will consider in detail one of the most important and interesting concretist objections to the OIAA; looking at this objection will further help us to isolate the “sweet spots” of the Quine-inspired abstractism/concretism debate.

But now, let us turn our attention to the ontological specification step.

4.1 The Ontological Specification Step

Imagine I discover that I’m apparently committed to the existence of numbers. For example, by believing that there are prime numbers greater than ten or that there are three numbers between one and five (or many other of the host of mathematical beliefs I hold), I am committed to the further belief that there are numbers.¹ In other words, I am committed to the belief which can be expressed by

¹For now, assume that these beliefs so commit me. Some philosophers think that these beliefs would not. Benacerraf, if I understand him, is one of those philosophers who think that they would not. He says, for example, “there are no such things as numbers, which is not to say that there are not at least two prime numbers between 15 and 20.” Although we will deal with a similar claim later, I merely point out that, as obvious as such commitments seem to some of us, they do not seem so to others.
‘There is at least one number’ or ‘∃x(x is a number)’. Also imagine that for some reason—a reason I can’t quite put my finger on—I find this strange; I had never given this issue any thought. But suppose that I am open-minded and am willing to consider the possibility that there are numbers.

So then, numbers seem to exist. Fine. But if so, what are they like? It would be nice to know more about the properties of numbers; that is, I’d like a theory of numbers. But don’t I already have such a theory, even if only an incipient one? That is, I already believe things about numbers: for example, they can be multiplied by one another, some of them are prime, there are at least three of them between one and five, they can be used to express the cardinality of objects, and so on. We already believe lots of things about numbers. But those are not the sorts of properties that we are trying to determine in the ontological specification step. It’s difficult to say just how these are not the right sorts of properties but we might give a couple of examples of the sorts we are trying to specify: Where are numbers? What are they made of? What do they do, if anything? These are in some sense the more “general” or “fundamental” or “philosophical” things we wish to know about numbers.

To be sure, the former, less “philosophical” characterizations of numbers will help us specify the sorts of characteristics with which

\[ \text{Recall my real-life nonplussed response in Chapter 1.} \]

\[ \text{And furthermore, as van Inwagen points out, they have the logical properties of self-identity and, for any property, not having both that property and its complement. See van Inwagen 2004, p. 111.} \]
we are, as ontologists, interested. In any event, when, prior to the specification step, I believed that there were numbers, I really only believed something like ‘There must exist objects that make certain of my number beliefs true.’ But as a philosopher, I want more.

So then, how does one go about developing a more comprehensive theory of numbers? There is no set way but, in general, we first consider what we already believe about the objects—some of which we considered in the ontological commitment step and had committed us to these objects in the first place. From these beliefs we try to determine what further properties these sorts of objects could have. In this sense the specification step is more accurately a further specification step.\(^4\) Let’s look at an example of how we might do this.

Considerations about what kind of objects numbers are can go any number of ways. The reader should not make too much of my example; its only purpose is to show something of what might be included in the process of specification as well as to provide some suggestive evidence that there is no determinate method by which to proceed. (Unless, of course, the characterization of the method is a very general one like, say, “the method of reflective equilibrium.”)

But since I think that something like reflective equilibrium is what philosophers generally do anyway, such a general characterization of the specification step doesn’t distinguish it from any other area of

\(^4\) The method of the specification step then is not entirely different than the commitment step: in both steps we determine what sorts of properties numbers are supposed to have. Van Inwagen helpfully pressed me on this.
philosophy, properly done. And this just reiterates my claim that
the ontological specification step is not unique to Quinean meta-
tonontology.)

Okay then. What are numbers like? First, numbers don’t seem
to be ideas or concepts. Recall one of the things I believed that
committed me to numbers in the first place: there are prime num-
bers greater than ten. Surely there were prime numbers greater than
ten prior to my—or any one else’s—believing that there were. There
would be prime numbers greater than ten should humans have never
existed. And since numbers must exist in order for these proposi-
tions to be true—I presumably already concluded this much in the
ontological commitment step—then numbers seem to exist eternally
and are independent of any human mind.

Other considerations also count against numbers *qua* mind-dependent
objects. Since there seem to be an infinite number of numbers (an
eternal being could continue counting forever) no mind—no finite
mind at any rate—could hold them all. And let us take a particu-
lar number, the number two, for example. If it were a mental object
then there would be a number two in my mind, a number two in
your mind, a number two in Alice’s mind, and so on. There would
be your two, my two, and Alice’s two.

Yet the foregoing considerations against numbers as mental ob-

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jects might only apply if we considered the mind in question to be a *human* mind. Perhaps numbers are objects in God’s mind. If so, then we could account for an infinite number of them, since God’s mind, presumably has an infinite capacity. Furthermore, God’s mind is eternal (because He is) and so we could also account for the apparent eternality of numbers. It is possible that God always thinks about everything and so always thinks about all of the numbers. Given these considerations, limited to be sure, perhaps it is plausible that numbers exist in God’s mind. And if this is so, we might be able to characterize numbers further. For example, numbers would be concrete rather than abstract objects since mental entities are among those that are paradigmatically concrete. Of course, we may not understand the abstract/concrete distinction all that well (see Chapter 1) but it is neither meaningless nor incoherent.

(Whether these considerations provide enough evidence to believe that numbers are concrete mental entities in the mind of God is not the issue here. The point of the foregoing, as I said, is to merely suggest what might be involved in the ontological specification step—of how we might begin to develop a theory of the things to which we found ourselves to be committed in the ontological com-
mitment step.)

Now, if I am content with my little theory of numbers at this point, then I am finished with the ontological specification step for numbers and I now have a partial answer to the ‘What is there?’ question; namely, numbers \textit{qua} concrete entities in God’s mind. But on the other hand, I may not have been so pleased with these results. Perhaps I am an atheist, or a theist who denies that God is the sort of being who has thoughts. What then?

Well, I might make a second go of the ontological specification step, taking a different line of reasoning from the one I took the first time. Maybe I initially made a mistake. And perhaps along this different line of reasoning I could find a more suitable characterization of numbers, one that doesn’t affront my theological or ontological sensibilities. Let’s skip over the line of reasoning—whatever it might be—and imagine that it leads me to characterize numbers as mind-independent \textit{abstract} objects. And let’s further imagine that I would rather not embrace this conclusion either. Assume also that I’m convinced that I, for one, cannot come up with another line of reasoning that leads to different results. Given this scenario, I might go all the way back and revisit the ontological commitment step to make sure that I really \textit{am} committed to the existence of numbers.

Whatever the case may be, answering the ontological question using the Quinean strategy may be an iterative procedure. It is surely not a simple, recipe-like strategy, as some philosophers complain it is.\footnote{Van Inwagen says it’s more of a sneer than a complaint.}
With my presentation of Quinean meta-ontology complete, we can now return to the issue with which we began: the question of whether we should believe in abstract objects. In particular we can now turn to an argument which concludes that we should believe in them, an argument that utilizes Quinean meta-ontology to boot. To be sure, it is not essential to Quinean meta-ontology that one believe in abstract objects. One could in principle be a Quinean meta-ontologist and consistently—consistent with Quinean meta-ontology—not believe in abstract objects. However, Quineans typically do, even if they do not all believe in the same kinds of abstract objects.

Here’s how I’ll proceed. I’ll first consider two specific arguments for the existence of (different kinds) of abstract objects. The first, as I said, is van Inwagen’s argument for the existence of properties. The second is Putnam’s argument for the existence of mathematical objects. Both of these, I will argue, can be seen as a version of what I call ‘the ontological indispensability argument for abstractism’.

4.2 Van Inwagen’s Argument

In “A Theory of Properties”\(^{10}\) van Inwagen asks us to consider the proposition expressed by

(A) Spiders share some of the anatomical features of insects.

This sentence, he says, seems to commit us to the existence of anatomical features for if “we examine the meaning” of (A) “we

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\(^{10}\)van Inwagen 2004.
find that what it says is,"

(B) There are anatomical features that insects have and spiders also have.

And if there are anatomical features that insects and spiders have, then

(C) There are anatomical features.

It seems then, if we believe that (A) is true, then we should also believe that (B) and (C) are true, upon pain of inconsistency. Those of us who believe (A), therefore, are committed to the existence of features. Furthermore, says van Inwagen, “it is very hard to see what an ‘anatomical feature’ (such as “having an exoskeleton”) could be if it were not a property.”\textsuperscript{11} So (C) seems to commit us to the existence of properties insofar as we believe (A).

Furthermore, van Inwagen believes that if properties exist then they’re not concrete. That is, every object falls into one and only one of two groups. Each group is composed of things that—if they exist—would be almost wholly unlike those things in the other group. Properties fall under the group that he stipulates as ‘abstract’ (the other group being stipulated as ‘concrete’).\textsuperscript{12} And since properties are abstract, we should believe in abstract objects; we should be abstractists.

\textsuperscript{11}van Inwagen 2004, p. 114.

\textsuperscript{12}This method of characterizing the abstract/concrete distinction is a version of what Lewis calls the Way of Example (see Chapter 1).
Can this single sentence (A) really require us to be abstractists? As we have seen, that will depend. But van Inwagen lays down the four options that a concretist might take in response to his argument.

(a) She might become an abstractist.

(b) She might abandon her ordinary nonphilosophical belief that spiders share some of the same anatomical features of insects.

(c) She might try to show that her ordinary nonphilosophical belief that spiders share some of the same anatomical features of insects doesn’t really imply that there are properties.

(d) She might admit that her belief in both concretism and (A) seem to be inconsistent and yet cling to her concretism, believing that there must be something wrong with the argument for properties even if she cannot determine what that something is.

I will ignore options (a) and (d) altogether in this dissertation. I hope it’s obvious why. Furthermore, van Inwagen provides good reasons for not responding as (b) suggests. He says that, for one thing, to deny (A)—or the belief that is expressed by (A) outside the philosophy room—would be to deny certain well-attested biological facts concerning spiders and insects. For another, (A) is not the only sentence that would serve the abstractist’s purpose in the argument. There are countless others, and giving up one’s belief in them would be bizarre, to put it mildly (as it might be in our earlier “number” sentences; “You mean there aren’t three numbers between 1 and 5?”).

In any event, the most likely option to take for anyone not wanting to believe in abstractism, says van Inwagen, is (c). And though there may be a number of ways one might attempt to show that
(A) doesn’t commit her to abstractism, van Inwagen focuses on the method of *replacement*, which we considered in Chapter 3. Furthermore, he believes that any acceptable replacement for (A) will also imply the existence of abstract objects, even if not properties. For example, we might, rather than quantifying over properties like “having an exoskeleton,” quantify over *concepts* like “thing with an exoskeleton” (using concepts in a Fregean sense, say). Or we might be able to avoid quantifying over properties and concepts, but only by quantifying over sets. The concretist will be unhappy with either alternative.

Whatever the case may be, says van Inwagen, it is very unlikely that the philosopher who wishes to believe in only concrete objects will be able to replace (A) with any acceptable sentence that does not imply the existence of abstracta of some sort. And recall that (A) isn’t the only sentence that the concretist will need to deal with. For each sentence for which she can find an acceptable replacement, there will be many others to take its place. Debating the abstractist in this way is very much like fighting the Hydra. And all it takes to commit the concretist to abstractism (strictly speaking) is one sentence for which the concretist cannot find a suitable replacement.

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13His criterion for an acceptable replacement, as we also saw in Chapter 3, is that the *replacement should be able to be used in place of the original*. Again, it isn’t altogether clear what he means by this but we saw above that, in the case we are considering, he thinks that (1) and (2) are synonymous. However, a replacement need not be synonymous to be used in place of the original and I will assume that van Inwagen does not require synonymy for an adequate replacement.

14See pp. 119ff. of van Inwagen 2004 for a representative dialogue between an abstractist and a concretist over the implications of (A).
Concretists are still waiting for their Hercules.

Notice that van Inwagen believes there are only *four* ways to respond to the argument for abstractism. He left out, however, a fifth—and important—way. A nominalist might avail herself of the following:

(e) She might concede that (A) implies the existence of properties but attempt to show that properties are *concrete* objects.

This type of response, it might be plausibly argued, is at least historically important; one might see it as kind of “Augustinian” response.\(^{15}\) We considered just such a response above when we took the ontological specification step for numbers. There we imagined someone reasoning that numbers could be ideas in God’s mind. And as I have said, mental entities are typically believed to be concrete particulars.

I think option (e) is more than historically important; I think that (e) is the right option to take for some of the sentences that trouble the concretist.\(^{16}\) But more on this in Chapter 6.

One last thing before looking at Putnam’s argument. *Officially* van Inwagen argues merely for a conditional. This conditional is something like

If our ordinary beliefs seem to commit us to properties, numbers, etc. *and if* we don’t reject these beliefs *and if* we shouldn’t

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\(^{15}\)“But it seems contrary to faith that the forms of things should subsist of themselves...Therefore, in the place of the Ideas defended by Plato, Augustine said that the exemplars of all creatures existed in the divine mind.” Thomas Aquinas, *Summa Theologica*, Part I, Question 84, Article 5.

\(^{16}\)I’m not sure if this is the case for properties, however.
say things we don’t believe\textsuperscript{17} and if we cannot find replacement sentences to express them, then we should believe in properties, numbers, etc.

As we’ll see, however, he \textit{unofficially} suggests that all of the conjuncts of the antecedents are true (we’ve already seen that he thinks that we cannot find adequate replacements). The distinction between his official and unofficial argument is irrelevant for my purposes but it is still a real distinction.\textsuperscript{18}

Notice that the “no-replacement-sentences” conjunct is where the notion of the indispensability of quantification arises. Of course, this brings to mind the so-called Quine-Putnam indispensability argument for mathematical objects.\textsuperscript{19} I think that the Quine-Putnam argument is importantly similar to the sort of argument van Inwagen offers. Let’s look briefly at Putnam’s indispensability argument before formulating a general argument under which these two more specific arguments fall.

4.3 Putnam’s Argument

In \textit{Philosophy of Logic} Putnam characterizes his argument for the existence of mathematical objects as follows:

\textit{quantification over mathematical entities is indispensable for science, both formal and physical; therefore we should accept such quantification; but this commits us}

\textsuperscript{17} Or say things that imply things we don’t believe.

\textsuperscript{18} And van Inwagen would very much like for me to make this clear.

\textsuperscript{19} See Melia 2000 for a distinction between Quine’s version and Putnam’s.
to accepting the existence of the mathematical entities in question. (Putnam 1998, p. 425)

The science he speaks of includes mathematics as well as physics. In either case, he believes that quantification over mathematical objects is indispensable in the sense that a “nominalistic language”—a language that refers to concrete objects only—is in principle inadequate to express our current mathematical and physical theories. Whether or not such a language is inadequate in principle, it has certainly been so in practice. Thus far there are no adequate replacements for all the sentences that currently express our scientific theories. So we’ll need to continue to quantify over numbers or sets if we want to retain such theories (this desire to retain them goes without saying, it seems).

With respect to the last part of the argument—the part in which ‘commitment’ appears, he goes on to say,

This type of argument stems, of course, from Quine, who has for years stressed both the indispensability of quantification over mathematical entities and the intellectual dishonesty of denying the existence of what one daily presupposes [emphasis added]. (Putnam 1998, p. 425)

Even if we take “dishonesty” as more of a rhetorical device than to mean literal deceit and lying, it at least refers to the notion of inconsistency. We should accept—that is, believe in—the existence

20 Of course this is at least mildly controversial. Hartry Field believes that he has nominalized Newton’s theory of gravitation and that something similar can be done for all applications of mathematics. I say ‘mildly’ controversial because not many philosophers think Field’s program can succeed. I will talk slightly more about Field in Chapter 6 but unfortunately this dissertation is not the place for a thorough presentation of his view, much less a good discussion of it.
of mathematical entities because we should be consistent in our be-
lievings (and how we express our beliefs).

4.4 The OIAA

Let me now give a general argument into which both of the foregoing arguments—Putnam’s and van Inwagen’s—can be fit. Doing this, I think, will clarify the debate surrounding Quinean meta-ontology. In particular, it will facilitate the discussion of various objections to Quinean meta-ontology in Chapter 5; I want to make it very clear where these objections are aimed. Not many (if any) objectors really make their target as clear as one might like. To be sure, Quineans have not always made it easy for them in this respect. I offer them both a helping hand. Furthermore, as I said, van Inwagen distances himself from the Quine-Putnam indispensability argument and if I can show that he is much closer than he claims, I might be able to simplify and clarify matters further.

The ontological indispensability argument for abstractism or OIAA is best understood as being composed of two parts. The first part makes use of the ontological commitment step and concludes that we should believe that there are objects like propositions, numbers, and the like. The second part of the argument makes use of the ontological specification step and concludes that propositions, numbers, and the like are abstract.

Here is the first part that argues for objects that are typically understood as abstract.
1. Many of our ordinary beliefs are expressed in ways that seem to imply the existence of objects like propositions, numbers, sets, and properties. In other words, we seem to be committed to such objects.

2. We cannot reasonably give up all of our beliefs about the world that these sentences help us to express; most of these beliefs are, in this sense, indispensable.

3. We shouldn’t use a sentence to affirm something if we knowingly reject any of its logical consequences, at least not without having an idea of how we can adequately replace it with another sentence, even if only in principle.

4. Of those (very many) beliefs that we cannot give up, neither can we plausibly argue that they can be expressed in ways that do not imply the objects in question. In other words, we cannot (even only in principle) find adequate replacement sentences that do not imply putatively abstract objects. In other words, quantification over numbers, properties, sets, etc. is indispensable.  

5. If (1), (2), (3), and (4) are true then we should believe in objects like propositions, numbers, sets, and properties.

6. Therefore, we should believe in objects like propositions, numbers, sets, and properties.

The second part of the OIAA, which argues that the objects are abstract, is as follows.

7. If there is no plausible alternative concretist theory for at least some of these putatively abstract objects then the most plausible ontologies will include abstract objects.

8. There is no plausible alternative concretist theory for at least some of these putatively abstract objects.

9. Therefore, the most plausible ontologies will include abstract objects.

21 So then, both the beliefs and the way in which they are expressed are indispensable.
This argument, I think, bears more than a passing resemblance to the ones we’ve just looked at. Let’s consider it more closely, seeing how Putnam’s and van Inwagen’s arguments correspond to it. Before beginning I want to remind the reader that van Inwagen’s official argument is only for (5). However, since there is ample evidence that he personally believes the conjuncts of the antecedent, as well as the remaining propositions, I will speak as if he offers them as an official part of his argument.

Both van Inwagen and Putnam clearly offer (1) as part of their arguments. Putnam claims that the theories of mathematics and physics—which most of us strongly believe—imply the existence of sets at the very least. And much of the pressure that van Inwagen applies to the concretist derives from his claim that there are not merely a few strongly held beliefs that imply abstract objects, but rather very many. To be sure, the scope of the beliefs with which Putnam is interested is limited to the sciences, formal and physical—and van Inwagen makes a point to bring this difference out. However, it’s not a very important difference for us here.\(^{22}\)

The notion of indispensability arises in premise (2). Here we will want to be careful though. Strictly speaking, ‘indispensability’ as Putnam uses it refers not to the indispensability of the beliefs themselves but to the indispensability of the way we express them. What is indispensable in his sense is quantification over abstract objects in the expression of our scientific beliefs. But of course the indispens-

\(^{22}\)And I don’t think that a clear and principled demarcation between “scientific” and “non-scientific” beliefs can be supported anyway.
ability of quantification is only going to do work in Putnam’s argument if the beliefs that are expressed by quantifying over abstract objects are themselves indispensable. If the beliefs which can only be expressed by quantifying over abstract objects are themselves dispensable, then the concretist could simply give them up. And this is something that Putnam (and van Inwagen) think we cannot plausibly do. The implausibility of denying that spiders share some of the same anatomical features of insects—at least without some qualifier like, ‘strictly speaking’—illustrated this point. So Putnam and van Inwagen need something like premise (2) if their arguments are to have any real force.

That said, neither Putnam nor van Inwagen claim that one cannot give up the beliefs that imply abstract objects. “Indispensability” doesn’t imply that it’s absolutely impossible to give up these beliefs, but only conditionally so. That is, one cannot give them up if one wants to rationally or consistently retain certain other beliefs. Recall that van Inwagen thinks that giving up one’s belief that spiders and insects share anatomical features is “unattractive” because it is a “simple fact of biology.” I take it that the unattractiveness of giving up such a belief stems from the fact that it is a very strong belief for most of us and to give it up would mean that one must give up many other things, to the point of being unreasonable. So too in Putnam’s case. He says that insofar as one doesn’t want to give up the sciences altogether—I’ll assume that we all agree that this would be unreasonable—we cannot give up those scientific beliefs
that imply mathematical objects.

Let’s turn to premise (3). This, I take it, is underwritten by the conviction that we should be consistent. “Look, don’t say something as if you mean it if you don’t mean it.” This might be called the “no double-talk” premise.\(^{23}\) To violate (3) would be to lie or to at least be inconsistent. So even if Putnam and van Inwagen did not explicitly voice something along the lines of (3) we could reasonably assume that they would give their assent to it. But we already saw that Putnam, for one, seems to believe that there is something inconsistent (and therefore bad) about not believing in objects that are implied by the things we say. Van Inwagen, for his part, explicitly says,

> if one doesn’t believe that things of a certain sort exist, one shouldn’t say anything that demonstrably implies that things of that sort do exist. (Or, at any rate, one may say such things only if one is in a position to contend, and plausibly, that saying these things is a mere manner of speaking—that, however convenient it may be, it could, in principle, be dispensed with.) (van Inwagen 2004, p. 122)

The parenthetical sentence, he has explained, refers to replacement sentences.\(^{24}\) One should be able to at least make a case that we might come up with a replacement in principle, even if not in actuality (perhaps if certain contingent limitations on our part were removed). In any event, I presume he says that we shouldn’t affirm things we don’t believe because he believes that (i) we usually believe

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\(^{23}\)See Quine 1960, p. 242.

\(^{24}\)Private communication.
what we affirm and (ii) if we affirm something yet refuse to believe in its implications then we aren’t being consistent and (iii) being inconsistent is a bad thing (for why else should one avoid it?). Furthermore, when he lists the possible ways a concretist might respond to his argument he adds the qualifier, “Assuming that Norma [who is a concretist] is unwilling to have inconsistent beliefs.” The alternative is not worth considering, he thinks. And rightly so. We should be consistent. Our assertions should correspond to our beliefs.

As for (4), Putnam believes that there is no possible formulation of our current scientific theories that does not quantify over mathematical objects, which implies, of course, that there are no replacement sentences that do not so quantify. As we said, quantification over numbers and the like is what is indispensable according to (4).25 Similarly, van Inwagen believes that it is highly unlikely that we’ll find an adequate replacement of the “spiders” sentence (and of the countless other abstracta-implying sentences), bordering on impossible.26

Premise (5) is just the thing that van Inwagen argues for “officially,” as I said. Putnam, since he believes lemma (6)—which is another normative claim whose normativity is derived from (3) and just follows from the first four premises—will need (5) as well. And lemma (6), according to Putnam and van Inwagen, is the end re-

25See, however,—I mentioned this above—Field’s attempt to “nominalize” Newtonian gravitational theory in Field 1980, Chapter 8.

26Although he does not make so strong a claim as that it is impossible in principle.
sult of taking the ontological commitment step while maintaining consistency.

If we accept (6), Premise (7) should be uncontroversial; it just follows from the fact that every object is either abstract or concrete. Now, notice that the ontological specification step is employed to support premise (8). It is interesting that Putnam and van Inwagen merely assume (8) rather than explicitly state it. Much less do they take us through the specification step. This reveals how obvious the results of taking such a step seems to them. This apparent obviousness can also be seen, for example, when van Inwagen says that

> Those who affirm the existence of abstract objects, and those who deny the existence of abstract objects will say that if there were propositions and numbers they would be abstract objects. (van Inwagen forthcoming)

The result of taking the specification step—at least with respect to propositions and numbers—is a foregone conclusion it seems. Recall, too, that when he lists all the responses to his argument which are available to the concretist, he doesn’t even include the possibility of finding a concretist account of properties. That’s simply not on his ontological radar. Putnam’s own silence regarding this possibility suggests something similar; and his belief in (8) is surely one of the motivations for his indispensability argument in the first place. (And as far as (9) is concerned, any argument for abstractism will include it as one of its conclusions.)

Let us make sure that we are very clear about the relationship
between the OIAA and Quinean meta-ontology. First, the OIAA is not Quinean meta-ontology. Rather, the OIAA employs Quinean meta-ontology. Recall that the essentials of Quinean meta-ontology are

i. theses about existence and quantification,

ii. the normative principle of ontological commitment, and

iii. certain views on the proper use of replacement sentences.

Premise (1) makes use of (i), the existence theses and Quine’s views about quantification. Premise (3) relies on (ii) and (iii) of Quinean meta-ontology. These are the only premises of the OIAA that are uniquely Quinean. None of the others make use of anything essential to Quinean meta-ontology. This is important to see when one is trying to unravel the current debates surrounding ontology done Quine-style.

Before closing, let us relate the OIAA argument to the five options, (a)–(e) open to the concretist in the face of such an argument.

The first option open to the concretist—option (a)—was to simply convert to abstractism; this would be to accept (9). Option (b) was to deny belief in, for example, whatever relevant fact that biologists have told us about spiders and insects. This would be similar to saying that we could reasonably give up the deliverances of biology and would be an instance of denying (2). It would be to say that the relevant belief about spiders and insects is dispens-

27 This premise can be put another way: We may use a sentence to affirm something we don’t believe iff we can find an adequate replacement sentence.
able. Now, one way to take option (c) would be to deny (4), to deny that we cannot express our belief about spiders and insects in a way that doesn’t quantify over properties or other supposedly abstract objects. Another way to take (c) would be to deny that we must believe in all the implications of our assertions, by denying (3). We will examine this option in Chapters 4 and 5. Taking option (d) would be equivalent to denying (9) while claiming that there must be something wrong—the concretist knows not what—with at least one of the previous propositions. Finally, if the concretist were to opt for (e) she would in effect be claiming that there is a plausible concretist account of the objects to which she is committed; in this case she would deny premise (8).

4.5 Conclusion

I have put these two arguments—Putnam’s argument for mathematical objects and van Inwagen’s argument for properties—in the category of indispensability arguments for abstractism to provide some suggestive evidence that many, if not all, arguments for abstractism which utilize Quine’s meta-ontological strategy are of this form (or can be put into this form without any essential changes to the arguments). If I am correct, then this will help simplify and focus the debate surrounding Quinean meta-ontology.

\footnote{Which includes much of the debate over numbers and sets in the philosophy of mathematics. Jody Azzouni argues that “All sides in the recent debates over the Quine-Putnam Indispensability thesis presuppose Quine’s criterion for determining what a discourse is ontologically committed to.” (Azzouni 1998, p. 1)}
To support this latter claim, I will, in the next chapter, consider certain objections to Quinean meta-ontology against the backdrop of the OIAA. I do this because a number of the objections to Quinean meta-ontology arise in the context of objections to the OIAA. The main objector, the one who I think has the best (even if ultimately unsuccessful) objection to Quinean meta-ontology—and to the OIAA—is Joseph Melia. I will actually end the next chapter with his objection because in it we can see the makings of what might be a successful objection to the OIAA, and in the last chapter I propose a program of future research to develop this objection. But before looking at Melia’s views, I will address three philosophers who focus on Quinean meta-ontology, and not specifically on the OIAA (although two of them critique Quinean meta-ontology in order to avoid the OIAA’s conclusion): Carnap, Thomas Hofweber, and Jody Azzouni. And although we have encountered certain straightforward objections to Quinean meta-ontology already, these three, I think are a bit more subtle and interesting.
In the last chapter we saw that arguments for abstractism that take Quinean meta-ontology as their starting point could be put into the form of a general indispensability argument. I called this argument the ‘ontological indispensability argument for abstractism’ or the ‘OIAA’. Putting them in this form can help clarify those ontological debates which trace their ancestry back to Quine. Because I will frequently refer to the OIAA in this chapter, I’ll present it again here for ease of reference.

1. Many of our ordinary beliefs are expressed in ways that seem to imply the existence of objects like propositions, numbers, sets, and properties. In other words, we seem to be committed to such objects.

2. We cannot reasonably give up all of our beliefs about the world that these sentences help us to express; most of these beliefs are, in this sense, indispensable.

3. We shouldn’t use a sentence to affirm something if we knowingly reject any of its logical consequences, at least not without having an idea of how we can adequately replace it with another sentence, even if only in principle.

4. Of those (very many) beliefs that we cannot give up, neither can we plausibly argue that they can be expressed in ways
that do not imply the objects in question. In other words, we cannot (even only in principle) find adequate replacement sentences that do not imply putatively abstract objects. In other words, quantification over numbers, properties, sets, etc. is indispensable.

5. If (1), (2), (3), and (4) are true then we should believe in objects like propositions, numbers, sets, and properties.

6. Therefore, we should believe in objects like propositions, numbers, sets, and properties.

7. If there is no plausible alternative concretist theory for at least some of these putatively abstract objects then the most plausible ontologies will include abstract objects.

8. There is no plausible alternative concretist theory for at least some of these putatively abstract objects.

9. Therefore, the most plausible ontologies will include abstract objects.

The purpose of this chapter is to look at four particularly interesting objections to Quinean meta-ontology and to the OIAA. The first three objections are from Carnap, Thomas Hofweber, and Jody Azzouni, respectively. Carnap’s objection is historically important and felicitously sets up Hofweber’s. Azzouni’s objection also has shades of Carnap’s in it. Furthermore, running through Carnap’s and Hofweber’s objections first will give the proper backdrop and motivation for Azzouni’s.

But the real focus of this chapter is Joseph Melia’s objections to the OIAA. Some of his objections focus on premises of the OIAA that do not originate with Quinean meta-ontology; others do. But in the end, his fundamental objection to the OIAA is aimed at Quinean meta-ontology. Whereas most objections to the OIAA deny premises
few philosophers have denied (3). Melia claims, however, that we can *rationally* continue to use abstracta-implying assertions even if we don’t know how to find adequate replacements for them. We need only, he says, believe in the implications that such sentences have for the *concrete* world.

5.1 Carnap and the Internal/External Distinction

Carnap, of course, was famously suspicious of Quine’s meta-ontology. According to his own meta-ontology, the ontological question couldn’t be answered. His critique begins with the notion of a “linguistic framework.”

> Are there properties, classes, numbers, propositions? . . . 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 shall call this procedure the construction of a linguistic *framework* for the new entities in question. (Carnap 1956, p. 206)

A linguistic framework gives, among other things, the rules for speaking about certain kinds of objects within the framework. Take the framework of what Carnap calls the “thing world,” the system of language that gives us rules for speaking about “ordinary dry goods” like dogs, rocks, and computers. To accept the thing framework means nothing more than to accept a certain form of language, in other words, to accept rules for forming statements and for testing, accepting, or rejecting them. The acceptance of the thing language leads, on the basis of observations made, also to the acceptance, belief, and assertion of certain statements. (Carnap 1956, p. 208)
The thing framework affords us the discipline and guidance for constructing sentences about the entities allowed within the framework. It is not as if, within the framework, particular kinds of things—as opposed to things generally—are merely assumed to exist, though. Specific kinds of things like tables, dandelions, and griffins may be accepted or rejected on either logical or empirical grounds.¹ And the framework gives us the rules for what counts as evidence for such entities. It dictates what sorts of entities are accepted, and what counts as acceptance.²

And using linguistic frameworks is what we do in our ordinary business of life. There are different linguistic frameworks, says Carnap—the thing framework, the number framework, the property framework. And one can work within one framework or another. Within the thing framework, for example, we can ask whether there are rocks, whether there are unicorns, whether there are mountains. But we cannot nontrivially ask whether there are things. The answer the framework would give is obvious; the thing framework simply assumes that there are. As Stephen Yablo says, “It is no good consulting the framework for the answer; we know what it says.”³ To ask whether ‘things’ exist from within the thing framework is not an empirical question. It is, one might say, analytic.

¹Carnap 1956, p. 206.
²Carnap 1956, p. 207.
Furthermore, we can’t ask whether there are things from a vantage point outside the thing framework. Yet this is exactly the sort of question ontologists ask when they ask whether there are numbers, properties, or propositions. These latter objects have their own frameworks and so ontologists are asking about their existence from outside these objects’ respective frameworks. Asking such questions is impossible (or, on the other hand, trivial if asked from within the respective framework).

Ontologists who ask questions of existence...consider that discipline [i.e., the framework] to be irrelevant to the question they intend. Their question is external to the framework. (Alspector-Kelly 2001, p. 95)

And as I said, these “external” questions are impossible to ask—impossible because they’re meaningless. Why? Why are external questions meaningless? Because frameworks give us the rules that govern the talk of existence of a certain kind of entity to begin with. But there is no general framework, according to Carnap, outside the particular framework; and so there are no governing rules that govern talk about, and acceptance of, the most general kind entities belonging to that framework.

That isn’t to say that we cannot ask any external questions. Just not external questions regarding what there is. Whether to adopt or construct a framework is an external question, one that cannot be asked from within the framework and so must be asked from outside it. But this sort of question is a pragmatic one, not one about “realism” or the existence of entities. External questions of this sort
are about language, not about what there is. But external questions of existence, questions that are posed from outside the framework, are “pseudo-questions;” they’re meaningless.  

So then, legitimate external questions are about what frameworks to adopt and are matters of pragmatism.

We can consider the advantages and disadvantages of quantifying into the position occupied by a certain class of expressions and propose that we do so (or not). But these issues concern how language is best engineered; they are not, Carnap insisted, questions of what to believe there is. (Aspector-Kelly 2001, p. 95)

Internal questions of existence, on the other hand, (at least those of a certain sort) are not matters of pragmatism but are epistemic. They are about what to believe there is. But these are not questions about whether “universal” or “categorical” terms like ‘thing’, ‘number’, or ‘property’ refer to anything. Rather, they are questions like

4This is as good a place as any to point out that Carnap does not object to the Quinean’s claim that quantifying over objects commits us to their existence. But this commitment can only occur within the framework.

5Those who raise the question of the reality of the thing world itself have perhaps in mind not a theoretical question as their formulation seems to suggest, but rather a practical question, a matter of practical decision concerning the structure of language. We have to make the choice whether or not to accept and use the forms of expression in the framework in question.” (Carnap 1956, p. 207.)

6This is referring to an earlier doctrine of Carnap’s, the doctrine of universal words. Alspector-Kelly gives a summary of the doctrine. “Universal words are very general predicates: ‘number’, ‘property’, ‘proposition’, ‘event’, ‘material object’, ‘sensedatum’, and so on. According to the doctrine, there is a fundamental difference between the role that these general predicates play and that played by more specific predicates, such as ‘prime’, ‘green’, and ‘chair’. Assertions that employ them in predicate position, like ‘Three is a number’, appear to describe a property of an object; but they are really disguised metalinguistic assertions concerning the underlying syntax of the language. ‘Three is a number’, on this view, is perspicuously rendered as ‘Three’ is a number-word’, which is
‘Did King Arthur actually live?’ or ‘Are unicorns and centaurs real or merely imaginary?’ or ‘Is there a prime number greater than a million?’

And so we can see now why Carnap thinks that Quinean meta-ontology is misguided. The ontological question is meaningless. It can’t be coherently asked. It is an extra-framework question. Ontology is doomed from the start. Carnapian meta-ontology, such as it is, says that ontology isn’t possible; it says we can’t meaningfully ask the ontological question, much less answer it. We see, too, that Carnapian meta-ontology is not directed at any uniquely Quinean aspect of Quinean meta-ontology. Rather, it is leveled at any meta-ontology that believes the ontological question can be asked.

Is Carnap right? For a moment, let us brush aside such questions as whether there really are isolated frameworks or whether there aren’t hierarchies of frameworks, frameworks within frameworks. Let us not ask why there could not be an overarching framework—or at least a higher-level framework—within which the ontological question can be asked (the ontology framework, perhaps). Let us, rather, ask what Quine’s response to Carnap was.

Quine’s fundamental counter-objection is that Carnap ultimately appeals to the analytic/synthetic distinction when appealing to his pragmatic/epistemic distinction. Alspector-Kelly:

Carnap’s distinction between pragmatic framework-choices and epistemic existential issues is, Quine not about a number but instead about the word ‘three’, and serves to identify its syntactical category.” (Alspector-Kelly 2001, p. 97).
thought, of a piece with the general distinction between matters of language and matters of fact. But that distinction itself presupposes the analytic/synthetic distinction which Quine repudiates. Choosing a linguistic framework (an ontology, as Quine would say) is no more innocent of the question what to believe there is than is choosing whether to affirm the existence of brick houses on Elm Street.⁷ (Alspector-Kelly 2001, p. 96)

The success of Quine’s counter-objection depends upon the success of his denial of the analytic-synthetic distinction. An appraisal of this distinction is beyond what we can hope to accomplish here. I will say, however, that I have sympathies with Quine’s position on this particular dogma and so I tend to think that Quine is right about Carnap’s attempt to dispense with ontology. Furthermore, I do not think that there are clear cut boundaries to linguistic frameworks, assuming that there are such things. Also, and this is a related point to which I alluded a moment ago, I believe that there could be hierarchies of frameworks, perhaps even an overarching framework encompassing all others. In any event, I don’t think that Carnap showed us that the ontological question is meaningless. It looks like Carnapian meta-ontology is wrong. Like most philosophers, I think Quine got the better of Carnap, and I have nothing new to add. I address Carnap’s meta-ontology simply to show an important way

⁷See Quine 1963b, p. 46. Quine also says, “Carnap, Lewis, and others take a pragmatic stand on the question of choosing between language forms, scientific frameworks; but their pragmatism leaves off at the imagined boundary between the analytic and the synthetic. In repudiating such a boundary I espouse a more thorough pragmatism. Each man is given a scientific heritage plus a continuing barrage of sensory stimulation; and the considerations which guide him in warping his scientific heritage to fit his continuing sensory promptings are, where rational, pragmatic.” (Quine 1963b, p. 46)
in which Quinean meta-ontology has been disputed. Despite Carnap’s defeat, however, I will argue later that he has some important insights that might bear pursuing for those of us who want to deny the OIAA.

5.2 Hofweber and the Internal/External Distinction

Carnap’s pessimistic meta-ontology was in opposition to all the optimistic meta-ontologies that provide guidance on how to answer the ontological question. There is another objection to Quinean meta-ontology that seems related to Carnap’s, but one that doesn’t take the pessimistic turn: Thomas Hofweber’s. Hofweber’s objection to Quinean meta-ontology is directed almost entirely at the Quinean view of quantification. Recall that although canonical notation can be helpful in answering the ontological question, according to the Quinean, this notation is not essential. In other words, when the Quinean speaks of quantification we should remember that he has in mind, primarily, ordinary-language quantification. So too, Hofweber focuses on the nature of ordinary-language quantification, avoiding the pitfalls of focusing on the quantifier-variable idiom. And so his objection to Quinean quantification is more to the point.

Hofweber asks us to consider what he calls the following “trivial” (and now familiar type of) inference:

Jupiter has four moons.

The number of moons of Jupiter is four.

There is a number which is the number of moons of Jupiter, namely four.
There are numbers, among them the number four.⁸

Arguments of this type are trivial, he says, because there are perhaps no other kinds of arguments which are simpler or more straightforward anywhere in philosophy. Then why is ontology so difficult? It is because language is not always so cooperative. Standing in a long tradition of analytic philosophers, he points out that what a sentence *seems* to mean is not always what it does mean. In particular, quantificational devices such as ‘there are’ and ‘there is’ are ambiguous. Quantifiers can have different meanings and therefore different functions in different contexts.

Hofweber does not deny that quantifiers often function as the Quinean says they do. For example, ‘Something ate my cheese’ is only true if there is some “object or entity that ate the speaker’s cheese.” So then, “In one sense there is thus a close connection between quantification and ontology.” “But,” he goes on,

what is at issue here is whether or not all uses of quantifiers have this function and this close connection to ontology. I will deny that this is so. But it is important to note in the following that I deny it on empirical grounds, not because I try to explain something away for philosophical reasons. I think the correct understanding of the function of quantifiers in natural language shows us that quantifiers sometimes have a different function, and that we have reason to believe this independently of issues about ontology.

We can see here where Hofweber differs with Quinean meta-ontology:

he disagrees with the view that quantificational devices are univocal

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⁸Hofweber forthcoming. All quotations by and references to Hofweber are from this unpublished work.
and have only one function (see Chapter 3).

The general linguistic feature that Hofweber points to—a feature had by quantifiers—is what he calls ‘semantic underspecification’. He says,

Semantic underspecification is a general phenomenon in natural language, one that occurs all over the place and in a variety of different ways. It is the phenomenon that the contributions that the language makes to the truth conditions of an utterance of a sentence does not completely determine the truth conditions of that utterance. The sentence is semantically underspecified, and it can have different readings.

This of course shouldn’t be controversial. We’re very familiar with the ambiguity of natural language. But it is controversial whether the quantifiers are ambiguous.

Hofweber says that there are basically two different ways in which quantifiers are used. One way depends upon the standard objectual interpretation. The ‘cheese’ sentence is true only if there “exists an object out there in reality” that ate the speaker’s cheese. He calls this reading of the quantifier the external reading or the domain conditions reading. On this “reading the quantifier imposes some condition on the domain of entities that our discourse is about.” In other words, the quantifier is used to say something about a domain external to the language of the speaker.

But there is another role that quantifiers can play, what he calls the inferential role. For example,

One of the uses we have for quantifiers is to communicate information that is in certain respects lacking with
sentences that have quantifiers in them, and apparently have them essentially (given the information we have).

He goes on to give the following scenario:

You are supposed to write a psychological profile of Fred, and you learn the most valuable information that Fred admires Nixon very much. This is most useful to you since it allows you to make a number of conclusions about what kind of things Fred values, and what kind of person he is. However, the next day, when you sit down to write up the profile you just can’t remember who it was that Fred admires. All you can remember is that whoever it is, this person is also admired by many Republicans. This is still very useful information, and you can communicate it to someone else as follows: There is someone Fred admires very much and that person is also admired by many Republicans. Who is that again?

The role that the quantifier plays here is that of a placeholder for the information you forgot. And what we want to communicate has to be independent of whatever information we forgot.

We want to say something that is true whether it was Nixon, Clinton, Sherlock, or anybody else, who was admired. So, with whatever complete information we started out with, once we forgot a certain aspect, whatever it was, we should end up with the same incomplete information. In short, we want the quantifier to have a certain inferential role... If what we started out with is true then the less specific information should be true, too, independently of what we started out with. So, we want the quantifier to have the inferential role that “F(...t...)” implies “F(...something...),” for whatever “t” might be.

Unfortunately, Hofweber is not as clear as we might like. But he seems to be suggesting that on this second reading of the quantifier, the quantifier is not being used to say something about an object
but in order to carry out an inference when no “external” object is in view. He calls this reading the \textit{inferential role} or \textit{internal} reading.

But there is one place where Hofweber is clear about the internal reading. He says that the quantified statement can have this inferential if it is “truth conditionally equivalent to the disjunction over all the instances that are supposed to imply it.”

That is, ‘F(something)’ would have to be truth conditionally equivalent to the disjunction of all the ‘F(t)’. These truth conditions make clear that this reading of the quantifier deserves the reading ‘internal’ since the disjunction that it is equivalent to is based on all the instances within one’s own language. The truth conditions of a quantified statement in its internal reading are closely related to statements within one’s own language, rather than directly to some language-independent, and external, domain of entities.

From this passage we now see what Hofweber has in mind. And we have seen this before, I think. Hofweber’s internal reading is really the substitutionalist’s reading that we saw in Chapter 3. The sentence containing the ‘F(something)’ is true just in case there is a substitutional instance ‘F(t)’ that makes it true.

So then, according to Hofweber, quantifiers are semantically underspecified.\footnote{And so, unlike the typical substitutionalist, he doesn’t think that the internal reading is the \textit{only} reading of quantifiers.} They can be read as having either their objectual use or as having their substitutional use. Although he uses the phrase ‘semantically underspecified’ it’s not clear just what the \textit{meaning} of the quantifier is on the substitutionalist reading; he speaks in terms of truth conditions only. But we saw in Chapter 3 that this might
not be the problem that van Inwagen claims it is. In any event, we can see now why the “Jupiter” inference above is “trivial” while the existence of numbers can still plausibly be denied. At least according to Hofweber. Namely, the quantifier is being used in its inferential role and so we can easily account for the logical relations among the statements. However, since the inferential reading of the quantifier is in play, there are no conditions placed on the domain; there is silence with respect to the existence of any real language-independent object.

In Chapter 3, we saw this type of view—at least a very general form of it. I called it the quantificational ambiguity response. According to this view there is more than one reading (I explicitly said ‘meaning’) of ordinary-language quantifiers. This view bypassed the debate over the meaning of the formal quantifier-variable idiom and moved the debate to the interpretation of ordinary-language sentences, where I thought the debate should be located. So we return to the issue of determining just what our sentences mean (or perhaps merely the truth-conditions of our sentences). That the quantifiers, for example, can mean something different in different sentences is not hard to imagine. The problem is arguing for a particular meaning (other than the objectual meaning). Hofweber, with his “forgotten information” example, has not provided very good account of an alternative meaning. On the other hand, there does seem to be the strong and widespread intuition that the quantifiers often mean something other than the objectual interpretation (this is one
of the main reasons people have trouble accepting the conclusion of
“trivial” arguments like the one above).\footnote{10}

All that to say, Hofweber’s account is not convincing, ultimately. But it does seem to me to have certain things going for it, which is what I said about the quantificational ambiguity response (of which Hofweber’s account seems to be a type). This general type of view disagrees with the Quinean about the single meaning (or use) of ordinary-language quantifiers. It may also disagree with the thesis that being and existence are univocal. These disagreements would result, of course, in a denial premise (1) of the OIAA, one of the two uniquely Quinean premises.

Notice something else about Hofweber’s account. Like Carnap, he too talks of the internal/external distinction. For both of them, the meaning of an existential sentence is governed in part by reference to its “position” with respect to the linguistic system of the speaker. For both of them, ‘internal’ implies that the quantifier does not carry or indicate ontological commitment. That is, internal inferences do not not answer ontological questions; and internal questions are not the kind that ontologists ask.

But they differ as to the relevance of external sentences for ontology. Carnap believed that external questions are meaningless, because they are not asked from within a framework. Hofweber, on the other hand, believes that statements contag external quantifiers—\footnote{10I should also remind you—we saw this in Chapter 3—that the inferential reading seems to be a specific instance of the objectual reading. Hofweber does not address this issue.}
objectual quantifiers—are meaningful; and, furthermore, they are relevant to ontology. Therefore, he says, “the methodology for settling questions about ontological commitment will have to be to see what statements with external quantifiers we accept and believe to be true.”

5.3 Azzouni and CRD’s

So Hofweber has an alternative meta-ontology. One that is similar to Quinean meta-ontology but different in the way it understands quantification (and perhaps existence). We saw also that the Meinongian has his own meta-ontology, one that also understands existence and being differently than the Quinean. In all three cases—the Quinean, the Meinongian, and the neo-substitutionalist—have criterion for what a discourse ontologically commits us to. How does one adjudicate between meta-ontologies, and between these criterion of commitment in particular? How does one decide on a meta-ontology; what is the correct meta-meta-ontology? Jody Azzouni’s criticism of Quinean meta-ontology is that there is no principled way to choose from among competing criteria “for evaluating the ontological commitments of a discourse.” And of course in doing so, he is critiquing all those meta-ontologies that profer some sort of method for determining one’s ontological commitments (like Hofweber’s, for example).

Azzouni begins by making a distinction between a criterion for

what exists (a CWE) and a criterion for recognizing what a discourse commits us to (a CRD).

Philosophers have long argued over alternative CWEs. A nominalist, for example, claims that only concrete objects (of one sort or another) exist; platonists notoriously think otherwise. Other philosophers may also claim that anything that exists is causally efficacious, or perhaps, that anything that exists is susceptible to observation (e.g., via the senses, or with the aid of acceptable instrumental interventions), or in space and time, or, and so on. (Azzouni 1998, p. 2)\textsuperscript{12}

Quine, he says, only offers a CRD (which we’re already very familiar with). Perhaps Quine believes that CWE’s should be determined only by scientists.

Or better yet, the scientist simply determines what’s \textit{true}, and the Quinean logician then reads off what exists from a regimented version of what’s true. So, actually, it’s \textit{nobody’s} job to dictate CWEs.\textsuperscript{13}

But CRD’s and CWE’s typically work together. We saw this earlier. If one doesn’t like abstract objects because one’s CWE prohibits them from membership in one’s ontology, then we will try not to utter sentences that, according to our CRD, would commit us to abstract objects.

Now Azzouni presents some rather interesting and exotic alternative CRD’s, ones that “in the right circumstances (i.e., among philosophers)...may raise eyebrows.” He claims that it’s not neces-

\textsuperscript{12}Recall my own CWE: everything that exists is either God, part of God, or has been created by God.

\textsuperscript{13}Azzouni 1998, p. 15, n. 6.
sary that the existential quantifier “carry the burden of ontological commitment.” For example, imagine that we take our scientific theory and regiment it in exactly the way that Quine would wish. Imagine also that we accept the objectual reading of quantification. This still need not, says Azzouni, commit us to the same objects as it would using the Quinean CRD. We could, for example, choose some other predicate to take on the ontological commitments, a predicate other than ‘exists’. That is,

one can provide a special predicate, ‘susceptible to observation’ say, or ‘causally efficacious’, or, and so on, and recognize the ontological commitments of a discourse to be solely those objects falling under the extension of that predicate, to treat only those objects as existing (or real). Indeed, any of the alternative candidate CWEs mentioned above can be impounded as the intended interpretation for such an “existence” predicate.\(^{14}\)

Azzouni says that there is no way, given the tools of philosophy, to say that this CRD is any better or worse than Quine’s. In general, he tries a number of ways one might adjudicate between conflicting CRD’s, finding each of them wanting. I will look at only one of these ways here, the one he seems to think is the most likely to try.

First of all, notice that the above “existence predicate” move, as Azzouni calls it, seems to just distort the ordinary meaning of the sentences in question.

Admittedly the move contemplated here is weird-sounding in just the way Quine has described as “ruining the good only word ‘exist’”\(^1\): we can find ourselves saying,

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\(^{14}\)Azzouni 1998, p. 3.
that is, *in the vernacular*, that there are things which nevertheless don’t exist (or don’t really exist). For example, if our “existence” predicate is ‘susceptible to observation’, we’ll find ourselves asserting that there are numbers, but they don’t exist (because they’re not susceptible to observation, say). And I won’t deny that in the right circumstances (i.e., among philosophers) this may raise eyebrows. But linguistic intuitions about what “sounds weird” are not reliable indications of incoherence.\textsuperscript{15}

He goes on in a footnote to say—at least it seems like he says this—that this problem of sounding weird “doesn’t arise in the regimentation proper unless one insists on subvocalizing appearances of the existential quantifier with the ordinary language phrase, ‘There is’.”\textsuperscript{16}

Azzouni seems to believe that we can simply stipulate what the quantifier-idiom means. I will not address again the fact that it is ultimately the ordinary language meanings of quantifiers that is important when it comes to Quinean meta-ontology, not the formal notation. But he also seems to believe that—in the above case at least—we can simply ignore the quantifiers when looking for our ontological commitments, only admitting such commitments when we come across, for example, the predicate ‘susceptible to observation’. And this *does* sound weird. But it sounds weird because the alternate CRD just ignores what the sentences plausibly mean on their face; it entirely ignores the quantifiers. It would be one thing if, to accompany the existence-predicate-CRD, there was an explanation of what the quantifiers are doing if not saying that certain objects

\textsuperscript{15}Azzouni 1998, p. 4.

\textsuperscript{16}Azzouni 1998, p. 16, n. 9.
exist. But he doesn’t give any explanation (unlike the substitutionalist, for example).\textsuperscript{17}

But Azzouni says more about linguistic intuitions. There is evidence, he says, that CRD’s cannot be chosen based on linguistic intuition. Intuitions can often be amassed on both sides of an issue. He says that, on the one hand, Quine’s CRD is supported by the linguistic intuition that ‘there is’ means, well, ‘there is’.

[Provided] we treat the first-order (objectual) existential quantifier as a translation of the ordinary-language phrase ‘there is’, one can urge that if our best theories force us to say, “There are numbers, there are functions, that’s enough to ontologically commit us to the existence of numbers and functions. But the intuitive force for such a position, I must stress, largely arises from the antecedent impression that the ordinary language ‘there is’ already carries ontological weight.\textsuperscript{18}

But then on the other hand there are conflicting intuitions.

And so, on the other hand, a good case can be made that physicists, and other scientists took, usually regard their employment of mathematics to be ontologically neutral. Despite the (indispensable) use of quantification over mathematical entities to formulate scientific theories, and to make empirical inferences, mathematical talk is taken to be true even though, simultaneously, it isn’t take to be about anything “real.” This gives powerful intuitive evidence that some uses of the ordinary language ‘there is’ (e.g., in the context of applied mathematics) do not carry ontological weight.\textsuperscript{19}

\textsuperscript{17}As far as the use of linguistic intuitions is concerned, recall Quine, in “On What There Is,” primes the philosophical pump with them. For example, it sounded strange to say that ‘There is such a thing as Pegasus, but Pegasus doesn’t exist’.

\textsuperscript{18}Azzouni 1998, p. 4.

\textsuperscript{19}Azzouni 1998, p. 4.
So there are intuitions that seem to weigh in favor of one CRD and those that seem to weigh in favor for another. And in this case, the intuitions have not put an end to the debate once for all. Therefore, intuitions must not be able to adjudicate between CRD’s.

Is this Azzouni’s view? I’m reluctant to saddle him with it, but it’s difficult to avoid doing so—at least given what he says. But notice that his line of reasoning—if it is his line of reasoning—could also be applied to *arguments*, not just to intuitions: there are arguments on both sides of the issue and yet there is still significant disagreement; apparently arguments cannot adjudicate between positions. There is evidence that Azzouni believes this line of reason about arguments, too. He goes on to examine two ways we might *argue* for one CRD over the other and concludes that neither sort of argument could do the job. He eventually concludes from this that it is “philosophically indeterminate what CRD is suitable.”

Of course I’m not saying that Azzouni has presented *no* evidence that it is philosophically indeterminate what CRD is suitable. But it’s a big job to argue for this sort of indeterminacy and the evidence he provides doesn’t even show that it’s *unlikely* (and this is his stated goal of the paper).

In fact, I think the same conflicting intuitions he presents could provide us with good evidence for a particular CRD. Consider the two CRD’s in question in this case. The pro-Quinean intuitions support of course the Quinean CRD. The conflicting sorts of intuitions

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20 Azzouni 1998, p. 11.

21 For completeness let me point out that I take the Quinean CRD to include
support, as far as I can tell, a substutionalist view of quantifiers. Now, I have both sorts of intuitions. It’d be nice to preserve them both.\footnote{22} We have seen one CRD that might preserve both kinds: the CRD provided by the quantificational ambiguity position. Recall that according to quantificational ambiguity our quantifiers are at times used along the objectual lines, and at others along the substutionalist lines (or perhaps even along some other line). In this case, the “conflicting” intuitions really point to this other CRD. If so, then intuitions can adjudicate—or at least help do so—between the three conflicting CRD’s.

Azzouni’s view about the indeterminacy of CRD’s can be seen as an attack on Quinean meta-ontology in general. His point is that we do not have any philosophically legitimate way to choose a meta-ontology—at least a meta-ontology that gives, or is primarily, a CRD.\footnote{23} And so we cannot tell which CRD is a good one (presumably he wouldn’t conclude that they’re \textit{all} good, and equally so). So how would one go about answering the ontological question, according to Azzouni? By a CWE? Some other way? Actually, he seems to be fairly pessimistic about the prospects for meta-ontology—and therefore ontology—of any type. In addition to thinking that it is philosophically indeterminate which CRD is appropriate,

\begin{itemize}
\item the theses of existence and quantification, the normative principle of ontological commitment, and the views about the proper use of replacement sentences.
\end{itemize}

\footnote{22}{The use of intuitions in philosophy is widespread, important, and controversial. I can only say here that I think that they’re indispensable to philosophy and often the foundation of an argument. See DePaul and Ramsey 1998.}

\footnote{23}{Another sort of meta-ontology is one that gives a CWE and not a CRD.}
the question of what there is, understood in its philosophically broadest sense, is equally philosophically indeterminate.\textsuperscript{24}

So it seems then that Azzouni is one of those philosophers who thinks that metaphysics—or at least ontology—is, if not meaningless, impossible.

And he has more than this in common with Carnap.

I don’t mean that what there is is philosophically indeterminate; for I glibly talk about what there is, based on my knowledge of science and the world around me (pretty much the way you do). I say, “there are chairs,” “there are neutrinos,” “there are prime numbers,” just like you. It’s only when someone asks me, “but do numbers really exist?” that I’m taken aback (and for good reason): that’s the question which is indeterminate.\textsuperscript{25}

This distinction between sentences like ‘there are prime numbers’ and ‘numbers really exist’ certainly hearkens back to an internal/external-type distinction. I’m not sure if this is what he has in mind, but the similarities are suggestive. And like Carnap, Azzouni leaves no room for the practice of ontology. And like Carnap, his meta-ontology is basically this: we can’t answer the ontological question.\textsuperscript{26}

\textsuperscript{24} Azzouni 1998, p. 11.

\textsuperscript{25} Azzouni 1998, p. 4.

\textsuperscript{26} He goes on to say what sort of philosophical questions are left surrounding, say, mathematical objects: “the important question, the important philosophical question, about mathematical objects is not whether (in contrast with robuster empirical objects) they exist or not, but what kind of epistemic story we should tell about what mathematicians know, how they know what they know, and what story we should tell about the role mathematics plays in our conceptual scheme—doing so will simultaneously reveal what sort of role existential commitments to mathematical objects play (relative, of course, to one or another regimentation of scientific discourse); but in doing this, there is no need (and no way) to evaluate whether such objects really “exist” or not.” (Azzouni 1998, p. 13.)
5.4 Melia, Indispensability, and “Weaseling”

We have seen three objections to Quinean meta-ontology. But none of the discussions of these objections have really had the OIAA in view. But in fact, both Hofweber and Azzouni (and probably Carnap, but the evidence is scanty there) are motivated primarily by the Quine-Putnam indispensability argument. But this, we saw is just a species of the OIAA, and their attacks can be seen as directed against premise (1), the premise that contains much of Quinean meta-ontology.

But now we come to a philosopher who objects to a number of the OIAA’s premises and so our work in Chapter 4 can now bear fruit.

In his article “On What There’s Not” Joseph Melia asks us to consider the following sentence:

(A) The average mum has 2.4 children.

Of course, one logical consequence of (A) is that there exists an average mum. But the concretist, of course, does not believe that there is an average mum and so cannot use (A)—at least according to the OIAA. As Melia puts it, the concretist cannot include (A) in his “best theory” of the world.

But by omitting (A), Melia points out, the concretist’s best theory of the world will also omit “some truth about the concrete part of the world.”

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For [(A)] not only entails that the average mum exists—in the right circumstances it will also entail many truths about how many children and mothers there are. For, if [(A)] is true, then the following disjunction holds: *either* there are five mothers and twelve offspring, *or* there are ten mothers and twenty four offspring, *or...* (Melia 1995, p. 224)

The concretist believes in mothers and offspring and also believes that there is a determinate answer to the question of how many of each there are. The disjunction would express one of the implications that (A) has for the concrete world and does not imply the existence of an average mum or any other abstract object—it refers only to ordinary mothers and children. So why doesn’t the concretist just write down the disjunction and be done with it? Well, for one thing, he can’t. The disjunction would be infinite and he could never actually write it down.  

5.4.1 Adequate Replacement Criterion I

Of course, there are still options open to the concretist. As we saw in earlier chapters, he might try to find a *replacement* for (A), one that does not imply that there is an average mum or other abstracta. Let’s try this. But first recall that there are competing criteria for

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28Melia 1995, p. 224. This seems, however, to meet the OIAA’s requirement that we be able to find a replacement *in principle*. We’ll look at this possibility below. For now I want to register my own belief that I don’t see a compelling reason for not writing down only what we wish of the disjunction (in fact, we already did this). It seems that if we can have “evidence that the above disjunction did indeed hold,” as Melia says, then in some perfectly good sense we already *believe* the disjunction; so why can we not write down what we believe? This is done frequently with the use of elliptic devices like ‘...’ in mathematics and formal logic. But let us assume that the inability to write out the entire disjunction *is* a problem, since Melia does.
what counts as an adequate replacement sentence. What criterion shall we use? Melia begins with the following:

(R1) An adequate replacement sentence is one that does the work of the original while not implying the existence of abstract objects.\(^{29}\)

This is a popular version and we saw in Chapter 2 that van Inwagen uses it also. But it’s not very helpful as I complained in that chapter. It’s just too vague to evaluate as it stands.\(^{30}\) And so Melia makes a clarification. What he really means—being a concretist—is

(R1') An adequate replacement will have exactly the same implications for the concrete part of the world as the original has while not implying the existence of abstract objects.\(^{31}\)

The work to be done by the original, then, is that of saying (and implying) all and only those things about the concrete world that the original did.

What then, given this criterion, would be an adequate replacement for (A)—and a sentence that we can actually write down, unlike the infinite disjunction we considered earlier? There is good and bad news here for the concretist. The good news is that we can

\(^{29}\)He balks at the term ‘paraphrase’. “Intuitively, P is a paraphrase of Q if P means the same as Q. But paraphrases in this sense are useless for our purposes. How can P and Q have the same meaning whilst only one of them is committed to a certain type of entity?” Melia 1995, p. 224, note. This, of course, is the same point that Alston made in Alston 1956. And we saw that this was not an effective objection to paraphrasing.

\(^{30}\)This vagueness, however, is not an accident. Van Inwagen’s real concern is whether the concretist accepts the replacement. To be sure, he’ll likely apply dialectical pressure to try to convince the concretist that the acceptance of a given replacement leads to untoward consequences.

\(^{31}\)Melia 1995, p. 224, note.
easily find a replacement sentence that will have exactly the same consequences for the concrete world that (A) has. The bad news is that it’s difficult—perhaps impossible even—to find one that doesn’t imply the existence of some object that is “unkosher” by concretist lights. For example, the sentence ‘The number of offspring divided by the number of mothers equals 2.4’ has the same consequences for the concrete world that (A) has (it too implies the infinite disjunction, for example) but, alas, it also implies the existence of at least one number. We’ve been in this predicament before (see Chapter 3).

Melia believes—rightly it seems to me—that this bad news is not limited to (A). There will be many troublesome abstracta-implying sentences for which replacements can readily be found but which still imply the existence of some other type of abstract object. In fact, Melia believes that we cannot find any adequate replacement sentences (in the above sense) to express many of the things we believe about the concrete world. If he’s correct, then quantifying over abstract objects would indeed be indispensable. In terms of the OIAA, Melia seems to concede premise (4).

So here’s the concretist’s problem with respect to (A), according to Melia. For one thing, the concretist cannot include (A) in his best theory of the world nor can he find an adequate replacement for it. But neither can he include only the concrete implications of (A) since, in this case anyway, at least one of them would be an infinite disjunction. And giving up his belief in the disjunction is not an option either; there may be very good evidence that the disjunction
is true. (Notice that this last point is, in effect,—if we generalize—a
concession to premise (2): many of the beliefs that imply abstract
objects are indispensable.) Furthermore, omitting (A) from his best
theory of the world would make his theory less comprehensive than
is desirable since (A) has implications for the concrete world that
would be omitted as a result. As Melia says, in such a case “we run
the risk of missing out [on] a truth of the world.”32 (A) is the closest
we can get to expressing our belief in the disjunction, for example,
and we can’t plausibly give up our belief in that (if our evidence for
it is strong enough).

It looks, then, like the concretist has a choice to make. Either
accept a theory of the concrete world that is impoverished compared
to that of the abstractist or else give up his concretist scruples and
join the abstractist ranks. With respect to the latter, “Perhaps,
under such circumstances, the benefits outweigh the costs;” perhaps
he should just admit that “average mums and/or numbers are part
of the furniture of the world.”33

5.4.2 Adequate Replacement Criterion II

There’s another option however; a tertium quid. The concretist may
not need to choose between either accepting an abstractist theory
or missing out on a truth about the concrete world. Recall that,
in Chapter 2, I made the claim that one of the issues that should


33Melia 1995, p. 224.
become a priority in the debate over ontology—given an adherence to a broadly Quinean meta-ontology—is that of what counts as the proper criterion of adequacy for replacement sentences. The above dilemma was the direct result of the following requirement: a replacement sentence should have all of the same consequences for the concrete world as that of the original sentence, with none of the unseemly abstractist consequences. But what if we could find a plausible alternative criterion?

Reconsider (A). There is “something right” about it, Melia says. When using (A) in ordinary circumstances we use it to talk about mothers and children, to express something about their cardinality. So, he says, “why not count up how many there are of each, and include this sentence in [our best theory of the world]?” And if we did this, the sentence we write need not be of the form ‘The number of mothers is $x$ and the number of children are $y$’ (as we saw before, this would commit us to the existence of numbers). Rather, we can write down a sentence that states exactly how many mothers and children there are using standard first-order logic. And we can do this without committing ourselves to numbers or any other abstract objects.\footnote{“As is well known,” he says, “a sentence reporting how many $F$s and $G$s there are can be written in the first-order predicate calculus in a way which commits us to nothing more than $F$s and $G$s.” (Melia 1995, p. 225)}

In this case we will have written down a replacement for (A) that does not involve the existence of any objects above and beyond

\footnote{Melia 1995, p. 225.}
those we wished to talk about in the first place. He calls such a sentence—a sentence that describes the part of the world we wished to talk about without “using” objects we didn’t wish to talk about—an *intrinsic* description.\footnote{Melia 1995, p. 225. As an aside, one might think that he’s referring—even if only loosely—to the intrinsic/extrinsic distinction used by Hartry Field (see, for example, Field 1980, p. 27, where Field describes “the intrinsic facts about physical space” as those “facts about physical space which are laid down without reference to numbers in Hilbert’s Axioms”). If so, then Melia’s use is a more general application of this distinction.} Melia’s new and improved criterion for concretistically adequate replacement sentences is something like the following:

\begin{itemize}
\item[(R2)] An adequate replacement sentence is one that gives an intrinsic description of that part of the concrete world we wished to talk about via the original, without implying the existence of abstract objects.
\end{itemize}

Whereas criterion (R1’) required that an adequate replacement have all the same implications for the concrete world as the original, (R2) only requires that an adequate replacement have the implications we care about. And our replacement for (A)—let us call it (A2)—which describes exactly how many moms and kids there are, meets this criterion.

But it does even more than that! It has additional virtues, virtues other than not implying the existence of average mums or numbers. A theory including (A2) will be much more precise than the theory that includes (A), all else being equal. That’s because (A2) tells us exactly how many mothers and children there are, eliminating the remaining infinite number of disjuncts in our troublesome disjuncts...
tion. And as we saw, (A2) captures the “something right” about (A)—presumably the cardinality of mothers and children—without referring to anything other than those objects in which we were interested in the first place. It much more directly expresses what we really believe about the concrete world. Whereas, on the old replacement criterion (R1'), (A) was the closest we could come to expressing what we were interested in about the concrete part of the world, (A2) just is what we were interested in.

If Melia is right about all this then he might now be able to deny premise (4)—it looks like he has a promising criterion that may allow him to dispense with quantification over abstract objects—at least for the things he needs or wants to say about the world.

Let us try this new criterion (R2) out on van Inwagen’s “spiders” sentence,

(D) Spiders share some of the anatomical features of insects.

There is certainly something right about this sentence. As we saw in the last chapter, we cannot plausibly deny the belief that we use (D) to express in our ordinary business of life. But what exactly is it that we’re trying to express with (D)? That’s difficult to say. But we needn’t worry ourselves too much about that since the criterion of intrinsic descriptions does not require synonymy. Rather it only requires that the replacement accurately describe the part of the concrete world we wished to talk about in the first place, while referring only to denizens of that part of the world.

What then might an adequate replacement for (D) look like?
Well, it will only refer to spiders and insects, as well as to things like exoskeletons and segmented legs; these were the objects we wished to say something about. So then, Melia would suggest that we discover exactly those things that spiders have that insects also have. Suppose we discover that spiders and insects both have exoskeletons and segmented legs; (D)’s replacement becomes something like

(D2) Spiders and insects have segmented legs and exoskeletons.

A replacement can be found, then, that doesn’t refer to concepts, properties, or any other unkosher entities, contra van Inwagen. But of course (D2) is only adequate if the criterion itself is adequate. Yet notice that (D2) won’t have even the same concretist implications that the original has. It does not, for example, imply that ‘Either spiders and insects have exoskeletons or spiders and insects have exoskeletons have composite eyes or spiders and insects have antennae or...’

But there is a general and more significant problem with intrinsic descriptions. They will typically fall prey to what van Inwagen calls the embedding problem. Remember, one of the advantages that (A2) would have over (A) is precision. But this precision is exactly what would make (A2) inadequate for use within or in conjunction with many of the other important sentences in which (A) can be used, sentences that the concretist will not want to leave out of his theory of the world. (A2) could not, for example, be used to replace (A) in the following sentence: ‘The average mum has 2.4 children and this is likely to be true for at least the next ten years’. The exact
number of mothers and children will not likely remain constant over time.\footnote{van Inwagen, private communication.}

But here we need not haggle over Melia’s replacement criterion. For all its leniency, there are still clear cases of sentences for which no replacement can meet it.

One sort of case that Melia realizes won’t meet (R2) is that in which such inability is due to what he calls “ineliminable ignorance.” In the case of mothers and children we could plausibly determine exactly how many mothers and children there are. But consider a similar sentence:

(E) The average star has 2.4 planets.

(E) has similarly undesirable consequences for the concretist—the implication of an average star and an infinite disjunction. Let us then similarly try to find an intrinsic description—a description of the concrete world that uses only kosher entities: stars and planets. But now the concretist encounters a problem.

Perhaps the implications for the concrete world that this sentence has are indeed correct—suppose that there are precisely twentyfour zillion orbiting planets and ten zillion stars. But whilst we may have very good evidence that the average star has 2.4 planets, we may not have any evidence at all that there are precisely twentyfour zillion planets and ten zillion stars. And our chances of counting up all the stars and planets are, to say the least, slim. Indeed, I think that our ignorance is in this case ineliminable. (Melia 1995, p. 226)

This problem is similar, of course, to the one we encountered when we
wanted to only write down the consequences of (A) for the concrete world: we could not, due to certain limitations on our part. But we could in that case count up all the mothers and children. In our present case, however, cannot count how many stars and planets there are and therefore cannot know how many of each there are. It looks as if the concretist is stuck with including (E) in his best theory of the world if he sticks with (R2) (assuming he does not want to have a theory that says nothing about how many stars and planets there are).

Not only that, there is yet another class of recalcitrant sentences that provides too great an obstacle for the concretist to overcome via intrinsic descriptions. In these cases, our limitations are not epistemic but linguistic—we “lack the linguistic resources” to say what we need to about the concrete world.

For example, in order to express a comparison of the length of, say, two bridges—

(F) Bridge $a$ is twice as long as bridge $b$

—we will most likely need to use relations that imply the existence of numbers.\(^{38}\) For if bridge $a$ is twice as long as bridge $b$ (or $\pi$ times as long, or root two times as long) and not merely the same length, then we must use a relation between two concrete objects and a number. And even if we used primitive relations between concrete objects (for example, ‘$x$ is-$\pi$-times-as-long as $y$’) rather than relations between concrete and abstract objects, we would need to learn their meaning.

\(^{38}\)This is a slight modification of Melia’s example. See Melia 1995, pp. 227–28.
in some indirect way. Yet we cannot do this for all the infinitely many predicates we might need.\textsuperscript{39} Whatever the case may be, it is—so Melia says—implausible to take such predicates as primitive. And therefore we cannot say what we need to about the bridges without quantifying over numbers at some point. At least according to him.

Although I’m doubtful that (F) really does imply the existence of numbers, I’ll assume that it does.\textsuperscript{40} What is important here is that Melia admits that the kinder, gentler (R2) will not permit the concretist to avoid quantifying over abstracta. And this seems right.

5.4.3 The Indispensability of Quantifying over Abstracta

So (R2) is inadequate. But as bleak as things look for the concretist, things get worse. Melia, in effect, admits that there is no replacement criterion that will allow us to avoid quantification over abstracta while still allowing us to say the things we wish about the concrete part of the world. There are facts about the concrete world that we simply cannot express without referring to unkosher objects.

Consider mathematical objects, for example. In “Weaseling Away the Indispensability Argument” Melia considers the following unsuccessful attempt that a concretist might make in order to avoid quantifying over mathematical objects in his best theory of the world.

\textsuperscript{39}Melia 1995, p. 228.

\textsuperscript{40}Van Inwagen pointed out to me that Goodman and Quine show in their 1947 essay “Steps Toward a Constructive Nominalism” that such sentences can be nominalized. See also Yablo unpublished pp. 29ff.
He calls this unsuccessful attempt the \textit{trivial strategy}.\footnote{For an example of someone who believes that the trivial strategy works see Balaguer 1996, p. 302.}

Call our current best theory of the world—which is formulated, in part, by sentences that quantify over mathematical entities—\textquote{T}+. It seems possible, however, to formulate a concretist theory (call it T) of the world that has all the same consequences of the concrete world that T+ has but without referring to mathematical objects.

Given any unkosher theory [T+] simply partition the predicates into two classes: those that are nominalistically acceptable and those that are not. Let theory T be those sentences that are logically entailed by [T+], yet whose vocabulary contains only nominalistically acceptable predicates. Since every nominalistically acceptable sentence logically entailed by [T+] is logically entailed by T, it would seem as if T has all the kosher consequences of [T+] and none of the unkosher ones, and thus can serve as the nominalist’s replacement theory. (Melia 2000, p. 458)

Melia goes on to show that there is a problem with this strategy. The problem is that there is no guarantee that T will include all the same consequences for the concrete world that T+ implies.\footnote{Although Melia actually \textit{argues} for this claim (see Melia 2000, pp. 459–61), I will merely assume that he is correct on this score since his conclusion will allow us to concentrate on what I think is most important about his objection to the OIAA.} But this is surprising because T \textit{just is} all of the implications of T+ for the concrete world which are formulated in terms of sentences that quantify over concrete objects only. If Melia is right, T+ can have concrete implications that cannot be expressed using only the
concrete vocabulary.\textsuperscript{43}

The point is this: “mathematics,” for example, “can enable us to express possibilities about the concrete world that may not be expressible in nominalistically acceptable language.”\textsuperscript{44} Melia’s general conclusion then is that “there are platonistic theories that have consequences for the nominalist world that go beyond the set of sentences in the nominalist language such theories entail.”\textsuperscript{45} This is certainly a big concession to the abstractist, and so Melia finally grants the crucial premise (4) of the OIAA: quantification over abstracta is indispensable. And since he also accepts the first two premises, Melia is leaving himself with little room to maneuver.

But there is still a little room; Melia finds it in denying premise (3). Premise (3) is the normative principle that says we shouldn’t make assertions unless we’re prepared to believe their implications, unless of course we can show how, in principle, we could replace the original assertions with others which don’t have the undesirable implications.

5.4.4 Don’t Believe Everything Your Theory Implies

According to Melia, the concretist should concede premise (4). We cannot not express all that we wish about the concrete world with our kosher theory $T$. To express everything we wish, we will have

\textsuperscript{43}Melia 2000, p. 461.

\textsuperscript{44}Melia 2000, p. 455.

\textsuperscript{45}Melia 2000, p. 455.
to succumb to using a theory that includes references to abstract objects. T, in other words, is clearly not our best theory, since it is silent about parts of the concrete world—and therefore, so must we be if we insist on using it. It looks, then, as if the concretist must look on longingly as the abstractist says things about the concrete world that concretist only wished he could say. T+ is off limits to the concretist.

But must a concretist go against his intellectual scruples by using T+? No, says Melia. The concretist can—and should—go ahead and admit that T+ is the best theory of the world that we have and use it. However, he says that the concretist need not believe everything that T+ implies. He explains:

T+ is still our best theory. If we omit ‘the number of orbiting planets divided by the number of stars equals 2.4’ we fail to represent something true about how many stars and planets there are. So what should our attitude be towards T+ be? Clearly, we should keep using it, but we shouldn’t believe everything it entails. Some of the things T+ entails, such as the sentence ‘there are numbers’, simply aren’t true... T+ must be partly fictional and partly factual. (Melia 1995, p. 227)

For example, the fictional part of a theory that contains (E) is ‘There is an average star’; the factual part is ‘Either there are twelve orbiting planets and five stars or there are twentyfour orbiting planets and ten stars or...’

In essence Melia is denying premise (3) of the OIAA, the “no double-talk” premise. But isn’t to deny (3) to deem either lying or inconsistency as acceptable? How can we rationally affirm sentences
if we *knowingly* do not believe some of their strict, logical implications? We might put the question another way, as van Inwagen does:46 If a proposition is a set of possible worlds, wouldn’t a denial of (3) mean that some set contains an object that is not a member of some of its supersets? And as Melia asks,

> [How] can a nominalist consistently accept \([T^+]\)? Surely it is simply inconsistent for [him] to use mathematical entities, assert sentences which entail that these entities exist, and then turn around and deny that there are such things as these entities. How can anyone coherently assert P, know that P entails Q, yet deny that Q is the case? How could it ever be rational to assert that P whilst denying a logical consequence of P? (Melia 2000, p. 466)

This is exactly the sort of thing that Quine detested, calling (something like) it “philosophical double talk, which would repudiate an ontology while enjoying its benefits.”47 Quine goes on to say, “Reflective persons unswayed by wishful thinking can themselves now and again have cause to wonder what, if anything, they are talking about.”48

Melia gives two lines of support for his denial of (3). The first we have seen. We need not believe in all the implications of our current theory because we know that it gets some things wrong; namely, it says that there are abstracta. To put it another way, we know that there’s a better theory that gets it right, not implying the existence of

46PRIVATE COMMUNICATION.

47Quine 1960, p. 242.

48Quine 1960, p. 242.
abstracta. This better theory can dispense with abstracta-implying sentences. Of course we humans could ever have it, but a Laplacian intelligence, for example, could.

It’s important to see that this is still in accord with denying (3) because Melia is not claiming that we can in principle find replacement sentences (to claim this would be to accept (3)). Rather the Laplacian intelligence can find a better theory; that is, according to Melia, the only requirement is that we must be able to find, in principle, a replacement theory. We need not be able to replace all the individual sentences of our own theory, a theory which we know is inaccurate anyway.49

Knowing that our current theory is mistaken may be a good reason to deny some of the things it says. But more is needed. Melia says that we can continue to rationally use the mistaken theory. We’d like an explanation of just how we can still legitimately use it. And here’s where Melia’s second line of support comes in.50

Melia thinks that using T+ is not engaging in double talk and that we can find cases in the ordinary business of life where we rationally do something relevantly similar. He tells a story of Joe, a concretist who likes T+ because it’s the theory he can have. Yet Joe realizes that T+ implies that there are numbers. He believes that T+ gets things right about the concrete world but that it’s wrong with respect to mathematical objects. So then,

49This line of reasoning is found in Melia 1995 and not in Melia 2000.

50This is found in Melia 2000.
What Joe wants to do is subtract or prune away the platonistic entities whose existence is entailed by \([T^+]\). Accordingly, in communicating his belief about the world, Joe might say “\([T^+]\)—but there are no such things as sets.” In doing so, he is asserting some sentences, whilst denying one of their logical consequences. (Melia 2000, p. 466–67)

The first thing Melia claims (as we saw) is that such talk is not double talk; at least if “double talk” means to knowingly hold inconsistent beliefs. For Melia, to believe in only some of the logical implications of the sentences we assert is not to be inconsistent.

I emphasize that Joe does not simultaneously hold contradictory beliefs. Just because, in the process of telling us his beliefs about the world, Joe asserts all the sentences of \([T^+]\), it does not follow that Joe believes all the sentences of \([T^+]\). Indeed, since Joe believes there are no abstract objects, he will explicitly say that \([T^+]\) is false. So why is Joe asserting \([T^+]\) if he doesn’t believe it? Because the mathematical structure in \([T^+]\) allows Joe to express possibilities for the concrete part of the world—possibilities that are not expressible without that structure. Joe is taking advantage of the mathematics in \([T^+]\) to communicate or express his picture of what the world is really like.\(^{51}\)

This passage is a bit puzzling. Let us take for granted that Joe does not believe a blatant contradiction, that he does not believe, say, ‘There are numbers and yet there are no numbers’. What is Joe’s attitude towards ‘Bridge a is twice as long as bridge b’? Does

\(^{51}\)Melia 2000, p. 467. Stephen Yablo says something along a similar vein: “To express the infinitely many facts in finite compass, we bring in numbers as representational aids. We do this despite the fact that what we are trying to get across has nothing to do with numbers, and could be expressed without them were it not for the requirements of a finitely based notation.” Emphasis added. Yablo unpublished, p. 15. We will look more at this idea in Chapter 5.
he believe it? Will Joe, a building contractor, procure the correct amount of material when he builds these bridges? Will Joe act as if bridge $a$ is twice as long as bridge $b$? Of course he will. And aren’t Joe’s actions the best indicator of what he really believes? And if Joe does believe that bridge $a$ is twice as long as bridge $b$—that is, he believes this is true—how can he consistently deny what the truth of the original belief required: namely, that there are numbers?

I think Melia would say that Joe—rather than believing ‘Bridge $a$ is twice as long as bridge $b$’—believes the “something right” about ‘Bridge $a$ is twice as long as bridge $b’’, even if the “something right” is inexpressible. Even so, this would not explain exactly what Joe’s attitude is towards ‘Bridge $a$ is twice as long as bridge $b’’. We’ll return to this problem later.

Whatever Joe is doing, this much is clear: it seems a bit suspicious. And this is just the sort of suspicious activity that Quine had in mind. Joe may not necessarily believe inconsistently, but he certainly seems to be speaking inconsistently. He seems to be engaged in “double talk, which would repudiate an ontology while enjoying its benefits.” And this is still simply incoherent by Quine’s lights.

But Melia gives two examples, examples of how people rationally do something similar in everyday life. If Melia can show that the particular phenomena he has in mind is not an ad hoc explanation, then he will have provided at least some evidence that his account is

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52 Of course, for Quine the behaviorist, the answer is obvious. Joe’s beliefs are nothing more than his actions (if Quine’s behaviorism were a reductionist version; but it is really best construed as an eliminativist version and therefore during our talk of beliefs, we’ll have to leave Quine out of it).
on the right track. He prefaces his two examples with the following characterization of how we talk about the world.

In general, we assert sentences in order to present a picture of the way we think the world is. We normally think of each successive sentence in our story as adding a further layer of detail, either making explicit what was only implicit before, or filling in gaps and adding details not filled in before. With each sentence, our picture of the world becomes a little more filled in, the story we are telling a little more determinate. (Melia 2000, p. 467)

He then asks,

But must our stories about the world necessarily take this form? Must we think of each successive sentence as adding a layer of detail, or filling in the gaps which were left by our previous sentences? Why can’t we understand some of the later sentences as taking back things that were said earlier on in the story? Why can’t we understand the later sentences as erasing some of the details implied by the earlier part of the story? or as changing some of the implications of the previous parts of the story? (Melia 2000, p. 467)

So Melia is asking us not to consider Joe’s attitude towards (F), ‘Bridge a is twice as long as bridge b’, until the story is over. We must wait until the end of Joe’s presentation before we can understand his picture of that part of the world. Joe believes some of the implications of (F), just not all of them. Perhaps Melia’s examples can explain how Joe can do this without being inconsistent.

Melia’s first example invokes our practice of pointing out exceptions to some universal claim. When we say things like, “Everybody who Fs also Gs. Except Harry—he’s the one exception”\(^53\) we take

\(^{53}\)Melia 2000, p. 467.
back what we had said earlier (in this case the immediate sentence). If we had stopped mid-story—at “Everybody who \( F \)s also \( G \)s”—and left it at that, then our story would have been false. However, by taking the story to completion, by pointing out that Harry is the one exception, the story-as-a-whole is true—even if one of its sentences is false. Just like Joe, we have asserted something false and, just like Joe, we don’t believe this false assertion. What we really believe are both sentences together.

That’s the first example. For his second example, Melia considers a case where we might describe a two-dimensional world by first describing a world of three-dimensions and then “taking back” one of the dimensions. That is,

we pick out a possible two-dimensional world... by considering the surface of a sphere. Now, a sphere is a three-dimensional object—the collection of all points which are \( n \) metres or less away from point \( p_0 \), the center of the sphere. And the surface of a sphere is the collection of points precisely \( n \) metres away from \( p_0 \). But of course, in a two-dimensional world which is the surface of a sphere there is no point \( p_0 \) which is \( n \) metres away from every point! (Melia 2000, p. 468)

In constructing the three-dimensional world we say things that—for our further purpose of talking about a non-Euclidean two-dimensional world—we’ll want to eventually take back. Of course, in this example, if we stopped mid-story we wouldn’t be saying anything false (as we would have in the first example) but we would be saying things—or saying things that implied other things—that we don’t want at the end of the story. For example, we would have said things that
implied that the distance between two lines was one length rather than another, and that there was a point that was equidistant to all the points on the surface. That’s the second example.

Melia’s examples, however,—for all their intuitive appeal—seem importantly unlike the case in which Joe takes back the implication that there are numbers. One difference can be seen by noticing that he says that taking back in general is target for suspicion. “Taking back things we have said before is often unhelpful and misleading, and is indeed somewhat weasely.” But what is weasely about the two examples he gives? Both are perfectly respectable. Rather, things become weasely in Joe’s case, when Joe denies the existence of numbers.

And here’s another, more important, difference: in both of Melia’s ordinary examples it is possible to express what we want to say the first time around. If we wished, we could tell our story of the world without having to take anything back. And Melia is aware of this: as far as the two examples go, “Intrinsic descriptions of the surface of a sphere exist; and one can say that every F save Harry also Gs.” Yet he doesn’t give us reason to think that this isn’t an important difference. Why is it that we have to take back in the philosophical cases but we have the option not to in the ordinary cases? He doesn’t say.55

54 Melia 2000, p. 468.

55 Well, actually he does say. Here is the extent of his “explanation” of those cases in which the concretist is forced into weaseling: “So why take back part of the picture which we earlier implied existed? Because sometimes we have to. Sometimes, we just cannot say what we want the first time round.” (Melia 2000, pp. 468–69)
The examples only support the plausibility of Joe’s practice of taking back in so far as they are similar to Joe’s case. But their dis-similarities might be seen as disqualifying them as support for Joe’s practice. We would like more reason to believe that the examples are relevant. They seem relevantly *different*.

So then, the connection between the two ordinary (and obviously rational) examples of taking back, and that of Joe’s case, is less than adequate. There is, however, another sort of example in which taking back occurs, says Melia—albeit the rationality of this sort is much more controversial. But it is also much more similar than the first two examples; in fact, it involves an explicit denial of numbers:

> Whilst almost all scientists will admit that they must quantify over numbers in order to formulate their scientific theories, almost all will go on to deny that there are such things as mathematical objects. (Melia 2000, p. 469)

Let’s suppose that Melia’s empirical claim that most scientists do not believe in mathematical objects is correct. Would this show the appropriateness of the Joe’s behavior? That will depend on what you think of these scientists’ practice. And it’s not clear that philosophers think too highly of it. In fact, Melia himself admits, “Most philosophers typically represent these scientists as engaging in double-think—denying by night what they believe by day.”

We’ll need, then, some reason to think that scientists are not

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56 “[Look] at the kind of things they say: ‘The force between two massive objects is *proportional* to the *product* of the masses *divided* by the square of the distance’; ‘There is a one-to-one differentiable *function* from the points of space-time onto *quadruples of real numbers’.” (Melia 2000, p. 469)
irrational or inconsistent in their weaseling. And so Melia goes on to plead the scientific weasels’ case:

[It] is surely uncharitable to regard so many scientists as hypocrites! Surely it is more charitable to think that we must have misinterpreted them...[How] can we have misinterpreted them? By thinking that any theorist who presents a theory of the world must do so by asserting a set of sentences, each one believed by the theorist. This is our mistake. (Melia 2000, p. 469)

I’m not sure that misinterpreted is the correct notion here. It seems that it’s not so much that we have misinterpreted scientists—we understand what they’re doing perfectly well. Rather Melia seems to want to claim we have misjudged their practice as inconsistent and irrational. But we haven’t been given any reason to think that we have misjudged them (or misinterpreted them). To be sure, if Melia’s thesis is correct—that it’s proper for the concretist to deny the implications of his assertions—then we would have reason to believe we have misjudged the scientists. But it’s the scientists who are being used to support the thesis in the first place.57

57Concretists might also appeal to a different but similar practice of scientists: scientific anti-realists who assert that there are unobservable entities in their everyday scientific practice without actually believing in such unobservables. Although Melia doesn’t try to do this, he does remind us that “the view that our theories are a mixture of fact and fiction was a popular one amongst pre-Quinean instrumentalists.” And of course there are many contemporary instrumentalists who take the same (or a relevantly similar) line. Again, such an appeal will depend on what you think of scientific anti-realism views. While we’re summoning the practices of nonphilosophers, we should point out that, on the other hand, abstractists routinely appeal to the practice of mathematicians to support their own belief in the existence of numbers. Putnam, for example, says, “the mathematician does not concern himself with the real nature of [mathematical] entities, which form his subject matter: he merely supposes that certain of them exist and that they obey certain postulates.” Emphasis added. Putnam 1956, p. 82. In all these cases, the practice or theory appealed to is as controversial as the one it’s being used to support. And it’s controversial in the
Let us summarize what we’ve seen so far in this chapter. Melia says that many of the beliefs we have about the concrete world are expressed by sentences that imply the existence of abstracta. That is, he accepts premise (1) of the OIAA. He also believes that we cannot reasonably give up these beliefs about the concrete world, and so grants premise (2) as well. Furthermore, he concedes premise (4), admitting that we are incapable of finding concretist-friendly sentences to express certain things that we wish to about the concrete world; quantification over abstract objects is indispensable. However, he claims that we need not believe in abstract objects because we need not believe *everything* a sentence implies in order to use it to tell our story about the concrete world. We can tell the story by taking back those implications we don’t believe. In other words, we can deny (3) and avoid the OIAA’s conclusion.

But the question remains. Is “taking back” a rational practice for concretists to engage in when trying to avoid commitment to abstract objects? We’ve seen, I think, that Melia’s only real, independent, support for the claim that weaseling is rational are his appeals to the “Harry” and “non-Euclidean” examples. And the success of these appeals depends on whether we think that these two cases are relevantly similar to the concretist case (that is, a case like Joe’s). But these cases were different from one another in two very conspicuous ways. The most important was that we could have expressed exactly what we wished in the “Harry” and “non-Euclidean” cases,
but not in Joe’s case. That is, we could express what the “taking
back” sentence does in a statement that doesn’t require us to take
back anything. And the indispensability of quantification over ob-
jects like numbers is the very reason (or at least a very big part
of the reason) that we should believe in abstract objects. At least
according to the OIAA. All this to say, Melia doesn’t support his
denial of (3) as well as we might like.

5.4.5 A Manner of Speaking

We said that to accept weaseling is to deny (3). But is it? Premise
(3) says that we shouldn’t ‘affirm’ something and knowingly re-
ject its consequences. ‘Affirm’ brings with it connotations of be-
lief and truth. If we affirm something, we believe that it’s true.
(Although Melia doesn’t speak of ‘affirming’ he frequently uses ‘as-
serting’. These, I take it, are synonyms.) Yet despite the fact that
Melia speaks as if we believe the abstracta-implying sentences (we
assert them, he says), there is also evidence that he thinks we don’t
believe them. And if we don’t, then in one sense we’re not affirming
or asserting them and therefore he’s not really denying (3).

Recall his comparison with ‘Everybody who Fs also Gs’. In
his example we don’t believe it. (Rather, we believe the conjunc-
tion of it with the qualification.) It may be then that Melia takes
our abstracta-implying sentences to be false. If so, then the OIAA
doesn’t apply to these sentences. The OIAA assumes that we be-
lieve the sentences, that we think they’re true. It doesn’t apply to
sentences we think are false. Does Melia really believe that these sentences are false? Let’s look at what he thinks about the truth-values of these sentences.

First remember that in his presentation of weaseling, Melia spoke in terms of *theories* when it came to the philosophy cases. For example:

So what should our attitude be towards T+ be? Clearly, we should keep using it, but we shouldn’t believe everything it entails. Some of the things T+ entails, such as the sentence ‘there are numbers’, simply aren’t true... T+ must be partly fictional and partly factual. (Melia 1995, p. 227)

His distinction between factual and fictional applies not to individual sentences but to collections of sentences. He says that some of the theory is factual and some of it is fictional. But what does this mean for the individual sentences of T+? Does it mean that there are some sentences which are factual (true) and others which are fictional (false)? Or does it mean that there are individual sentences that are themselves partly factual and partly fictional?

Consider the first option: that some of the sentences of the theory are false and the others are true. If some of the sentences of T+ are false, which ones? Is it, for example, the abstracta-implying sentences themselves or only some of their implications. Perhaps Melia

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58 And by ‘using it’ he means—among other things—*believing it*, as I’ll argue.

59 Although the practice of weaseling is supported by some sort of context principle it seems that Melia still believes that the individual sentences like (A) can have meaning in isolation from other sentences, and so plausibly, will have a truth value in isolation as well.
means that sentences like (A) and (F)—‘The average mum has 2.4 children’ and ‘Bridge $a$ is twice as long as bridge $b$’, respectively—are themselves just plain false (as opposed to, say, figurative: false manners of speaking that express something true). This interpretation might be gleaned from Melia’s “Harry” example. In the “Harry” example, the sentence “Everybody who $F$s also $G$s” is just plain false; it is not merely a manner of speaking which is used to express a truth. However, it is difficult to imagine how, for example, (F) could be just plain false while entering into a whole host of sound inferences in which it figured as a premise. Recall Joe qua building contractor. It is plausible that Joe would reason something like: If bridge $a$ is twice as long as bridge $b$ then I need to procure $z$ tons of steel; Bridge $a$ is twice as long as bridge $b$; So I need to procure $z$ tons of steel. How could Melia explain this valid inferences if (F) is just plain false? Or does he believe that this is an instance in which modus ponens is invalid. I doubt that this is his view.

But, then, are abstracta-implying sentences true. Is his attitude towards the original sentences that they are true but that we just don’t believe all their implications? This would be a difficult position to take seriously. But he does speak of true and false implications of the abstract-implying sentences. For example, one of the false implications of (A), he says, is that there is an average mother. One of its true implications is the infinite disjunction that there are either five mothers and twelve offspring, or there are ten mothers and twenty four offspring, or... So we should only believe the true
implications and reject those that are false. But if (A) is true then how could any of its implications be false? And so how could we rationally disbelieve any of its known implications? Again, it’s difficult to see how. And Melia doesn’t try to show us. Furthermore, if abstracta-implying sentences are true, what would the purpose of taking them back to begin with? I don’t think he believes that the abstracta-implying sentences are true.

But if he believes that they’re neither true nor false, what else is he left with? Well, recall that he said that there is “something right” about such sentences, that they get the concrete part of the world right, even though they are wrong about other things. They are wrong, for example, about average mums, average stars, and numbers. So, there is something right and something wrong about these sentences; there is something true and something false, something fictional and something factual. How might a sentence play both sides like this?

Well, the obvious way is that there is some sort of literal/real content distinction that is applied to these sentences (let’s ride roughshod over just how to characterize the distinction).60 Now if this is what Melia has in mind then the “something right” about (A) would be it’s real content. (A) is just a manner of speaking used to express this real content. Strictly speaking, (A) is false but expresses something true. Of course, this is all well-trodden territory in ontological

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60 Another way for there to be something right about a sentence, as van Inwagen reminded me, is for it to be an approximation. Strictly speaking, it is false but correct to utter in certain contexts. It doesn’t seem, however, that these abstracta-implying sentences are approximations of exact sentences.
commitment debates.

But even if there are similarities between (A) and sentences that use figurative devices, the way of the weasel doesn’t look like our typical practice of using figurative language. That is, Melia’s phenomena of taking back doesn’t seem to rely on figurative language in any obvious way.

In any case, it does seem that he views these sentences as false but alethically virtuous and therefore it may seem as if Melia is not denying (3): these sentences are in some sense manners of speaking and so we need not take their literal implications seriously. And this should appease the abstractist. But recall van Inwagen’s normative principle that gave rise to (3).

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\text{[If] one doesn’t believe that things of a certain sort exist, one shouldn’t say anything that demonstrably implies that things of that sort do exist. (Or, at any rate, one may say such things only if one is in a position to contend, and plausibly, that saying these things is a mere manner of speaking—that, however convenient it may be, it could, in principle, be dispensed with.) (van Inwagen 2004, p. 122)}
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We see that, according to van Inwagen (and therefore according to the OIAA), abstracta-implying sentences must not only be manners of speaking if we are to avoid commitment to abstracta; they must also be replaceable, at least in principle. But Melia has admitted that this last criterion cannot be met for the sentences we have in mind.

But now we arrive again at the problem of indispensability. For

\textsuperscript{61}For example, “I have butterflies in my stomach.”
those *ordinary* sentences for which there is a literal/real content distinction in play, we know what the real content is and we can express it with some sort of replacement sentence. And this is exactly what we cannot do in many of the philosophical cases. Indispensability was what separated Melia’s ordinary “Harry” and “non-Euclidean” examples from Joe’s case. Indispensability is now what separates ordinary figurative sentences from the “figurative” abstracta-implying ones.

Which part of the OIAA is Melia denying then? If he believed that the abstracta-implying sentences were just plain false—which he doesn’t, it seems—then he would be side-stepping the OIAA altogether since the OIAA assumes that we believe that the abstracta-implying sentences are true. (The problem with such a view, as we’ll see in Chapter 5, is motivating the claim that these sentences are false.) But by believing that these sentences are manners of speaking—which he does, it seems—he denies (3). Not because of his claim that these are manners of speaking; the OIAA would allow for this. Rather, it is because he denies that we need to be able to find replacements. We are shielded from such a requirement, according to Melia, because there is a plausible account (he says) of what we’re doing with these manners of speaking. As we’ve seen, however, Melia doesn’t support this latter claim very well.
5.4.6 Conclusion

But there’s “something right” about Melia’s view. In the next chapter I will look further at the possibility of denying (3). At least for some sentences. The view is this: taken at face value (perhaps “literally”), sentences like (A) are strictly speaking false. But they are used—or rather the “abstracta” they quantify over are used—as representational aids to talk about the world.

We have encountered the term ‘fictional’ in Melia’s presentation. Perhaps his view, although he does not call it such, is a kind of fictionalist account. Fictionalism is a popular view in the ontology of mathematical objects. The propositions of mathematics are false, taken at face value.\textsuperscript{62}

In the next and final chapter I will roughly sketch what may be a promising fictionalist account of mathematics. I will present the view in only enough detail to point out a few of the fundamental problems that will need to be addressed—but have not been—by fictionalists. I choose to focus on mathematical objects because I think that they are the most difficult objects for the concretist to avoid believing in (recall that it was mathematics that forced Quine into his “reluctant platonist” position).

\textsuperscript{62}See, for example, Field 1989, Balaguer 1996, and Balaguer 1998.
CHAPTER 6

CONCLUDING SPECULATIONS:
A PROPOSAL FOR FURTHER WORK

In the previous chapter we saw one of the more daring ways to avoid the conclusion of the OIAA. Melia denied that we need not be able to find a replacement for an abstracta-implying sentence (even if only in principle) in order to use it—even if we deny the sentence’s logical implication that there abstracta. Melia claimed that we can do this because we know that any sensible theory of the world humans can have will be mistaken about the existence of abstract objects. Namely, such theory will say that they exist. He went on to explain how we can consistently use our mistaken theory of the world by appealing to the practice of “taking back” or “weaseling.” One ordinary example of taking back was, “Everyone who F’s also G’s. Except Harry; he’s the one exception.” By saying, “Except Harry; he’s the one exception” we take back the assertion that everyone who F’s also G’s. Before the qualification, we utter something false; but after it—that is, in conjunction with it—we say something true.

We also saw in the last chapter that Melia doesn’t give much direct support for the connection between ordinary examples of tak-
ing back and those cases in which the concretist denies the logical implications of abstracta-implying sentences. It just wasn’t clear whether the concretist has a similar license to use these sentences. In other words, there is a palpable difference between ordinary cases of weaseling and that of the philosopher who denies, for example, the ontological implications of mathematics. Recall that, according to Melia, the individual abstracta-implying sentences are strictly speaking false (and in this sense his view is a version of fictionalism) but that there is “something right” about them; they are in some sense alethically virtuous.

But here was one of our concerns: Melia provides no explanation of how these false sentences could have such virtues. The closest ordinary cases we could find (Melia doesn’t offer this sort of evidence) are those which include figurative language, taking ‘figurative’ very broadly. In such ordinary cases, something that is “literally” false is legitimately used to express something true. Our biggest complaint was that there is one rather salient discrepancy between the two sorts of examples: in ordinary cases the figurative devices were dispensable; we could express what we wish to without them. In philosophical cases, on the other hand, the figurative-type devices (if this is what they are) are indispensable. The truths about the concrete world—truths which the concretist wishes to assert—are inexpressible in a concretist-friendly language. And of course, this is just to say that quantification over abstracta is indispensable. Given Melia’s relative silence on this difference, we concluded that he didn’t give
enough support for his claim that the philosophical cases were sufficiently similar to the ordinary cases. That is, he didn’t do enough to support his denial of premise (3).

It’s important to reiterate just how indispensability was a concern to us in Chapter 4. It was not so much the mere fact of indispensability that was the problem; rather it was that Melia didn’t attempt to give any explanation of why quantification over abstracta is indispensable, or at least a reason why it shouldn’t be so bothersome.

This is one of the topics of the present chapter. More generally, in this chapter I will suggest that Melia may be on the right track. Perhaps we should deny (3); and perhaps we can do so by way of a type of fictionalism. But I doubt that, even if we can do this, we can deny (3) for all kinds of abstracta-implying sentences. Perhaps, however, for the others we can deny (4). In any event, there are a number of problems that fictionalism faces, problems that must be adequately addressed but have not been. And I should also add that, in my discussion, I will focus primarily on the sentences of mathematics.¹ I will, however, suggest that nonmathematical abstracta-implying sentences might be handled similarly. According to this version of fictionalism—which might be called representationalism—literally false sentences can be used as representational aids to express truths about (that is, represent) the concrete world, truths that are often inexpressible without such representational aids.

So then, I will sketch a “representationalist” view of mathe-

¹Recall that in Chapter 4 I said that mathematical objects seem to be the most difficult ones for concretists to avoid being committed to.
ics. Due to the speculative nature of this chapter—it’s little more than a proposal for further research—my presentation will have an impressionist flavor. Nevertheless, I will give enough substance to show that there are some serious difficulties with the position. In any event, once I have sketched the view, my main goal will be to briefly discuss four difficulties facing this view, important difficulties that have not been adequately addressed:

i. the applicability of mathematics,

ii. the indispensability of mathematical objects as representational aids,

iii. the phenomenology associated with our mathematical assertions, and

iv. the relationship that this “mathematical fictionalism” has to the ontology of fictional characters.

With respect to the last issue, I think fictionalists have ignored the difficulty of avoiding commitment to the existence of fictional characters. I suggest here how they might face it, without becoming abstractists. And after discussing (i)–(iv), I also suggest how representationalism might be applied to other kinds of abstracta-implying sentences.²

6.1 The View: Mathematical Fictionalism

The way in which fictionalists typically deny the conclusion of the OIAA is by denying the truth of premise (3), it seems. They say that

²I will typically use ‘representationalism’ and ‘fictionalism’ interchangeably, using the former when I want to remind the reader that false abstracta-implying sentences use representational aids to say something true about the world.
we need not believe in certain implications of abstracta-implying sentences—even if we cannot dispense with these sentences. We can legitimately do this, they say, because these sentences are false, strictly speaking, and the implications we can legitimately deny are those from their strict and literal meaning. And though these sentences aren’t true, they use representational aids used to express truths about the concrete world.

There’s an interesting claim Stephen Yablo makes that, if true, might add a certain amount of support to fictionalism: “All abstract objects yet discovered have ‘turned out’ to come in handy as representational aids.” He goes on to ask,

How is this interesting coincidence to be explained? Why have numbers, sets, properties, and so on all turned out to be liable to the same sort of use? This should remind us...of Wittgenstein’s fable in which we first invent clocks, and only later realize that they could be used to tell time. It is no big surprise if things with representing as their reason for “being” show a consistent aptitude for the task. (Yablo 2001, p. 89–90)

So this is just one of the facts that representationalism might attractively explain. But that said, let us now turn to specifically mathematical sentences, to mathematical fictionalism.

According to mathematical fictionalism, mathematical sentences like ‘2+2=4’ are very much like ‘Oliver Twist lived in London’. In both cases, says the fictionalist, these sentences are false, strictly speaking. But as Hartry Field says, “A fictionalist needn’t (and shouldn’t) deny that there is some sense in which ‘2+2=4’ is true.”

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3Field 1989, p. 3.
This brings to mind Melia’s way of putting things: there is “something right” about ‘2+2=4’. But in what sense is it true; what is the something right about it? Field continues,

the fictionalist can say that the sense in which ‘2+2=4’ is true is pretty much the same as the sense in which ‘Oliver Twist lived in London’ is true: the latter is true only in the sense that it is true according to a certain well-known story, and the former is true only in the sense that it is true according to standard mathematics. (Field 1989, p. 3)

It seems that a sentential operator can be applied to various mathematical sentences, ‘According to the story of standard mathematics’. This comparison between ordinary fiction and mathematical fiction is the main idea underlying fictionalism. And on its face, it seems plausible. However, most fictionalists have not pressed the comparison far enough.⁴

Notice something interesting. Although, fictionalists haven’t suggested this, according to mathematical fictionalism there actually seems to be a replacement sentence for ‘2+2=4’; namely, ‘According to standard mathematics 2+2=4’. If this is the case (and I think it is), then for many abstracta-implying mathematical statements there are replacement sentences that do not imply the existence of

⁴One reason they haven’t pressed it very far is that ‘fiction’ as applied to mathematics is sometimes taken to mean ‘ideal’. For example, Jody Azzouni says, “Many-body problems (both in the classical case and in Quantum Field Theory) are tough to handle when the bodies in question are strongly interacting with each other, and there are enough of them. A widely used solution for this sort of problem is to replace (in our description of the phenomena these bodies are responsible for) terms referring to the actual strongly interacting bodies with terms ‘referring to’ fictional bodies.” (Azzouni 1997, p. 195) But as we see, Field—the quintessential fictionalist—did not use ‘fiction’ this way.
mathematical objects. Or they don’t imply the existence of numbers any more than ‘Oliver Twist lived in London’ implies that Oliver Twist existed. If so, then we can deny the conclusion of the OIAA by denying premise (4). Recall that premise (4) said,

4. Of those (very many) beliefs that we cannot give up, neither can we plausibly argue that they can be expressed in ways that do not imply the objects in question. In other words, we cannot (even if only in principle) find adequate replacement sentences that do not imply putatively abstract objects. Quantification over numbers, properties, sets, etc. is indispensable.

Mathematical fictionalism, then, can be seen as allowing the concretist to use replacement sentences that also quantify over numbers. But the OIAA ignores the possibility of finding an adequate replacement that retains such quantification. It assumes that any sentence that quantifies over x’s implies that x’s exist. Yet if mathematical fictionalism is true then those mathematical sentences implying mathematical objects really only imply that they exist “in the story” and not “outside” it. Premise (4) does not take into account any “in the story”/“outside the story” distinction.

As I said, most fictionalists can be understood as denying premise (3) of the OIAA; to support the claim that we needn’t believe in the implications of ‘2+2=4’ or ‘3 is prime’. But now we see that it might be better to construe them as denying (4) instead, given (4)’s loophole. But couldn’t we close this loophole by paring down

\[ \text{I should register my belief that ‘2+2=4’ may not need this sort of treatment to avoid committing us to numbers. ‘2+2=4’, it seems to me, may really be shorthand for ‘2x’s+2x’s=4x’s’ and this latter sentence might only commit us to x’s, that is to things generally. If so, ‘2+2=4’ would commit us to the existence of at least one thing.} \]
(4) to say merely that quantification over numbers, properties, sets, etc. is indispensable? The fictionalist would then have to accept (4), since quantification over abstracta is indispensable. But closing this loophole doesn’t help the abstractist because the fictionalist—at least the kind that says we can attach the sentential operator ‘according to standard mathematics’—would then have no qualms about (4). In fact, the OIAA would then be invalid; and this is not surprising because by modifying it in this way, we misrepresent how the indispensability of quantification is being used in the OIAA. According to the abstractist, quantification is indispensable and any quantification over abstracta implies that they exist (outside the story). Premise (4) is really two premises.

Of course, in response to the fictionalist’s rejection of (4), the OIAA’ist may concede that (4) cannot account for an “in the story” / “outside the story” distinction but then claim that it can’t because there is no such distinction—at least in mathematics. Even according to standard mathematics, he will say, mathematical objects really do exist, period. And so the replacement we had in mind wouldn’t let the concretist off the hook.

But of course, this goes right to the heart of mathematical fictionalism’s primary claim; namely, that standard mathematics is no more true than Oliver Twist. Standard mathematics is a fiction, a story. We’ve made it up (even if not out of whole cloth). Sentences

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6This qualification raises an important issue; one that I won’t be able to adequately discuss here. Briefly, however, the problem is that there seems to be something else that is significantly different about mathematics. The mathematical story seems to be terribly constrained; it couldn’t have been a different story. Now, it certainly seems that some simple arithmetic couldn’t have been

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like ‘2+2=4’ and ‘3 is prime’ do not imply the existence of objects existing outside the story. But they do imply them in the story.

Before looking some of the more serious problems that the mathematical fictionalist faces, notice that despite the claim that mathematical sentences are false, the fictionalist can still explain how it is correct to say ‘3 is prime’ and incorrect to say ‘4 is prime’. According to the story of standard mathematics it is false that 4 is prime. Similarly, it is incorrect to say ‘Oliver lived in Peoria’. According to Oliver Twist he lived in London.

6.2 The Applicability of Mathematics

One of the fictionalist’s first jobs, then, is to motivate the claim that mathematics is false. Sometimes this is done by pointing to ordinary ways in which we use false sentences to express something true about the world. We’ve seen that figurative language is the likely way to go. But in pointing to fiction like Oliver Twist we aren’t pointing to a figurative-like phenomena, it seems. ‘Oliver Twist lived in London’ is not a sentence that is used to express something true about the world at all. It seems that the applicability of mathematics—its ability to

\[ \text{different but standard mathematics certainly could have (for example, we could have different axioms). But assume that it couldn’t have been significantly different. We might explain the “terrible constraints” on the story as follows: Mathematics is a representational aid to describe the world. It is used to help us represent or describe—to ourselves and to one another—the world. And in order to represent the world correctly it must “answer” to the world. That is, the mathematical story is not constrained by a realm of mathematical objects but by the concrete world that it was constructed to describe. The “necessity” of ‘2+2=4’ is really found in the fact that we could never add, say, two apples to two apples and get more or less than four apples. It is in this sense that we didn’t make it up out of whole cloth.} \]
be used to correctly describe the world—is an obvious difference between fiction and mathematics. How might a fictionalist explain applicability without distancing mathematics so far from ordinary fiction as to make the term ‘fictionalism’ a misnomer?

Well, there seem to be important ways in which fiction does express truths about the world. Allegories seem to be one particularly salient example. However, this particular similarity between math and fiction will require more attention; attention that we cannot give it here. And although the general similarity between math and fiction is important for the mathematical fictionalist to support, presently I am only concerned with the reconciliation of applicability with the supposed falsehood of mathematics.

Of course, underlying this talk of applicability is the distinction between applied and pure mathematics. This distinction raises yet more interesting questions that we cannot now address. But the distinction itself is intuitive enough. Anthony Peressini says,

There is an obvious and natural distinction between mathematical theories and mathematical scientific theories. A mathematical theory is a theory whose (apparent) subject matter is some sort of mathematical objects: for example, theory of functions of a real variable (real analysis), theory of functions of a complex variable (complex analysis), function theory (functional analysis), manifold

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Mark Balaguer gives an example of how a fictional novel can express truths about the world. “An historical description of the years surrounding the Russian revolution, for instance, could very easily use talk of the novel Animal Farm as a theoretical apparatus, or heuristic device. But the teacher who enlightens a pupil by claiming that Stalin was like the pig Napoleon does not commit to the existence of Napoleon; the talk of Napoleon is a heuristic device; that is, the historical content of the teacher’s description can be true even if there is no Napoleon.” (Balaguer 1996, p. 306)
theory (tensor analysis), number theory, measure theory, operator theory, spectral theory, group theory, ring theory, field theory, Galois theory, model theory, set theory, and probability theory...On the other hand there are scientific theories which, to varying degrees make use of these pure mathematical theories, i.e., mathematical (or mathematized) scientific theories. Prominent examples of mathematical scientific theories are found in quantum mechanics, population genetics, and general relativity.\(^8\)

In any event, we have thus far failed to make this important distinction.\(^9\) But my version of mathematical fictionalism relies heavily on this distinction. The mathematical sentences we used above—‘2+2=4’ and ‘3 is prime’—obviously fall under ‘pure mathematics’. They describe only the story, in a fashion similar to ‘Oliver Twist lived in London’. It seems then that with respect to pure mathematics we are denying (4). For pure mathematics we can attach a ‘according to the story’ prefix and therefore we can “find adequate replacement sentences that do not imply putatively abstract objects.”

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\(^8\)Peressini 1997, p. 211–12. Peressini goes on to explain that “the physical application requires empirical bridge principles to underwrite the physical interpretation [of mathematized scientific statements]. These principles are what distinguish pure mathematics from mathematized physical theory and enable claims about the physical world to be deduced from the latter.” (Peressini 1997, p. 214)

\(^9\)Field’s well-known fictionalism, of course, applies only to pure mathematics. All that is required for pure mathematics, he says, is conservativeness, not truth. As far as the applications of mathematics go, these can be “nominalized.” None of the applications of mathematics are indispensable. It seems, then, that Field doesn’t have the burden of explaining how mathematics is applicable. But this is merely apparent. There is still the fact that that mathematics is applicable even if it is dispensable to applications. Of course, his claim that it is dispensable is quite controversial and I assume here that quantification over abstracta is indispensable for describing the concrete world. Whatever the case may be, Field is still left with the mystery of applicability on his hands.
But back to applicability. As far as applied mathematics is concerned, how does mathematics, if it is false, express truths about the concrete world? How can it be successfully applied to the world? Applicability is one of the phenomena that stands in between the fictionalist and his claim that math is false. In other words, it may be that the best explanation of applicability is the truth of mathematics.10

But perhaps not. For one thing, the fictionalist can at this point emphasize the similarities between mathematics and figurative language. When it comes to applied mathematics this might have an advantage over trying to compare mathematics to fiction. Figurative language is noncontentiously used to describe the world. And strictly speaking it is false.

This comparison is not new, even if uncommon. Stephen Yablo, for example (borrowing from Ken Walton’s notion of ‘making as-if’) says,

A certain kind of make-believe game, Walton says, can be “useful for articulating, remembering, and communicating facts”11 about aspects of the game-independent world. He might have added that make-believe games can make it easier to reason about such facts, to systematize them, to visualize them, to spot connections with other facts, and to evaluate potential lines of research. That similar virtues have been claimed for metaphors is no accident, if metaphors are themselves moves in world-oriented pretend games. And this is what Walton maintains...The game is played not for its own sake but to

10 Yablo unpublished, p. 10.

make clear which game-independent properties are being attributed. (Yablo unpublished, p. 21)

When it comes to applied mathematics numbers are creatures of existential metaphor. They are part of a realm that we play along with because the pretense affords a desirable—sometimes irreplaceable—mode of access to certain real-world conditions...Much as we make as if, e.g., people have associated with them stores 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. (Yablo unpublished, pp. 21–22)

So if the fictionalist can motivate the claim that mathematics is relevantly similar to figurative language (Yablo speaks here specifically of metaphor but in other papers calls his view ‘figuralism’) then perhaps applicability will not be entirely mysterious.

Often accompanying the presentations of similarities between abstracta-implying sentences and figurative language is the claim that figurative devices are much more prevalent than we realize.\textsuperscript{12} In fact, it is sometimes claimed that figurative representational use of language is the norm and that literal language is the exception.\textsuperscript{13}

I don’t know whether this latter claim is true, but I’m convinced

\textsuperscript{12}See for example, Lakoff and Johnson 1980 and Lakoff and Johnson 1999.

\textsuperscript{13}Stephen Yablo quotes Quine to defend, if not the fact, at least the possibility: “[As] Quine says, ‘Cognitive discourse at its most dryly literal is largely a refinement...It is an open space in the tropical jungle, created by clearing tropes away’.” (Yablo 2001, p. 85)
that we use figurative-type language more often than many of us realize.\footnote{Recall that in Chapter 4 Melia uses the phenomenon of taking back to explain how we can legitimately use abstracta-implying sentences. He doesn’t play the figurative-language card, even if that was the best we could do to explain how he could believe that there is something right about abstracta-implying sentences.}

In any event, in the case of applied mathematics it may be better to think of the fictionalist as denying (3) rather than (4). Applied mathematical sentences are strictly false; they are manners of speaking used to express truths about the world. That in itself would be acceptable to the OIAA’ist, but the real problem—we saw this in Melia’s case—is that we cannot dispense with these manners of speaking. We cannot find replacements, even in principle. Quantification over numbers is, again, indispensable. And for applied sentences we are talking about objects outside the story. Not numbers, to be sure. These are only representational aids. But they are indispensable aids. We’ll return to indispensability below.

In addition to (or besides) pointing out the similarities between mathematics and figurative language, another way for the fictionalist to tackle applicability is to argue that applicability is just as much a problem for abstractists as it is for concretist. That is, the fictionalist may be able to argue that truth (at least \textit{mere} truth) cannot account for applicability. Yablo again:

\begin{quote}
To suppose that truth alone should make for applicability would be like supposing that randomly chosen high quality products should improve the operation of random machines. This seems to be what the Dormouse believed
\end{quote}
in Alice and Wonderland; asked what had possessed him to drip butter on the Mad Hatter’s watch, he says, “but it was the best butter.” (Yablo unpublished, p. 4)

Showing that applicability is a problem for the abstractist might be done by first noting that most abstractists believe that mathematical objects are not causally related to the concrete world.15 There is no causal interaction between numbers and the concrete objects they are used to describe. It seems then that the applicability of mathematics cannot be explained by the mere existence of numbers and other mathematical objects. Both the abstractist and concretist have to show how mathematics is relevant to the concrete world.16 And the mystery of applicability—the “unreasonable effectiveness of mathematics”—is not a new problem, even for abstractists.17

If there is no causal relation between physical and mathematical objects then how might mathematics be relevant? Looking at how mathematics is actually used may give us some clue. It seems that the fundamental use of mathematical objects is—this should come as no shock—as representational aids. Mark Balaguer says this:

> All mathematics ever does in empirical science is provide theoretical apparatuses (or, in other words, conceptual frameworks) in which to make assertions about the physical world. Another way of saying this is that mathematics is relevant not to the operation of the physi-

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15J. S. Mill and, more recently, Philip Kitcher and Penelope Maddy don’t deny the causality of mathematical objects. But they are not abstractists; they believe that mathematical objects are concrete physical objects.


17See Wigner’s classic essay, Wigner 1960. See also Steiner 1989 for some quotations by physicists regarding their amazement.
cal world, but only to *our understanding* of the physical world. Physical theories *never* make claims of the form: ‘physical phenomenon X occurs *because* the mathematical realm has nature Y’; rather, they make claims of the form: ‘the behavior (or state) of physical system S can be understood in terms of the mathematical structure M by...’ (Balaguer 1996, p. 298)

So then, according to him, “mathematical objects play a merely *non-causal* and *heuristic* role in” physical science.\(^\text{18}\)

Is the supposed truth of mathematics necessary to explain the use of numbers *as representational aids* (or, at least, is its supposed truth a better explanation than any a fictionalist can give)? It’s not clear how such an explanation would go. Yablo says that representational advantages

\[\text{don’t appear to depend on the X’s really existing...The}\]
\[\text{cosmologist need not believe in the average star to derive representational advantage from it...The psychiatrist need not believe in libido or ego strength to derive representational advantage from them. Why should the physicist have to believe in numbers to access new contents by couching her theory in numerical terms? (Yablo unpublished, p. 14)}\]

He goes on to ask (and answer), “The question is whether the functioning in this way as a representational aid is a privilege reserved to existing things. The answer appears to be that it isn’t.”\(^\text{19}\) If there turned out to be no mathematical objects, would mathematics change? Would science? It doesn’t seem that they would. How important is the existence of these objects for the explanation of


\(^{19}\)Yablo unpublished, p. 15.
applicability? In other words, how important is the truth of mathematics in this regard?

Of course, applicability is important for the fictionalist to explain. But it looks like applicability is a problem for the abstractist also. Whether the abstractist can show that the truth of mathematics gives him a leg up in such an explanation remains to be seen.

6.3 The Indispensability of Mathematics

Some philosophers think that applicability is the only important phenomena which needs explaining (by either side). For example, Balaguer says that for the fictionalist,

all that’s needed is an account of applicability. The argument against fictionalism is that it leaves mysterious the fact that mathematical theory is relevant to physical theory. To eliminate this mystery, it would be sufficient to account for the mere applicability of mathematics.20

But this seems wrong. To be sure, one argument against fictionalism is that it seems to leave applicability unexplained. But indispensability can also be summoned to undermine the fictionalist’s attempt to show that mathematical sentences are false.21 We encountered just such a problem in Chapter 4 (and reviewed it in the introduction to this chapter). One of our complaints about Melia’s

20Balaguer 1996, p. 296. Yablo says that once applicability is explained, indispensability is a “red herring.” (Yablo unpublished, p. 11)

21I should point out that we’re primarily concerned with the indispensability of quantification over mathematical objects in applied mathematics. It should be no surprise why it’s indispensable in pure mathematics: the story is about these objects. The point of the story is to say things about them. Would we be puzzled by the fact that Lord of the Rings quantifies over hobbits?
claim that abstracta-implying sentences are literally false (but express something true) was that in ordinary cases of weaseling we could find alternative, nonweasely ways of expressing what we wish to say—that is, without taking anything back. In the philosophical cases, we knew of no way to express—even in principle—the sentence’s “real” content. Perhaps, the abstractist might say, we can’t express the “real” content because there is no “literal/real” content distinction for these sentences. The real content just is the literal content and there is nothing further that the sentence is expressing. It’s either true or just plain false. And neither of these is what the fictionalists wants. He wants false-but-alethically-virtuous.

But recall (yet again) how indispensability was used in Chapter 4. Indispensability drove a wedge between the everyday examples and the philosophical ones. That is, the most obvious way for indispensability to be used against the fictionalist is to show that the everyday examples are relevantly unlike the philosophical ones. But in response, the fictionalist might try to retain this distance between the two kinds of examples. Perhaps the everyday examples are merely suggestive—they only roughly illustrate the kinds of phenomena we encounter in the philosophy room, but they do no more than that. The abstractist is right, the fictionalist could say, in pointing out the important difference located in the representational aids’ indispensability. Mathematics may be unique, sui generis, even though there are real similarities between it and those cases in which the devices can be dispensed with.
Once the fictionalist clarifies the (more humble) use of the every-day examples, he may be able to ask the abstractist for reasons not to believe that indispensability is just an interesting part of our linguistic situation. To be sure, it would be nice to know why quantification over mathematical objects is indispensable. But this sort of ignorance may only count against the fictionalist if language (and thought) should be better explained than ontology. To put it differently, it’s difficult to see why one shouldn’t to locate one’s mystery on the side of language (and thought) rather than on the side of what there is. Perhaps this is all the fictionalist can say about indispensability. But even so, it seems to be an attractive—and prudent—position. Our linguistic and cognitive capacities are notoriously difficult to explain.\footnote{Recall, for example, Chomsky’s “poverty of the stimulus” argument.} In any case, we have approached the subject of psychology, and so come to another important problem that the fictionalist encounters in claiming that mathematical sentences are only true according to standard mathematics.

6.4 Phenomenology

By ‘phenomenology’ I mean what it “feels” like when, for example, we use certain sentences; what it “seems” like to us. Much more I cannot say. This sort of psychological introspection—at least used to support a philosophical view—is simultaneously dicey and important. It’s \textit{important} because we have no choice but to look “within”
when interpreting our language.\textsuperscript{23} It’s \textit{dicey} because it is extremely difficult to read one’s own mind, much less another’s.\textsuperscript{24} This difficulty can be seen in grammar, for example. It is one thing for a competent language-user to effortlessly construct grammatically correct sentences; it’s quite another for such a user to articulate the grammatical rules he \textit{seems} to be using.\textsuperscript{25} Something similar, I think, is probably true of semantics. Just what, exactly, do we mean by our sentences? Anyone with children has experienced the difficulty of explaining the meaning of \textit{very simple} words, phrases, or sentences. With those brief and cryptic remarks, let’s look at some of the relevant phenomenology associated with mathematical fictionalism.

First, I claimed that it makes sense to interpret ‘3 is prime’ as ‘According to standard mathematics (or the story of mathematics) 3 is prime’. But it might be objected that it certainly doesn’t feel like we’re qualifying ‘3 is prime’ with an implicit ‘according to the story...’. To put it another way, it seems implausible to claim that ordinary folks are “really” mathematical fictionalists.

But the mathematical fictionalist should not be seen—at least I should not be seen—as claiming that this is what people “really

\textsuperscript{23}This is a good place to mention—although I’m not sure it’s all that relevant—that I believe there can be a private language. In fact, my view is that each of us only has his or her own private language. Needless to say, this is rather unorthodox among philosophers and here I can only provocatively voice my heresy.

\textsuperscript{24}Nichols and Stich 2003.

\textsuperscript{25}He may not be using \textit{any} rules, of course.
mean” when they say that 3 is prime. For one thing, I have no clear idea what other people really mean. I do, however, have some sense of how it feels when I say that ‘3 is prime’ or ‘There are an infinite number of primes’. Initially, when first encountering the subject of mathematical ontology, I felt like I was saying something like ‘According to mathematics...’. Having since performed further self-diagnosis, the most I can clarify this is that I mean something like ‘According to the story of mathematics’. It seems to me that mathematics really is something we have created and not discovered, very much like ordinary fiction. (I should also add that most nonphilosophers to whom that I have spoken about this have not found the according-to-the-story-of-mathematics explanation very surprising. My intuition might not be entirely unique.)

However, I think it can be said with a straight face that there is a different sort of experience which is common, even among philosophers: most of us are initially surprised by the claim that we’re committed to numbers by our ordinary use of mathematics (similarly for all abstracta, I think). Numbers and other abstracta have a curious certain sense of “translucency,” as Yablo calls it. When we say ‘The number of people in India is increasing more rapidly than in China’ we don’t even “register” the reference to numbers. Yablo says, “This makes sense if numbers are representational aids.”26 (Furthermore,
assume that the number of Indians is currently a billion. We would think it strange to ask ‘So, is a billion increasing?’ And as I said, this translucency experience probably applies to most, if not all, abstracta.

In any event, the phenomenology associated with our abstracta-implying sentences is tremendously complex, as it is with most of our language. There is much here that needs investigation.

6.5 Fiction

As I said, despite the view’s name, very few mathematical fictionalists have kept their eye on the philosophy of fiction. I don’t mean simply the ontology of fiction, but also fiction’s language, practice, and phenomenology. Of course, the single most pressing issue is the ontology of fictional characters. Again, it’s one thing to say that mathematics is relevantly similar to fiction; but if we’re forced to believe in the existence of fictional characters then the motivation for mathematical fictionalism may be significantly reduced.

I should say, however, that even if we are ultimately committed to the existence of fictional characters, and so similarly to mathematical objects, mathematical fictionalism is still attractive. That is, mathematical fictionalism is plausible in its own right as an ex-

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27 Yablo 2000, p. 298.

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 inward detachment.” (Burgess and Rosen 1997, p. 10) The fact that we “have in mind no subtle and complex attitude combining outward feigning with inward detachment” highlights the transparency of numbers when used as representational aids.
planation of mathematical practice. I mentioned my own phenomenological experience: it seems that I really am implicitly qualifying ‘3 is prime’ with ‘According to the story of standard mathematics’. I didn’t cook up this intuition in order to deal with the abstractist’s argument. Rather, part of my initial resistance to the conclusion that we are committed to mathematical objects originated from the phenomenology. But of course, that mathematical fictionalism really gets the practical story right is a controversial claim.

Now then, I’m inclined to think that we are committed to the existence of fictional characters. To be sure, I don’t think that sentences like the following commit us to the existence of fictional characters.

(A) She was a fat old woman, this Mrs. Gamp, with a husky voice and a moist eye, which she had a remarkable power of turning up, and only showing the white of it. (*Martin Chuzzlewit*, Chapter 19)\(^{28}\)

(B) Mrs. Gamp is fond of gin.

Such sentences, which Stuart Brock calls ‘fictional’ sentences, are about the content of a story.\(^{29}\) They are akin to pure mathematical sentences. This is not entirely uncontroversial, but even van Inwagen says that

> there is a certain sense in which the fact that novelists do things like writing [the above Mrs. Gamp sentence] is not directly relevant to questions about the ontology

\(^{28}\)See van Inwagen 2001a, p. 41.

\(^{29}\)An interesting question is What is a story? Do stories exist and if so what are they like?
of fictional entities. There is no point in debating what sort of thing Dickens was writing about when he wrote [it] or debating what sort of fact or proposition he was asserting, since he was not writing about anything and was asserting nothing. (van Inwagen 2001a, p. 41–42)

Another interesting question is Just what was Dickens doing? Anyway, according to the fictionalism I have in mind, the Mrs. Gamp sentences have the ‘According to the story...’ qualifier prefixed to them.

Let us assume that “fictional” sentences do not commit us to fictional entities (of which fictional characters are one kind). Sentences like

(C) Mrs. Gamp...is the most fully developed of the masculine anti-women visible in all Dickens’s novels,\(^{30}\)

however, are not amenable to the ‘According to the story...’ explanation. Or so it seems. Such sentences—which Brock calls ‘critical’ statements—don’t seem to be about the contents of a story. Nor does there appear to be any good way to paraphrase such sentences, or so I shall assume.

According to Brock, however, it only seems that these statements are not about the contents of stories. To be sure, they are not about the typical stories in which the names appear, but we have already used the term ‘story’ loosely here anyhow. Brock thinks that we can attach a similar sort of sentential operator to critical sentences, namely, ‘According to the realist’s hypothesis’. So, using ‘story’

loosely, we can say, for example, ‘According to the realist’s story, Scarlett O’Hara is a fictional character’.\footnote{Brock 2002, p. 9.}

This is certainly along fictionalists lines. Of course Brock couldn’t say that he’s explaining our practice surrounding critical discourse. It’s implausible that the prefix ‘According to the realist’s story’ explains anyone’s phenomenological state of affairs. But maybe that’s not important, even if it would be nice if it did. This would be an interesting line to follow and it would allow the mathematical fictionalist to say that he’s taking the “fictionalist” part seriously.

Another way to take the “fictionalist” part of mathematical fictionalism seriously—I mentioned this earlier—is to admit that numbers exist in the same way that fictional characters do. Most mathematical fictionalists would obviously be very reluctant to do this, but I don’t think it’s wholly unattractive, as I said. Now, the distinction between fictional and critical statements is not as clear in the case of mathematics, but it’s there.\footnote{And it’s different than the pure/applied distinction.} For example, we might say, ‘Despite its strangeness, $i$ has been useful in certain physical applications’. This is not speaking of the contents of the story of mathematics but rather of a mathematical “character,” namely the imaginary number $i$.

Perhaps we should admit mathematical characters then. But this would be to give up concretism, wouldn’t it? Not necessarily. In this case, we could say—I would say—that such characters are
mental entities; ideas or concepts, perhaps. In other words, we might be able to put the ‘i’ sentence this way, ‘Despite its strangeness, the concept (or notion) of i has been useful in certain physical applications’.

This view of mathematical “characters” may have its own intrinsic charm. I think many of us naturally tend to think of mathematics as a mental construction. A little bit of empirical support: Whenever I have asked ordinary folks—usually either undergraduates or practicing scientists—what they think numbers are, given that they go around saying things like ‘There are three numbers between one and five’, their typical response is that numbers are our own mental creations that help us understand and talk about the physical world. In fact, this is one of the primary intuitions that supports the view of mathematics as a fiction to begin with—‘fiction’ often just means ‘mind-created’.

But can this view which I’ve applied to mathematical characters—that they are mental objects—be applied to fictional characters? That is, could this lead to a plausible ontology of fiction? I tend to think so, but at this point it’s difficult to tell. The fact that it can be applied to mathematics—if it is fact—might be reason to believe that fictional characters are ideas or concepts. In any event, the connection between “ordinary” fiction and mathematical “fiction” is an interesting and important one. Much of the plausibility

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33The view of mental entities I have in mind, is that we never strictly speaking share the same idea. Concepts, ideas, or whatever, are concrete particulars that exist only in minds.
of mathematical fictionalism—my version of it anyway—will depend on it.

6.6 Outside the Mathematical Realm

I’ve briefly sketched a version of mathematical fictionalism or mathematical representationalism. I’ve also discussed four basic areas that—given further research—may yield significant dividends for the ontology of mathematical entities (and perhaps for ordinary fiction as well). But we began the dissertation with an eye on all abstracta, not just those associated with a particular subject matter or another. The OIAA extends to all abstracta-implying sentences.

Can other kinds of sentences be thought of as using abstracta as representational aids? Maybe. Maybe sentences like ‘According to Greek mythology, Pegasus is a winged horse’ and ‘According to the well known Christmas story, Santa Claus lives at the North Pole’ provide some hope.34 We might even be able to say, ‘According to the property story, Spiders share some of the same anatomical properties of insects’. That is, if we take ‘story’ broadly enough (but not so broadly that it loses its point or plausibility—where that line is I don’t know) we might find that we have very many representational “stories” that help us to talk about the concrete world.35

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34 Remember the riddle of nonbeing from Chapter 2. ‘Pegasus does not exist’ could be replaced perhaps with something like ‘According to Greek mythology Pegasus exists, but there really is no such thing as Pegasus.’

35 In the extreme case where all abstracta-implying sentences had ‘According to the x story’ applied to it, we would always deny premise (4) of the OIAA and not premise (3).
But even if we cannot append ‘according to the x story’s to all the abstracta-implying sentences we’d like, we might, as we saw, be able to extend the claim that many abstracta-implying sentences are similar to figurative ones. Yablo, for example, has what I would call a representationalist view—one that he calls ‘figuralism’. Something like this might work for many of the sentences that fictionalism cannot handle. In any event, it seems probable to me that there will not be a single, one-size-fits-all technique that can handle all the types of abstracta-implying sentences. But why would anyone expect that?

6.7 Conclusion

We have seen that Quine’s emphasis on how we should answer the ontological question went a long way in clearing the bramble that surrounded ontological discussions. He provided much needed organization and rigor. And even if you disagree with Quinean metaontology, you can still appreciate the clarificatory nature of the subsequent debates that this meta-ontology engendered.

But despite the enormous quantity of ink and paper that has been used in these debates, there is still much confusion about what Quinean meta-ontology is and how it is to be used (especially in arguments for the existence of abstracta). And it think that much of this confusion is unnecessary. So by carefully characterizing Quinean meta-ontology I have tried to point out how some of the debates have proceeded down rabbit trails. My general characterization of Quine’s meta-ontology consisted of three main parts:
i. Theses about existence and quantification.

ii. The normative principle of ontological commitment.

iii. Certain views on the proper use of replacement sentences.

There are apparent disagreements which are only that: mere appearance. I hope to have revealed some of them. But there are also real disagreements, and over each of the three main parts of Quinean meta-ontology. We saw, however, that most of the disagreements were over aspects related to (i).

The focus on (i) seems right to me. Most of us have strong intuitions that something fishy is going on with our quantifiers. This fishiness is hard to pin down, however, and could be related to the nature of existence or to the nature of quantification—or to both. As I have said, the real debate, it seems to me, should be over just what our ordinary-language sentences mean and how they are used (if these are two different things). We have seen examples of this emphasis, especially in the last two chapters. But the issue has been more or less present with us throughout our study. Determining what is going on linguistically is a lot more complicated than is often recognized. That the focus of the objections to Quinean meta-ontology has been on language seems to strongly suggest that this debate over ontology reveals much less about what there is, and points more to puzzling issues surrounding our use of language in communication and thought.
WORKS CITED


