STRUCTURING METAPHYSICAL DISPUTES:
A FORAY INTO META-IDEOLOGY

A Dissertation

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This dissertation is an attempt to get clear on the philosophical implications of a theory’s ideology, especially as it pertains to metaphysics. Roughly speaking, the dissertation can be divided into thirds. In the first third, I provide a preliminary characterization of ideology and in so doing distinguish the multiple ways metaphysicians conceive of ideology. My primary focus is on the differences between what I call ideological externalism and ideological internalism. Ideological externalism is the view on which the quality of a theory’s ideology is evaluated by the extent to which the ideology corresponds to the objective features of the world. Ideological internalism, in contrast, is the view on which the quality of a theory’s ideology is evaluated by how it relates to the theoretical process. In the second third of the dissertation, I argue for a particular version of ideological externalism, what I call non-ontic maximal realism. According to this position, we ought to endorse theories that employ ideology we have reason to believe correspond to the objective features of the world, where these features can be things (e.g. electrons or properties) or non-ontic stuff (e.g. water and quantificational structure). In arguing for maximal realism, I defend both its intelligibility and its viability relative to its competitors. In the final third of the dissertation, I make some methodological suggestions for those who endorse maximal realism. Given that maximal realism is true, how do we
go about determining which theories employ the correct ideology? I advocate for a modified version of the virtue-driven methodology. According to this methodology, the fact that a theory exhibits some theoretical virtue is a reason to believe that it employs the correct ideology. (In the appendix, I suggest that the standard story regarding ideology is historically inaccurate. Quine was not the first to distinguish between a theory’s ontology and its ideology. In fact, the distinction can be found in the earliest figures in analytic philosophy. I illustrate this by discussing Russell’s lectures on logical atomism.)
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This is a work of meta-ideology. I call the question “What ideology should a theory use?” the ideological question. The meta-ideological question, then, is “What are we asking when we ask ‘What ideology should a theory use?’”? These two questions are not as renowned as their ontological counterparts. But they are no less important. In fact, their unfamiliarity makes them more important. Many metaphysicians have firm views about the ontological costs associated with possible worlds (both concrete and abstract). Few, however, seem to have firm views about the ideological costs associated with primitive modal operators.

Given all of this, it might seem as if I’ve jumped the gun. Surely, before I can ask the meta-ideological question, there must be some precedent for the ideological question. But there is no branch of metaphysics that addresses such questions. If I were to introduce myself at a party full of philosophers as someone who works on ideology, I would likely be encouraged to talk to the local Marx scholar.

Fair enough. But as I will show (especially in Chapter 2 and Chapter 3), metaphysicians have been for quite some time asking and answering questions that are in one way or another ideological. The class of ideological questions includes: What resources are required to make nominalism plausible? Is reductive physicalism true? What form of fictionalism is most plausible? Is fundamentality best characterized with a grounding relation or with a sentential operator? What does special relativity say against presentism? Is quantification into non-nominal position intelligible?

So far there hasn’t been a shared framework in which these questions could be

\footnote{Compare to van Inwagen \citeyear{vanInwagen}: 233.}
posed. Neo-Quineanism, the view that ontological questions should be framed using the quantifier of first-order logic, is a mainstream position. Its detractors often suggest helpful modifications rather than wholesale revisions. Nothing like this exists for ideological questions. As I discuss in Chapter 1 and Chapter 2, there are two broad perspectives on the role of ideology in theory choice. But even those who clearly have a perspective rarely articulate it. It is far more common for a metaphysician to implicitly adopt an idiosyncratic approach to ideology in tension with the similarly idiosyncratic approach of her interlocutor. Miscommunication abounds.

The miscommunication is in this case especially harmful. As some have suggested, many metaphysical disputes have stagnated\(^2\) They have stagnated in part because there is no consensus on what is at stake. The meta-ideological question asks for just this consensus. Even properly posing the meta-ideological question, then, should advance these stagnate disputes. But I will also try to answer the meta-ideological question in the hopes that it will go some way toward actually resolving them.

Because I’m trying to structure a wildly unstructured (and perhaps nonexistent) field, there are some assumptions I have to make. Many of these are convictions of mine. But not all. Some of the following assumptions I make merely for expediency.

(1) First and foremost, I am committed to knee-jerk realism. As I define it in Chapter 2, knee-jerk realism is the conjunction of three (perhaps vague) claims: (i) the world is a certain way, (ii) in principle, we can know that some ways of describing the world are better than others, and (iii) it is primarily in virtue of how the world is that these ways are better. Thus, while I will sometimes use anti-realist and skeptical views as foils, I will never entertain them as live options. This is not because I have knock-down arguments against such views. I don’t think there ever could be such knock-down arguments. I simply don’t have much to say on this issue that hasn’t already been said – so I won’t.

\(^2\)Bennett (2009)
(2) Second, I adopt a theory-crafting approach to metaphysics. While I don’t want to give a detailed exposition of the aims of metaphysics, I do want to say something about how I conceive of metaphysics – if only to help show what my project is and, more importantly, what it is not.

Below are brief characterizations of three different approaches to metaphysics. The three approaches are more connected than my presentation suggests. Metaphysicians often use one approach on one day and another on another. Still, there are important distinctions between the three that are worth highlighting.

The first approach I call the *consensus-making* methodology. A metaphysician who adopts the consensus-making methodology comes to philosophy with already established beliefs and intuitions. These beliefs and intuitions are brought to bear on the myriad of metaphysical puzzles, puzzles that are often the logical consequences of commonly held beliefs and intuitions. Careful reflection on the puzzles present a stock of solutions. These solutions are more or less attractive to the metaphysician to the extent that they conform to her beliefs and intuitions about the issue. Sometimes, the puzzles and the solutions force the metaphysician to revise her prior commitments. This push-and-pull between background beliefs and metaphysical puzzles resolves into an equilibrium that reflects the resilience of both.

The second approach I call the *introspective* methodology, a methodology best exemplified by P. F. Strawson. On this approach, metaphysics is about providing a picture of the world that matches our ways of thinking. A metaphysical picture so understood is not merely a series of independent conceptual analyses. Rather, it is a comprehensive system that attempts to expose the conceptual schemes on which we implicitly rely. Though perhaps misleading, I think it is appropriate to group the purely descriptive work of Strawson with some of the work done in social metaphysics. There, it is not uncommon to offer a picture of the world that does
not accurately describe how we ordinarily think. Such a picture is offered as an alternative and recommended (partially) on normative grounds. This engineering approach is importantly similar to Strawson’s descriptive approach in that both are reflections of how we see the world.

The third approach, the approach I endorse, I call the *theory-crafting* methodology. Metaphysics, on this approach, is similar – perhaps continuous with – science. They share subject matter, aim, and methodology. Both seek to discover truths about the world. A metaphysician who adopts the theory-crafting methodology tries to develop theories that account for phenomena of the world. Rival theories are developed and then compared. Importantly, a metaphysician who adopts this methodology does her best to set aside her personal beliefs. She cares very little about which theory best accords with what she previously believed. Her goal, rather, is to develop a theory that should be accepted by everyone.

Almost everything I say in what follows is in the spirit of the theory-crafting methodology. Nevertheless, I think much of it can be of use to those who privilege the other methodologies.

(3) I adopt a linguistic conception of theory. On this conception, a theory is a set of sentences. More specifically, a theory is a set of sentences each member of which asserts something of the world. Much of what scientists and philosophers do fails to make it into these theories. The various arguments [Sider (2001)] levies against presentism, for example, are not part of his theory of four-dimensionalism. Those arguments occur outside the theory as devices to convince us to endorse it.

I understand that this conception is unfashionable in some circles. More popular now is a conception on which a theory is a semantic model. Yet I adopt the linguistic conception for two reasons. First, the philosophers with whom I am primarily engaged

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3E.g. Dembroff (2016): 3–4
4See French and Ladyman (1999): 103
Lewis, Quine, and Sider—seem to talk about theories this way. Since I am not presently interested in challenging this assumption, I will follow their lead. Second, the linguistic conception to my mind provides an easier picture of what a metaphysical theory is. Metaphysicians say some things, they make some claims, they provide some arguments. It’s easier to simply take all of this, formulate it in the right way, and call that a theory.

This assumption will cause headaches at times. I will, for example, sometimes talk about sentences when it would seem better to talk about propositions. Still, consistency is important and these occasional headaches are not too big of a concern.

(4) I repeatedly talk of metaphysical theories. What makes them metaphysical? (This is another way of asking: what is metaphysics?) I don’t have a good answer to this question—no one does. Metaphysics is a messy business. As I see it, if there is any unifying theme to metaphysics it is in providing theories that try to as accurately and literally as possible describe how the world truly is. I will, however, talk as if there is a well-defined class of metaphysical issues that more-or-less matches how the word ‘metaphysics’ is used. Instead of trying to give an exhaustive classification, I’ll just give some paradigm cases and remain open to disagreement about others. These paradigm cases are: presentism, four-dimensionalism, mereological universalism, modal realism, property nominalism.

(5) David Lewis once talked about “total theory” and made that the concern of metaphysicians. I largely agree. A total theory is a complete theory, one that includes enough other theories to provide a comprehensive picture of the world. While I will often talk about metaphysical theories as I did above, such talk should be ultimately understood applying to total theory.

Similarly, a total theory is a theory takes into account the distinction between the fundamental and the non-fundamental. Thus, I largely ignore issues concerning fundamentality. As I see it, a total theory is a fundamental theory. So if Biology is
deemed a non-fundamental science, a total theory will not include biological ideology. Nevertheless, I will rarely talk about which theories are and are not fundamental.

(6) I will assume the Quinean approach to ontology. When trying to discern the ontological commitments of a theory, regiment its claims into first order logic. The theory is ontologically committed to those things that are the values of the bound variables of the regimented claims. As with my assumption of knee-jerk realism, my assumption of the Quinean methodology is not particularly sophisticated. I am a Quinean and I don’t have much to say in its defense that hasn’t already been said. That being the case, my primary interlocutors also adopt the Quinean methodology. Admittedly, there is some nuance in how we all understand it, but the general point remains true.

(7) Some use the word ‘thing’ to pick out everything that falls in the most general metaphysical category. For reasons I lay out in Chapter 3 and Chapter 4, I reject this terminology. ‘Thing’, as I use it, picks out that which populates one of the second-most general categories. Things are discrete existents. Things can be counted and every thing is identical to itself. The contrasting category is that of stuff. (I hope I can be forgiven for making ‘stuff’ pull double duty. There just aren’t that many generic mass nouns. I hereby downgrade Markosian’s stuff to concrete stuff.) According to my generic usage, no stuff is a thing. Stuff can be measured, but there might be no fact of the matter about when some stuff here is distinct from some stuff there. So that the language I use reflects the metaphysics I prefer, I use ‘thing’ as a count noun and I use ‘stuff’ as a mass noun. It will be useful to also have a generic term that can be used for things and structure alike. I use ‘feature’ this way. Though ‘feature’ is a count noun, there aren’t a whole lot of generic mass nouns free from philosophical baggage. In addition, there is an unfortunate temptation to read ‘feature’ as something like ‘property’. Don’t do that! In the sense I intend here,

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chairs are features, as is quantificational structure, as are, yes, properties. Thus, there are ontic features (things) and non-ontic features (stuff).

(8) This last point isn’t really an assumption but something that requires explanation. Throughout, I will be very nitpicky about use and mention. I will use single quotes to mention the expression itself (‘the expression itself’). I will use double quotes around sentences of natural languages (“This is a natural language sentence.”) but single quotes around sentences in formal languages (‘∃xFx’). I will use quotes even when it is glaringly obvious what I mean.

I admit that this impacts readability. I do it in the name of clarity. In the few places where ideology is discussed, the use of quotes is regularly dropped, as well as other seemingly pedantic practices. This imprecision in language leads to confusion, as when it’s uncertain whether the issue concerns a primitive linguistic expression, a concept, or something else entirely. As a corrective, I make it wholly explicit throughout which I am talking about. Dropping quotes is a privilege, not a right, and in our discussions of ideology it has yet to be earned.
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1.1 Introduction

The overarching theme of my project is *ideology* and its role in theory choice. At first pass, an ideology is the framework in terms of which a theory is cast. I admit this is a vague notion and one that does not even benefit from being in common usage. I will make efforts to clarify it along the way. But, following Quine, we can contrast the notion of ideology with that of *ontology*. Both ideology and ontology are features of theories. Or so I will assume. The ontology of a theory is that which the theory says exists, whereas the ideology of a theory is that with which the theory says what exists and more generally that with which the theory says anything at all.

The goals of this first chapter are largely expository. Whereas much of the work done in metaphysics the past fifty or so years has been concerned with ontology, it is becoming increasingly influenced by ideological considerations. This is in large part because of the work of Theodore Sider, though the groundwork was laid earlier by others, most prominently David Lewis. In this chapter I want to highlight two influential and competing conceptions of ideology and its role in theory choice.

To that end, in §1.2 I give an initial characterization of ideology, clarifying some terminology along the way. Then, I introduce the two competing conceptions. *Ideological externalism* claims that the correctness of a theory’s ideology is determined by how the world is. *Ideological internalism* claims that the correctness of a theory’s
ideology is not sensitive to how the world is. Ideology, according to internalism, is evaluated relative to features internal to the theoretical process. In § 1.3 and § 1.4 I develop the externalist and internalist positions, using Sider and Quine as their respective models.

The notion of ideology is inconsistently used by contemporary metaphysicians. In § 1.5, I argue for a particular identification of ideology. ‘Ideology’ is a technical term and so should be defined in a way that maximizes its theoretical utility. Thus we should define ideology linguistically, as the primitive expressions used in developing a theory.

(In the Appendix, I explore the historical roots of ideology. I argue that Quine did not introduce the concept as is commonly assumed. I show that the notion of ideology, while not called "ideology", can be found in the work of other philosophers in the history of analytic philosophy. In particular, Russell utilizes ideology in his discussion of logical atomism.¹)

One of the main goals of my project is to demonstrate how important it is to be explicit about the application of ideology. As I hope will become apparent, differences in how metaphysicians understand ideology have led to confusion in the broader dialectic. To take just one example, one which will be discussed in greater depth in later chapters, externalists and internalists have radically different standards by which they judge the quality of a theory that contains primitive intensional operators (e.g. ‘□’ and ‘◊’ in modal logic, ‘P’ and ‘F’ in tense logic). We cannot determine how advantageous the elimination of such operators is until we determine what their presence or absence amounts to.

If we want to make progress on disputes in metaphysics, we should first establish what is at stake. Bennett (2009) and others have persuasively argued that many

¹Of course, in some sense the notion can be traced all the way back to Plato, for whom we can thank the current bounty of carving metaphors.
metaphysical disputes have reached an epistemic impasse. To adopt her metaphor, at this stage they are nothing more than squabbles over where to leave the bump in the carpet of theoretical costs. I maintain that this impasse is the result of metaphysicians vacillating between incompatible accounts of ideology. Once a consensus is reached, it will be easier to see where we should push the bump.

1.2 Ideology Initially Characterized

If someone were to look upon metaphysical disputes from a distance, she would see certain dialectical moves repeat themselves. Presentists attempt to avoid ontological commitment to past and future entities by introducing irreducible tense operators. Nominalists attempt to avoid ontological commitment to abstract entities by introducing a variety of primitive predicates. Fictionalists attempt to salvage intuitive truths and avoid untoward ontological commitments by introducing an “According to the fiction...” locution.

What do presentists, nominalists, and fictionalists have in common? They all attempt to improve their theory’s ontology by modifying its ideology. According to the Quinean criterion of ontological commitment, a theory is ontologically committed to the values of the bound variables of its regimented quantificational statements. For example, if a theory contains a sentence like “There exists a unicorn,” and it is regimented into something like ‘∃x(x is a unicorn)’, then anyone who endorses that theory and that regimentation is ontologically committed to unicorns. Take the sentence “Three is a prime number.” A straightforward regimentation of this sentence would be ‘∃x(x=3 and x is a prime number)’. A nominalist who accepts the Quinean criterion of ontological commitment commits to the existence of three and prime numbers. Thus, adding an uninterpreted ‘According to the fiction...’ locution does not solve the problem.

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2An expression is primitive relative to a theory just in case that theory does not define the expression. Thus my notion of primitiveness is theory relative. Sometimes ‘primitive’ is used to denote some sort of psychological relationship between an expression and a theorizer – see, e.g., Shapiro [1993]. The two notions of primitiveness are importantly different. Throughout, I use ‘primitive’ and ‘undefined’ interchangeably.
criterion of ontological commitment cannot endorse such a regimentation since she
would thereby be ontologically committed to numbers. She must either not endorse
any theory that contains a sentence like “Three is a prime number,” refuse to regiment
the sentence, or offer an alternative regimentation. The first two options are hard
to maintain. Almost everyone would agree that any plausible theory of mathematics
will include this and similar sentences and that mathematics is indispensable for a
complete understanding of the world. And, in the words of Peter van Inwagen (1998),
“a refusal to go beyond a certain point in replacing the idioms of ordinary English
with quantifiers and variables could leave English predicates that seem intuitively to
be intimately logically related without any apparent logical relation,” (248). So we
are left with the third option. The nominalist project then becomes an attempt to
offer a complete and nominalistically acceptable regimentation of the mathematical
theories indispensable for a complete understanding of the world. This project is often
advanced by the introduction of undefined terminology that would not otherwise be
included in the mathematical theory’s ideology. Thus, the nominalist project becomes
an attempt to improve ontology by modifying (some might say bloating) ideology.

But the converse move – reasoning from ideological considerations to ontologi-
cal commitments – is sometimes just as powerful. David Lewis’ endorsement of his
modal realism is a good example of such a move. Lewis discusses a variety of theo-
retical reasons in favor of modal realism. Prominent among them is its reduction of

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3I’m simplifying here by ignoring the possibility that numbers exist but are nominalistically
acceptable.

4Mathematical theories are typically seen as indispensable in virtue of their role in stating other
theories, e.g. theories of physics. See Putnam (1972); Quine (1981).

5Or, in the more recent words of Peter van Inwagen (2008) in a similar context, “that sort
of response to the argument seems rather lame,” (132). See, also, the discussion of interestingly
Moorean facts in Turner (2016): 1.4.2

6See, also, Geach (1967) for a discussion of the sensitive relationship between ontology and
ideology.
modality. Claims about necessity and possibility, claims otherwise taken to be irreducibly intensional, amount to purely extensional claims about worlds, individuals, and counterpart relations.\(^7\) Other accounts, he argues, must take some modal notions as primitive.\(^8\) In other words, non-reductive theories of modality are more ideologically complex than reductive theories. Despite the view’s seemingly high ontological costs, Lewis is willing to pay the price for the ideological simplicity it delivers:

Hilbert called the set-theoretical universe a paradise for mathematicians. And he was right... We have only to believe in the vast hierarchy of sets, and there we find entities suited to meet the needs of all the branches of mathematics; and we find that the very meagre primitive vocabulary of set theory, definitionally extended, suffices to meet our needs for mathematical predicates; and we find that the meagre axioms of set theory are first principles enough to yield the theorems that are the content of the subject. Set theory offers the mathematician great economy of primitives and premises, in return for accepting rather a lot of entities unknown to Homo javanensis. It offers an improvement in what Quine calls ideology, paid for in the coin of ontology. It’s an offer you can’t refuse. The price is right; the benefits in theoretical unity and economy are well worth the entities.

... As the realm of sets is for mathematicians, so logical space is a paradise for philosophers. We have only to believe in the vast realm of possibilia, and there we find what we need to advance our endeavours. We find the wherewithal to reduce the diversity of notions we must accept as primitive, and thereby to improve the unity and economy of the theory that is our professional concern – total theory, the whole of what we take to be true... It is my view that the price is right, if less spectacularly so than in the mathematical parallel. The benefits are worth their ontological cost.\(^9\)

While ideological considerations have been appealed to widely in metaphysics, it is

\(^7\)See Lewis (1968) for an extensive treatment of the reductive project and a discussion of its advantages.
\(^8\)See especially Lewis (1986): Chapter Three.
rarely made explicit just what such talk amounts to. I’d like that to change.

First, though, an aside about terminology. As I discussed in the Preface, I will adopt a linguistic conception of theory. In practice we have a theory of physics, a theory of mathematics, and so on. Throughout, I will often simplify and talk about total theory, which subsumes all the theories we think are required for a complete understanding of the world. To endorse a theory is to be disposed to affirm the sentences contained in it.

There are two features of a total theory of particular interest to metaphysicians: its ontology and its ideology. Again, as I discussed in the Preface, I will simply assume a Quinean conception of a theory’s ontology. Regiment a theory into either first-order logic or an extension of first-order logic. The closed existential sentences of the regimentation, along with the closed existential sentences logically entailed by the regimentation, represent the ontological implications of the theory. The class of things that serve as the values of the bound variables of these sentences – call it O – is the theory’s ontology. The theory is ontologically committed to O and anyone who endorses the theory is likewise committed to O.

Endorsing a theory entails endorsing both its ontology and its ideology. But so much for ontology. The goal of this chapter is to clarify the notion of ideology and its role in theory choice. Following standard usage, call any potential element of an ideology a bit of ideology. To endorse a bit of ideology is to accept that any total theory you might endorse (given your current epistemic state) will contain that bit.

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10 Rarely, though not never. For further sustained discussion of ideology, see Cowling (2013); Decock (2002, 2004); Fisher (2012).

11 It is difficult to say how best to move from a plurality of theories to a unified total theory. While interesting, I ignore this issue throughout.

12 This is by no means an uncontroversial assumption. Someone might think, for instance, that its acceptable for a Quinean to eschew first-order logic in some contexts. I ignore this option, though – see chapter 4 for more. Thanks to Jason Turner for discussion on this issue.

13 In some cases there will be no unique regimentation and therefore no unique ontology.
of ideology. To endorse one bit of ideology over another is to include the former in any total theory you might endorse at the exclusion of the latter.

I think that there are several aspects of an account of ideology that are under-determined by the use of ideology in the literature. My focus in this chapter is on answers to the following two questions: (1) What is a theory’s ideology? (2) What are the relevant features of ideology for theory choice? Call these, respectively, the identity question and criterion question.

The identity question is more technical than substantive. Really, ‘ideology’ is a term of art, an expression used to employ a useful philosophical concept. In answering the identity question it is not important to provide an answer that matches a pre-theoretic understanding of ideology. It is important, though, to provide an answer that is useful for metaphysical theorizing.

There are three prevalent and inconsistent answers to the identity question in the literature. First, there is the linguistic answer. According to the linguistic answer, the ideology of a theory is to be identified with certain linguistic items of the theory. Second, there is the semantic answer. On the semantic answer, the

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14 There’s a tricky issue here concerning how permissive endorsement is. If your endorsement of a theory is consistent with the fact that (given your current epistemic state) you might have endorsed a different theory, then endorsing a bit of ideology can come apart from endorsing a theory’s ideology even when it contains that bit of ideology. I’m not sure what to make of this, but it doesn’t seem too big of a bullet to bite.

15 For variety’s sake I will sometimes talk of “accepting” or “choosing” a bit of ideology. I mean nothing by these terms beyond endorsement.

16 Examples of the linguistic answer: Bennett (2009); Bricker (2008); Dasgupta (2009); Hawthorne (2009); Pickel and Mantegani (2012); Turner (2016); van Inwagen (2008); Melia (2000) doesn’t say enough to easily classify him but does strike me as endorsing the linguistic answer. McDaniel (2010a) half-heartedly endorses the linguistic answer and attributes it to Quine (631). A.R.J. Fisher at times explicitly gives a semantic answer, but lately seems to prefer a linguistic answer.

17 It might be useful to understand these as interpreted items. On this approach, a bit of ideology is an ordered pair of a “purely” syntactic element and an interpretation of that syntax. Thanks to Jason Turner and others.

18 Examples of the semantic answer: Burgess and Rosen (1997); Cowling (2013); Schaffer (2014a). Oliver (1996) says that “the ideology of a theory consists in the ideas which are expressed within
ideology of a theory is a collection of intentional entities associated with the theory – the meanings of the theory’s expressions, for example. Finally, there is the worldly answer. According to the worldly answer, the ideology of a theory is an immanent feature of the world. Compare the worldly answer to its counterpart in ontology. It is commonly assumed that a theory’s ontology is literally the things out there in the world that the theory says exists. Similarly, someone who gives the worldly answer to the identity question thinks that a theory’s ideology is literally the features of the world that the theory characterizes.

A philosophical term of art that is inconsistently applied is a philosophical term of art that could be more useful. That no one acknowledges the differences between the three answers sketched above is undesirable at a practical level; we should try to come to a consensus on the identity question. In §1.3 and §1.4 I discuss how Sider and Quine answer the identity question. Then, I argue in §1.5 for a maximally neutral linguistic answer.

Let’s set aside the identity question for now and address the criterion question. As I see it, answers to the criterion question can be divided into two camps. I call them ideological externalism and ideological internalism because of the similarities between them and other so-called externalist and internalist positions found in philosophy. According to ideological externalism, the correctness of a theory’s ideology is determined by the world. Externalists disagree on exactly how sensitive the correctness of an ideology is to features external to theorizing. But they agree that external factors play a strong role. According to ideological internalism, the correctness of a theory’s ideology is determined primarily by features internal to theorizing.

The theory using predicates,” (2). Cameron (2012) refers to bits of ideology as “notions” (17–19). Though it’s less than clear, I think Cameron means to provide a semantic answer. He talks of reducing possibility and tense, as opposed to ‘♦’ and ‘It was the case that...’

19Examples of the worldly answer: Torrongo (2014), who seems to identify ideology with fundamental properties and Krämer (2010), who seems to identify ideology with facts.
Within the internalist camp there is disagreement about the “range” of the internalism. Some internalists think that only features internal to the particular individual are relevant. Other internalists think that features of entire communities must be considered.

The distinction between externalism and internalism is hard to pin down. To illustrate this point, here’s an intuitively plausible way to make the distinction that ultimately should be rejected. Internalist criteria are criteria that are about the mental lives and social context of theorizers. This suggests the following way to make the distinction: the satisfaction of internalist criteria supervenes on the internal relations between theories, individuals, and communities and that the satisfaction of externalist criteria does not supervene on such relations. That is, the satisfaction of internalist criteria will be fixed once what is internal to the theoretic practice is fixed. But the same does not hold for externalist criteria; their satisfaction can vary across worlds that are otherwise identical from the theoretical perspective.

This proposed supervenience account is too cumbersome to accurately characterize the distinction between externalism and internalism. First, the supervenience account demands a certain humility with respect to the possibility of a correct externalist theory. Suppose Peter is in w₁ and has developed the ideal theory of cosmology, ideal in the sense that the theory is not only the best available theory but the best theory anyone in w₁ could ever develop. Pedro, in w₂, has done the same. But w₁ and w₂ differ in their natural properties. Specifically, they differ in that the natural properties P₁, P₂, and P₃ are what undergird cosmological facts in w₁ and the natural properties F₁ and F₂ are what undergird cosmological facts in w₂. Peter and Pedro are duplicates. Furthermore, their communities are duplicates. Everyone in both worlds endorses a theory that employs two predicates intended to pick out F₁ and F₂.

From the inside, Peter and Pedro’s situations are indistinguishable. Yet Peter’s
theory is inferior to Pedro’s theory. Peter’s theory attributes to the world natural properties that it doesn’t in fact have. The theory also mischaracterizes the number of natural properties the world has. Since Peter’s theory is ideal, there is nothing that he or his community could do even in principle to avoid missing the mark. The futility of their efforts is even more apparent upon the realization that Peter and Pedro are just two among many internally indistinguishable individuals. Pierre, Pietro, and Pyotr are also duplicates unfortunate enough to live in the wrong world.

The problem is not that externalism faces skeptical scenarios. The problem is that the supervenience account demands that there will always be such scenarios. That is, no matter how good we have reason to believe our theory is, the account entails we are one among many duplicate theorizers almost all of whom are mistaken.

The supervenience account therefore encourages a sort of humility about our ability to develop a fully correct theory. From our perspective, we have no reason to think we are in Pedro’s lucky situation, where his ideal theory matches the world. Perhaps externalists should be humble. But, assuming they shouldn’t, there might be ways to exclude the above scenario. The thesis of reference magnetism – roughly, the view that our language tends to “latch onto” certain features of the world in a way that goes beyond our intentions – might supply the resources needed to show how the above scenario cannot happen.

But reference magnetism is incompatible with the supervenience account. Reference magnetism attempts to rule out scenarios where, so to speak, identical referential input sometimes leads to success and other times leads to failure. These differences are precisely what the supervenience account demands.

The supervenience account also fails to distinguish between internal relations as such and so-to-speak accidentally internal relations. But the distinction is important

\[\text{C.f. Lewis (2009).}\]

\[\text{Compare Schwarz (2014): 31–32.}\]
to make insofar as we need to distinguish things *qua* part of the theoretical process from things *qua* subject matter.\(^{22}\) Take psychology. Choice of psychological ideology is, plausibly, externally constrained. That is, there is pressure to adopt a theory of psychology that employs ideology that matches the objective features of human mental life (their motivations, capacities, etc.). But clearly the accuracy of any psychological theory will depend on the mental lives and social context of humans. The satisfaction of the criteria that determine the choice of psychological ideology will as a result supervene on these mental and social features. On the supervenience account this means that the criteria are internalist, contrary to what was assumed.

Some more nuanced supervenience account might be able to avoid these two problems. I don’t see what it would be, though I do not offer an argument that it cannot be done. Nevertheless, it seems to me that it is a mistake to use supervenience to characterize the distinction between externalism and internalism. The distinction isn’t one of modal dependence. Externalist criteria show that some ideologies are better than others *in virtue of* how the world is. Likewise, internalist criteria show that some ideologies are better than others *in virtue of* our relationship to the ideology. I suggest, then, that the distinction be characterized as a disagreement about the *explanation* we use to justify our choice of ideology.

Explanation and justification are, perhaps, underdeveloped in this context. Yet I think there is something deeply intuitive behind the distinction between ideological internalism and ideological externalism, even if it is difficult to state the distinction precisely.\(^{23}\) Furthermore, in practice the general distinction won’t matter. More specific accounts of ideology will clearly explain in what scenarios their criteria are satisfied. This will help show when – if at all – we can expect to encounter difficulties

Let’s turn to one of these accounts.

\(^{22}\) Thanks to Jack Himelright on this point.

\(^{23}\) It is clear that the two give different answers to the meta-ideological question.
1.3 Externalism, Sider, and the Structure of the World

One prominent version of ideological externalism is that of Sider (2011). Sider’s account turns on structure and its role in metaphysics. Structure is an objective, mind-independent feature of the world. According to Sider, structure is also the unifying feature of myriad debates in metaphysics. As he sees it, A-theorists think the world exhibits temporal structure beyond that granted by B-theorists; primitivists about lawhood think that the world has lawlike causal structure that cannot be reduced to or explained in terms of anything else; and disputes about the substantivity of disputes in metaphysics (meta-disputes, or metametaphysics) are disputes about how influential of a role structure can play in metaphysical inquiry.

In his discussion of structure, Sider appeals to the ideology of our theories. However, it is at times unclear precisely what the relationship between structure and ideology is supposed to be. This is because it is somewhat unclear what Sider takes ideology to be. At one point he defines ideology as “the set of our undefined words/concepts/notions,” (10). Undefined words bear important relations to undefined concepts, but they are by no means the same thing. The ways in which they relate to the world are also quite different. He later talks of a theory’s ideology as being a set of concepts used to state the theory (13). At times Sider even seems to identify ideology with structure itself, as when he says, “A theory’s ideology is as much a part of its worldly content as its ontology,” (13).

Despite the occasional confusing turn of phrase, I think Sider means to give a linguistic answer to the identity question. This is evidenced by the fact that the vast majority of appeals Sider makes to ideology describe it linguistically. The linguistic understanding of ideology also provides the clearest picture for framing Sider’s dis-

\[ \text{[24]} \text{I am indebted to Callie Phillips for discussion on this point.} \]

\[ \text{[25]} \text{By my count over 75% of the uses of ‘ideology’ suggest the linguistic reading.} \]
discussion of structure. Importantly, Sider counts non-predicate terminology as part of ideology. This is because the world contains structure beyond that characterized by predicates. He is quite explicit that quantifiers, logical connectives, and intensional operators, if used to state a theory, are all included in its ideology.

Sider’s other work reinforces this interpretation. In Sider (2009), a predecessor to Sider (2011), he says, “The structure posited by a theory corresponds to its primitive notions – its ‘ideology’ in [Quine’s] terminology – which includes its logical notions as well as predicates,” (417). In two papers concerning composition as identity, Sider identifies plural logical ideology with quantifiers, variables, and predicates – all linguistic entities.\(^{26}\) Most importantly, in arguing for compositional nihilism, Sider (2013) identifies a theory’s ideology with “the undefined notions it employs, both logical and extra-logical,” (3). In his argument for nihilism, he says it “allows us to eliminate the extra-logical (or perhaps quasi-logical) notion of ‘part’ from our ideology,” (3). Again, Sider identifies a linguistic entity as a component of ideology.

Thus, Sider is best understood as giving a linguistic answer to the identity question. More specifically, I will understand Sider as claiming that the ideology of a theory is its complete stock of undefined expressions – predicates, quantifiers, and everything in between.

So what role does ideology play in Sider’s conception of metaphysics? As already noted, Sider thinks that the primary objective of metaphysicians is to discern the structure of the world. But our doing so is mediated by theory. That is, the goal is not to directly perceive the structure of the world but instead to have a theory that correctly characterizes it. Sider uses several different locutions to describe the relationship between ideology and structure. Most prominent among them is the expression that ideology carves nature and that good ideology carves nature at its

\(^{26}\)See Sider (2015): 203, 205 and Sider (2014)
Carving, though, is clearly metaphorical; the expression occurs over 600 times in the text and is never defined. What we do get is an alternative means to formulate the idea the carving locution tries to convey. Sider introduces an operator, \( \mathcal{S} \), that attaches to any expression of arbitrary grammatical category. To say \( \mathcal{S}(\alpha) \) is to say that the world has \( \alpha \)-structure. But Sider is explicit that such expressions do not have objects, linguistic or otherwise, as content. To say that \( \mathcal{S}(\exists) \) is true is not to say anything about the linguistic item ‘\( \exists \)’ or some ineffable object existence or anything like that. \( \mathcal{S} \)-sentences need not be about things; they are non-ontic.

That’s all well and good. But in order for the view to count as properly externalist there needs to be some relationship between language and world, even if the relationship is not properly understood as a relation between two things. In other words, what is it that explains the connection between ideology and structure? Though I will say more about it theory in chapter 3 and chapter 4, until then I will leave the connection underspecified. For now, I reserve the phrase ‘ideological correspondence’ to denote the connection between ideology and world, whatever it may be.

The ideology of a metaphysical theory, according to Sider, is what is intended to correspond to the structure of the world. A completely successful metaphysical theory will only contain undefined terminology that perfectly corresponds to the structure of the world, that perfectly carve nature at its joints. Nevertheless, we can extract

\[ 27 \text{Other locutions include: categorizes, connects, matches, concerns, represents, fits, gives.} \]

\[ 28 \text{Unless we were to use ‘about’ loosely enough, such that ‘\( \Box \exists x(x \text{ is a talking donkey}) \)’ is about the sentence ‘\( \exists x(x \text{ is a talking donkey}) \)’}. \]

\[ 29 \text{Allow me to flag an issue that I won’t be able to address in later chapters. On one reading of Sider, the \( \mathcal{S} \)-sentences are true or false in virtue of how the world is. While we might at times talk about the relationship between bits of ideology and particular structural features of the world, doing so is potentially misleading. We should understand such talk as shorthand for the relationship that holds between the whole of a theory’s ideology and the whole of the world’s structure. (Relatedly, as I will discuss in \text{chapter 2}, talking about the correspondence in terms of relationships is potentially problematic.)} \]
a general methodological principle: when evaluating a theory, accept it only if you have reason to believe that its ideology corresponds to the objective features of the world. Call this methodological principle the correspondence criterion.

In practice, ideological correspondence comes in degrees. The end goal of metaphysics is to have a theory whose ideology perfectly corresponds to the structure of the world. But perfect correspondence is too demanding at this stage of metaphysical investigation. It is quite likely that many of our ideological resources are impoverished in some way or other. The limits of knowledge being what they are, then, we simply try to improve the ideology of our theories. As a result, ideological modifications are judged relatively. If one theory’s ideology more accurately corresponds to the structure of the world compared to another, then we have reason to choose that theory over its competitor. The reason is defeasible, but, according to Sider, success in metaphysics should not be measured by perfect fidelity in correspondence, but by comparative improvement in fidelity.

Of course, not all ideological externalists endorse Sider’s theory of structure. The precise nature of the correspondence between ideology and world will depend on the particulars of the externalist theory. Take the position sketched out in Lewis (1983a), where there is an objective fact of the matter about the naturalness of properties. The property *greenness*, for instance, is more natural than the property *grueness*. This suggests the following (perhaps more readily graspable) version of ideological externalism. The natural properties of the world determine which predicates of our theories we should take as primitive. The correspondence that holds between ide-

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30 Consider the advances in logic, physics, and biology in the 19th and 20th century. I doubt there will be a sudden drop-off of such achievements.

31 The strategy for choice of ideology is akin to the strategy for map-making or reporting. For pragmatic reasons, it is impossible to have a map or a story that perfectly corresponds to what it characterizes. Nevertheless, there are clear standards by which to measure relative success. One map is better than another insofar as it more precisely represents the area and one story is better than another insofar as it more felicitously describes what happened.
logy and world, then, is just the relation of meaning. On this Lewisian version of externalism, our theories should take as primitive only predicates that have as their semantic meaning natural properties.

As an aside, the correspondence criterion as developed here is peculiar to metaphysics. Not all branches of inquiry should be as preoccupied with structure as metaphysics is. That’s no surprise, given that just such a preoccupation is what (partially) makes metaphysics distinct from other fields. Like all sciences, psychology is in the business of providing explanations. There is some pressure for its ideology to correspond to the structure of the world, but it doesn’t totally overwhelm the need for a genuinely informative theory. Plausibly, physics faces more external pressure. But even there it’s unclear if that is the dominant pressure on physical theory choice. Intelligibility, predictive power, and other “non-objective” criteria come into play. In such cases ideological correspondence plays a less important role in theory choice.

The end goal of metaphysics, according to Sider, is to have a theory whose ideology perfectly corresponds to the structure of the world. The limits of knowledge being what they are, in practice we simply try to improve the ideology of our theories.

1.4 Internalism, Quine, and the Intelligibility Criterion

Sider frequently bemoans how Quine introduced ideology because Quine’s choice of words encourages “an unfortunate tendency... to psychologize Quine’s notion of ideology: to regard a theory’s choice of primitive notions – its ideology – as a merely psychological or linguistic or conventional matter...,” (i). This tendency leads us to believe that a theory’s ideology is “a purely arbitrary, conceptual matter” and not, as Sider would have it, a matter of “ontology-free but nevertheless worldly metaphysics,” (112).

Despite Sider’s insistence to the contrary, his conception of ideology is quite different from Quine’s. In particular, Quine’s criterion for ideological choice is different.
In this section, I will briefly discuss Quine’s ambiguous answer to the identity question and then discuss his intelligibility criterion as a paradigm example of ideological internalism. Quine’s criterion does not entail that ideological choices are “purely arbitrary” but it does suggest that ideological choices are independent of how the world is. Thus, Quine’s criterion is a particularly stark example of ideological internalism.

What does Quine take ideology to be? Unfortunately, it seems that Quine either changed his mind or was not clear on this point. When Quine first explicitly introduces the notion, he seems to identify the ideology of a theory with its expressible ideas, where these are “what the symbols [of the theory] mean.” Here, Quine seems to articulate a semantic answer to the identity question that covers the whole of the expressible ideas and not just the primitive ones. In both of these ways he seems to disagree with Sider. But when revisiting the distinction between ideology and ontology 32 years later, he identifies the former with “one’s stock of simple and complex terms or predicates.” Here his account begins to sound more like Sider’s.

But is the or in ‘simple and complex terms or predicates’ the or of inclusive disjunction or the or of exclusive disjunction – or the or of epexegesis? This makes a difference in whether or not we attribute to Quine the claim that ideology includes, e.g., quantifiers and logical operators. Sadly, there is no further epexegesis on the matter.

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32Quine (1951b): 14. I should note that later in the paper Quine attempts to reduce the ontological import of the phrase “expressible ideas”.

33In fact, this exact sentence is almost always cited by those who give a semantic answer to the identity question.

34Quine (1983): 501. What’s even more disconcerting is that he takes himself to be restating what he said before!

35Burgess and Rosen (1997), when detailing Quine’s terminology, identify ideology with the predicates of a theory (7). Van Inwagen (2008) also seems to attribute to Quine the predicate conception. He does admit uncertainty, though, when he says, “I have to say that I do not find the remarks on “ideology” in “Ontology and Ideology” and “Notes on the Theory of Reference” very enlightening. I would say the same thing about the brief discussion of the word in the final paragraph of “The Scope and Language of Science” (The Ways of Paradox, 215–32)”. Van Inwagen also acknowledges
There is room for disagreement on how Quine answers the identity question. I don’t think much hangs on the issue. For simplicity’s sake, from here on out I will work under the assumption that Quine agrees with me (and Sider) on the identity question, that the ideology of a theory is its stock of primitive terminology (extending beyond just its predicates). I think this is the right interpretation based on both Quine’s explicit discussion of ideology and his use of it in various reductive programs. But I won’t be able to fully defend my interpretation here.

What is clear, however, is that Quine’s answer to the criterion question is radically different from Sider’s. In order to grasp Quine’s criterion for evaluating the ideology of a theory, it will be helpful to start where he puts it to work. In [Quine (1951a)], he argues that the analytic/synthetic distinction is untenable. The argument, in short, is that the notion of analyticity needs to be clarified before it can be accepted. But because any attempt to clarify analyticity employs notions equally (or more) unclear, the goal cannot be accomplished. Indeed, analyticity forms something of a definitional circle with self-contradictoriness, synonymy, meaning, et al. All of these notions, then, are subject to the same skepticism.

But it’s not as if Quine is engaging in the childhood pasttime of incessant interrogation. He accepts that some concepts are unproblematically acquired and some expressions are legitimately taken as primitive. ‘Red’, for instance, does not need to be defined. It is already suitably linked to perceptual stimulation. Why, then, does Quine deny that analyticity is among the unproblematic notions? Because unlike a notion such as redness, there is nothing underpinning our understanding of ana-

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36I hope I can extract the exegetical material I want without having to engage in this dispute, let alone resolve it. Perhaps my interpretation of Quine’s argument is misguided. Even so, the argument I present is one that would be available to him.

an extended sense of ideology that includes terminology beyond predicates. See, also, van Inwagen (2009). For more on Quine’s conception of ideology, see Decock (2002). Decock agrees that Quine is unclear in his use of the word. Decock precisifies it as the stock of a theory’s predicates. See, also, Geach (1967), whose use of ‘ideology’ is ambiguous in the same way Quine’s original presentation is.
lyticity besides metaphors, vague characterizations, and appeals to equally opaque terminology. Quine thinks that analyticity fails to meet some minimum threshold of intelligibility to be taken as primitive. With this in mind, the following criterion can be extracted from Quine’s discussion of analyticity: a bit of ideology is acceptable only if it is understandable or intelligible. Call this the *intelligibility criterion*.

Now, there is an issue in identifying where the line between intelligibility and unintelligibility is and how it is drawn. Quine was unfortunately never fully explicit about what intelligibility amounts to. It seems that expressions can gain intelligibility by, e.g., being defined in terms of expressions already found intelligible. Yet some definitions are better than others in virtue of how the definiens is understood. This understanding is also relative to a particular individual. Quine does not presuppose a global standard of intelligibility, for there seems to be no guarantee that everyone will understand the same expressions. Furthermore, as noted with the term ‘red’, some expressions must be “primitively understood” without definition. (Perhaps there is a story to tell linking the intelligibility of terminology to a naturalistic account of concept acquisition. But that is beyond what I can explore here.)

Quine seems to have struggled with the role of ideology in theory choice. In *Quine (1951b)*, where the distinction between ontology and ideology is first introduced, Quine builds an analogy between ideological questions and the theory of meaning in semantics, claiming that “[the former] is heir to the miserable conditions, the virtual lack of scientific conceptualization, which characterizes [the latter],” (15). Nevertheless, ideological considerations and the intelligibility criterion operate in much

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37 While I hope to give enough of an account of intelligibility and understanding according to Quine to make the notions usable, there is probably not much more I can do. Quine seems to take the notion of understanding as primitive. See Frost-Arnold (2013): 34–37.

38 See, e.g., Quine and Carnap’s disagreement about the intelligibility of modal systems. For more on that, and intelligibility/understanding more broadly, see Frost-Arnold (2013).
of Quine’s writing. In the second half of Quine (1956), he attempts to solve the problem of quantifying into propositional attitudes by appealing to reified intensions. However, he then says that “there are good reasons for being discontent with an analysis that leaves us with... intensions” because, among other reasons, “the principle of their individuation is obscure,” (184). He then develops a workaround that appeals directly to the sentences speakers hold to be true. This creates obvious difficulties, as when a mouse’s fear of a cat is explained as its fearing true the English sentence “That is a cat.” Nevertheless, Quine is resigned to “adding obscurity to obscurity,” (187) because an appeal to intensions is too obscure. That is, while obscurity is sometimes unavoidable, there is a certain point at which notions are too obscure, too unintelligible. The infamous qualms about the metaphysical jungle of Aristotelian essentialism that led him in Quine (1953) to deride the use of quantified modal logic can be understood as a refusal to adopt unintelligible ideology. The possibility that the third grade of modal logic, despite its apparent unintelligibility, captures important features of the world does not figure into his deliberations. Many of Quine’s other projects, both big and small, are explicitly efforts of ideological modification.

Intelligibility, for Quine, is a necessary condition on choice of ideology. No bit of ideology can be endorsed unless the individual finds it intelligible. Importantly, for Quine there are no further constraints on choice of ideology. Suppose two bits of ideology $\phi$ and $\psi$ are interdefinable and intelligible to Sarah. Suppose, further, that either $\phi$ or $\psi$ needs to be primitive in Sarah’s total theory and there are no non-
ideological considerations that favor one over the other. So far as Quine’s account of ideology goes, Sarah is free to choose between $\phi$ and $\psi$ in developing her ideology, taking the one as primitive and using it to define the other.

This is all in sharp contrast to the criterion adopted by Sider. For Quine, intelligibility is a relation between the individual and bits of language. On his view, disputes about ideology have nothing to do with the nature of the world. It does not matter what the world is like; if a bit of ideology is found unintelligible it cannot be included in any theory. Sider, in contrast, thinks the intelligibility of a theory’s primitive terminology is not what determines its correctness. The theorizer is unimportant in evaluating the quality of a theory. What matters is the correspondence between the ideology of the theory and the structure of the world.

The difference between the two views – what makes them radically different – is not that for Sider good ideology successfully corresponds to the world whereas for Quine good ideology is intelligible. There is nothing in principle preventing a successful theory’s ideology from both corresponding to the world and being intelligible. There isn’t even anything in principle preventing a necessary connection between the two. Rather, the difference between the two views is what makes it the case that one ideology is better than another. According to Sider, ‘green’ is superior to ‘grue’ because ‘green’ better corresponds to the structure of the world. According to Quine, an ideology that includes ‘analyticity’ is unacceptable because it is unintelligible.

The division between ideological externalism and ideological internalism is not sharp. Someone can endorse intelligibility as a necessary condition on choice of ideology but also endorse some sort of correspondence constraint. But the above

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43 “Philosophers reject their opponents’ ideology in psychological/semantic terms: “I don’t understand what you mean by that,” … But there is a squarely metaphysical issue concerning any proposed piece of ideology (including logical and quasi-logical ideology such as modal operators or second-order quantifiers): does reality contain the requisite structure? If it does, then “intelligibility” in previously “understood” terms is not required for successful reference to and theorizing about that structure, no more in metaphysics than in physics,” Sider (2011): i-ii
disagreement about intelligibility is characteristic of what is at stake for the two camps.

1.5 Answering the Identity Question

In §1.3 and §1.4, I explicated how Sider and Quine understand ideology. I claimed that Sider and Quine extend their linguistic answers to the identity question to include all primitive expressions. This strikes me as the right move. In this section I argue for the linguistic answer and introduce some machinery to evade an objection.

I favor the linguistic answer to the identity question because it provides a neutral framework for discussing the ideology of a theory. Defining ideology in terms of meanings excludes those who are skeptical of meanings, including Quine himself. Similar remarks apply to defining ideology in terms of the structure of the world, or propositions, or anything else metaphysically substantial. Wherever there’s a commitment, there’s someone who wants to avoid it. An account of ideology should not make such desires unsatisfiable – especially if the goal of such an account is to provide a framework within which these kinds of disputes can run. I take the neutrality of my framework to be a serious advantage.

There are, however, reasons to prefer defining ideology in terms of something besides undefined terminology. For one, the linguistic account seems to create an asymmetry between the ontology and the ideology of a theory. According to the Quinean methodology, the ontology of a theory is the collection of things which are required to make the quantificational statements of the theory true. Ontology is located “outside” the theory. In contrast, the proposed definition of ideology locates it “inside” the theory. It is, in a sense, constitutive of the theory.

Maybe this asymmetry isn’t problematic – maybe it’s desirable! But here’s a

44Not fully neutral. It presupposes, perhaps, that there are words. But anyone engaged in the Quinean methodology should grant this.
more pressing issue. While stipulating that the ideology of a theory is the stock of its undefined terminology is overall beneficial for the flexibility it affords, it seems to generate counterintuitive results. Expressions are essentially tied to the languages in which they occur. Strictly speaking, then, it is impossible for any two theories cast in different languages to have shared ideology. This seems implausible. The theories described in a Spanish physics textbook are not importantly different from those described in a French physics textbook. Likewise, use of the English word ‘green’ is indistinguishable from the German word ‘grün’. This is because they are getting at the same feature of the world. In other words, so the thought goes, a theory that uses ‘green’ shares ideology with a theory that uses ‘grün’.

I’m sympathetic to the worry behind this issue, that merely terminological differences between theories are irrelevant. But the worry can be adequately addressed without abandoning the linguistic answer. It is crucial to note that an account of what ideology is does not by itself determine what is important about the ideology. Even on the assumption that the ideology of a theory is its primitive expressions, it is very much an open question what about the terminology matters for theory choice. Reconsider the color example above. According to the linguistic answer, a German theory does differ from an English theory in its ideology. But that does not mean their differences are important. Once we specify what is important about ideology it might turn out that the German theory and the English theory are in that respect the same.

So what is important about ideology? I am not going to answer that question in this chapter. (I answer it in chapter 2) Instead, I will develop a general method of specifying ways in which two theories have similar ideologies. I will then discuss some of the similarities that one might find important. Again, the emphasis is on neutrality. Anyone should be able to adopt my framework and specify whatever

45 Thanks to Jeff Speaks for repeated discussion on this issue.
components they deem relevant. In order to do so, I first define a generalized relation between ideologies, F-Overlap:

**F-Overlap:** An ideology I₁ F-overlaps with an ideology I₂ =df for some class c₁ of undefined expressions of I₁, \( \{x₁, \ldots, x_n\} \), and some class c₂ of undefined expressions of I₂, \( \{y₁, \ldots, y_n\} \), \( Fc₁c₂ \).

That is, two ideologies F-overlap if some elements of the ideologies share some feature. F-overlaps admits of all manner of properties that may or may not be interesting. One particularly interesting F-overlap property is *equivalence of meaning*, or *meaning overlap*. A theory of color cast in German will, presumably, overlap in meaning with a theory of color cast in English. F-overlap is able to articulate that fact. Assume that ‘grün’ and ‘green’ are taken as primitive but nonetheless have the same meaning. The German theory will meaning-overlap the English theory. That is, ‘grün’ and ‘green’ stand in the *sameness of meaning* relation and therefore the ideologies of the two theories meaning-overlap. Differences between terminology that meaning-overlap are plausibly irrelevant to theory choice. But since F-overlap can be used to identify these irrelevant differences, the linguistic answer does not force someone to take such differences seriously.

Similarly, a generalized relation of F-coincidence can be useful in specifying theory-wide comparisons. The F-relation here is symmetrical, so that Fxy iff Fyx:

**F-Coincidence:** An ideology I₁ F-coincides with an ideology I₂ =df for any class c₁ of undefined expressions of I₁, \( \{x₁, \ldots, x_n\} \), there is some class c₂ of undefined expressions of I₂, \( \{y₁, \ldots, y_n\} \) such that \( Fc₁c₂ \).

F-coincidence also helps dispel worries about the linguistic answer. If ‘Mxy’ stands for the *sameness of meaning* relation, S is the ideology of a physical theory in Spanish, and F is the ideology of the intuitively identical French theory, then the following holds:

**Physical Theory Meaning Coincidence:** For any class c₁ of undefined expressions of S, \( \{x₁, \ldots, x_n\} \), there is some class c₂ of undefined
expressions of \( F \), \( \{y_1, \ldots, y_m\} \), such that \( M_{c_1}c_2 \) (and as a consequence \( M_{c_2}c_1 \)).

So someone can adopt the linguistic answer and still compare ideologies at the level of meanings by simply restricting theory choice to alternatives that do not meaning-coincide.

Meaning-overlap and meaning-coincidence are just two kinds of \( F \)-relations that might be interesting. Others include: conceptual-overlap, structural-coincidence and intelligibility-coincidence. Again, my goal here is not to specify which relation is important and why it is so. Rather, I am providing the resources with which we can frame disputes about what is important in ideology and what is not.

\( F \)-relations can even be used to compare a theory’s ideology to some standard. For example, Quine demands that the ideology of a theory be capable of being understood; for every primitive expression, that expression must meet some minimum threshold of intelligibility. Assume, as Quine must, that there is some expression, \( i \), that meets this minimum threshold. Take ‘\( Wxy \)’ to mean “\( x \) is as intelligible as \( y \),” Quine’s Intelligibility criterion can be formally defined as:

**Intelligibility:** An ideology \( I \) is Intelligible = df for any class of expressions \( x \) of \( I \), \( Wxi \).

For Quine, the class of acceptable theories is limited to those that have an ideology that meets Intelligibility. And, so far as ideology is concerned, there are no further constraints.

Strictly speaking, Sider’s account is based on perfect correspondence. But in practice we compare theories for relative degree of correspondence. This makes describing Sider’s criterion for choice of ideology difficult. A usable formulation needs to be sensitive to the degree of correspondence had between ideology and the structure of the world. But we can define a notion of **correspondence-overlap** and a notion of **correspondence-coincidence** to capture the fact that two ideologies may be numer-
ically distinct but importantly similar. Two classes of expressions share a correspondence, Cxy, just in case the expressions of the classes correspond to the same features of the world. Two ideologies correspondence-overlap when:

**Correspondence-Overlap**: An ideology $I_1$ correspondence-overlaps with an ideology $I_2$ relative to some expressions $x_1 \ldots x_n$ and $y_{1 \ldots y_n}$ =df the class $c_1$ of $I_1$, $\{x_1, \ldots, x_n\}$, and the class $c_2$ of undefined expressions of $I_2$, $\{y_1, \ldots, y_m\}$ are such that $Cc_1c_2$.

And correspondence-coincidence holds just in case:

**Correspondence-Coincidence**: An ideology $I_1$ correspondence-coincides with an ideology $I_2$ =df for any class $c_1$ of undefined expressions of $I_1$, there is some class $c_2$ of undefined expressions of $I_2$ such that $Cc_1c_2$ (and as a consequence $Cc_2c_1$).

Correspondence-coincidence is useful in expressing the view that two theories are “mere notational variants”, as the Spanish and French theories of physics seem to be. Correspondence-overlap is useful for specifying what elements of alternative theories are irrelevant. Some argue that differences in logical terminology are not important. One reason for thinking this is that all expressively adequate classes of logical terminology correspondence-overlap.

Because ‘ideology’ is a term of art, it behooves us to use it in a way that enhances its usefulness in metaphysical discourse. As I have shown in this section, an account that identifies a theory’s ideology with its primitive terminology is maximally neutral. It might turn out that the features of ideology relevant for theory choice are narrower in scope. But capturing this fact requires no more than the introduction of some notion of F-overlap and F-coincidence and so should not influence our decision. I conclude that it is best to adopt the linguistic answer to the identity question.
1.6 Conclusion

In this chapter, I explicated the notion of ideology. I characterized how two figures – Sider and Quine – understand ideology. I used their accounts as the basis for a more general understanding of ideology. There is a spectrum of positions about what constrains choices of ideology. One side of the spectrum, ideological externalism, claims that choice of ideology is constrained by how the world is. The other side, ideological internalism, claims that choice of ideology is constrained by features internal to the theoretic process. Finally, I argued that a theory’s ideology should be identified with its primitive terminology. This identification allows for maximal philosophical neutrality and terminological flexibility.
CHAPTER 2

MOTIVATING NON-ONTIC MAXIMAL REALISM

2.1 Introduction

In chapter 1, I illuminated the logical space concerning ideology and theory choice. I showed that philosophers have importantly different conceptions of what ideology is and how it relates to the world. I explored two answers to the criterion question. Sider’s correspondence criterion states that ideology is better or worse to the extent that it corresponds to the objective features of the world. One practical implication of his correspondence criterion is that, when presented with a range of options about what terminology to take as primitive, ceteris paribus we ought to choose the bit of ideology that we have reason to believe better corresponds to the world. The second answer to the question, Quine’s intelligibility criterion, states that a bit of ideology is acceptable just in case it is intelligible. This means that our choice of ideology is restricted only by our understanding and not by the world. These two views will continue to be, respectively, my paradigm examples externalism and internalism.

Now it’s time to argue for a particular account of ideology. In the first half of this chapter, I provide two arguments in favor of externalism. In §2.2 I argue that Quine’s account implies that many disputes in metaphysics are frivolous, not worth taking seriously. Insofar as someone thinks these disputes are important and substantive, she should endorse something beyond the intelligibility criterion. In §2.3 I argue that ideological externalism is able to solve skeptical problems concerning our understanding of the world, and that a position like Sider’s, where the correspondence
criterion applies to the entirety of a theory’s ideology, provides the best and most systematic solution.

While the first half of this chapter argues for externalism, the second half of this chapter addresses arguments against externalism. In §2.4, I defend maximal realism, the view that the correspondence criterion applies to the entirety of a theory’s ideology. I respond to what seems to me the most common objection given against maximal realism: that it leads to bad questions. I sharpen the objection by co-opting Kuhn’s notion of a paradigm. Then I develop the objection into three distinct arguments and respond to each in turn. In doing so, I show that it is hard to be an ideological externalist but take issue with maximal realism. The bad questions objection either fails or shows much more than an externalist should be willing to accept.

Finally, in §2.5 I develop what I take to be the toughest objection to my preferred version of maximal realism, that the features of the world to which ideology is intended to correspond need not be discrete things in the world. Call this non-ontic maximal realism. The objection states that non-ontic features of the world cannot stand in relations. Thus, they cannot correspond to the ideology of a theory. I suggest a workaround and discuss why it might be inadequate. This discussion sets up the topic of chapter 3 and chapter 4 in what sense can a theory be about the world without being about things in the world?

2.2 Internalism and the Substantivity of Metaphysics

My first argument attacks Quine’s account. I argue that a methodology on which the intelligibility criterion is the only means of evaluating ideology is unable to show how some extant disputes in metaphysics are as significant as we think they are. That is, if someone believes that ideology is only to be evaluated on its intelligibility, then she will be forced to accept that many disputes in metaphysics are frivolous,
that there isn’t any good reason to have them. Thus, anyone who thinks metaphysics can play a role in advancing our understanding in these domains has a reason to go beyond the intelligibility criterion\textsuperscript{1}.

On my interpretation of Quine, a bit of ideology is acceptable just in case it is intelligible. There are no further constraints so long as non-ideological criteria are satisfied. This recommends the following procedure. When there is a dispute, evaluate the intelligibility of the terminology employed by all sides. Eliminate from contention those positions that rely on unintelligible terminology. With the remaining options, evaluate their non-ideological merits – ontological simplicity, empirical adequacy, etc. Choose that which maximizes these other components.

This procedure is liable to make many disputes in metaphysics frivolous. Such a dispute can be frivolous in two different ways. First, a metaphysical dispute is frivolous when the resolution of the dispute turns on purely pragmatic reasons. Second, a metaphysical dispute is frivolous when it is easily resolved by non-philosophical means.

Here is a dispute that is frivolous in the first sense. Two philosophers meet at a conference. McX has adopted a mereological system that takes parthood as primitive. McY, in sharp contrast, has adopted one that takes proper parthood as primitive. Now imagine the two of them discussing the relative merits of their systems over a cup of coffee. Whatever reasons they give will surely not be substantive. The two mereological systems are nearly equivalent in all respects. McX and McY don’t disagree on when there is a composite object and neither party is able to express instances of composition that the other cannot. The only reasons for preferring one system over the other turn on pragmatic considerations, things like consistency with the literature, ease of exposition, or brute preference. The dispute is irresolvable

\textsuperscript{1}This argument is inspired by the discussion of ontology and ideology in Decock (2002, 2004). I agree with Decock’s claim that Quine was vaguely aware of the issues to follow. He tried to circumvent them but did not seem too concerned with success.
insofar as the only differences between the two are insignificant for theory choice. A
metaphysical dispute that is sufficiently like the coffeehouse chat of McX and McY
is for these reasons frivolous.

Here is a dispute that is frivolous in the second sense. Suppose Bill and Ted are in
Ancient Greece and disagree about whether or not every celestial bodies is eternal. Each
offers arguments for his position and neither has the upper-hand. At that point
of time, the dispute is not frivolous since there is no easy way to resolve the matter.
But it is frivolous if Bill and Ted have this same dispute in the 20th century. The
evidence available then – evidence neither Bill nor Ted would dispute – decides the
matter. All they need to do is stop arguing and look! So a dispute is frivolous in this
second sense when it is conducted in a way that ignores details that would otherwise
straightforwardly settle the dispute. More carefully, a dispute is frivolous in this
second sense when there is a claim that the disputants would assent to and that, if it
were introduced and combined with shared background assumptions, would resolve
the dispute.

Both the McX/McY dispute and the Bill/Ted dispute are paradigm examples
of frivolous disputes. Quine’s account has as a consequence that many on-going
disputes in metaphysics are frivolous in one of these two ways. Anyone who thinks
these disputes actually are worthwhile, then, should introduce ideological criteria
that extend beyond intelligibility.

Whether or not a particular dispute is frivolous will depend on the exact nature
of the intelligibility criterion. If it is relatively easy for some terminology to be
considered intelligible, then there will be a veritable bounty of alternative theories to
choose from. In many cases there will be no reason to choose one over the other. In
others there will be a clear winner. If there are robust standards on what terminology
is intelligible, then many metaphysical disputes will be frivolous in the second sense.

\(^2\) Cf. Aristotle (1936)
Whatever work to be done in resolving these disputes is obviously beyond the scope of most philosophers’ jobs.

Let’s first focus on what disputes would look like if it were easy to establish the intelligibility of some terminology. One plausible and easily satisfiable condition for intelligibility is definability. It is common for philosophers to explicate a theory’s terminology by providing a translation scheme to translate sentences of that theory into sentences of another. On the supposition that the availability of such a translation scheme guarantees the intelligibility of the terminology in question, for any system that employs intelligible primitives there is an alternative and equally adequate system that employs different primitives guaranteed to be intelligible. introduces a single-predicate system to make a similar point. Any theory T can be “translated” into a much simpler one in the following way. Let ‘F’ be a predicate that applies to everything for which T is true and nothing else. Then a new theory, T’, can be axiomatized as \{∀xFx\}, where ‘F’ is taken as primitive in T’. Since the intelligibility of the predicate ‘F’ is parasitic on the intelligibility of T’s terminology, the ideologies of the two theories cannot be differentiated in a way relevant to theory choice.

A one-predicate theory is obviously awful for many purposes. It fails to be enlightening and isn’t terribly useful for developing further theories. But these are pragmatic deficiencies and do not impact the likelihood of the theory’s truth. Furthermore, there are no other differences between T and T’ relevant for theory choice.

3For example, Hirsch (2009); Lewis (1968); van Inwagen (1986). I discuss definability as an indication of intelligibility further in § 3.4.

4His concern there, of course, is with laws of nature. For Lewis, the laws of nature are the regularities included in the theory that maximizes the various theoretical virtues. But some theoretical virtues, in particular simplicity, are dependent upon the language in which the theory is cast. To avoid this cheap strategy, Lewis maintains that theories need to be developed using predicates that correspond to natural properties.

5Nevertheless such pairs of theories joined this way are importantly distinct; because the original theory employs much more fine-grained terminology, the ideologies fail to meaning-coincide.
By definition the translated theory is empirically adequate only when the original theory is.

On the definability standard of intelligibility, any metaphysical theory will have a competing theory that employs distinct but equally intelligible ideology. Since the two are otherwise the same, a dispute between them will be like the dispute between McX and McY and therefore frivolous.

Of course, someone might not be particularly concerned with such frivolous disputes. It might turn out that there is no single best theory but instead a class of equivalent theories with no reason to choose one over the other. Yet there is no problem here for metaphysics because the disputes we care about are not among this class and are not frivolous.

It’s important to note, though, how wide-spread translation schemes are in metaphysics. Many entrenched metaphysical disputes are such that most agree on how to translate between the main positions. If we grant that intelligibility is trans-theoretical, it is hard to see how their ideologies could be a factor in theory choice.

I will use the dispute about composite objects to illustrate how an extant metaphysical dispute can be frivolous on the Quinean account of ideology. I cannot make nor should someone expect this example to be perfectly generalizable. Each metaphysical dispute will need to be evaluated on an individual basis. Disputes might be frivolous for different reasons; some disputes might not be frivolous at all.

Many disputes in metaphysics follow a pattern [Bennett (2009)] calls “difference minimizing,” (46). In a difference minimizing dispute, each side tries to recapture the alleged loses of her position. The disputant with the more robust ontology will try to downplay the significance of that ontology and the disputant with the more austere ontology will try to overcome the apparent expressive paucity of her theory.

Interestingly, on the Quinean account the one with the austere ontology has the

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upper hand – at least when it comes to composite objects. As is well-established, one challenge for the compositional nihilist is to distinguish between seemingly accurate sentences like “There is a cat on the floor taking a nap,” from obviously misguided sentences like “There is a faerie dragon on the bookshelf eating a fly,” without appealing to the existence (or non-existence) of composite objects.\(^7\) Plural quantification is useful in most cases.\(^8\) Further resources are required, however, when a seemingly accurate sentence already utilizes plural quantification, e.g. “The cats are batting at each other’s faces with their left paws.” Perplural quantification and highly structured plural predicates are useful in these cases. Two common complaints against such devices, however, is that they are unintelligible and that they complicate the theory.\(^9\) These complaints fail, however, on a Quinean account of ideology that employs the definability standard of intelligibility. Sentences containing perplural quantification and plural predicates can be matched with equivalent “normal” sentences in order to secure their intelligibility; such a matching is the whole point behind providing a paraphrase. Furthermore, the Quinean account specifically denies that the number of elements in an ideology is relevant for theory choice.\(^10\) So the compositional nihilist has a theory that matches the expressive power of her opponent’s theory without incurring any costs. Since the nihilist has a more ontologically simple theory, her theory clearly wins. Therefore the dispute about composite objects is frivolous.

As I said, that one dispute is frivolous does not mean that all other disputes are frivolous. But there is some reason to think that the argument can be extended.


\(^8\) “There are simples arranged cat-napping-wise located in such-and-such a way relative to the simples arranged floor-wise.”


\(^10\) Cf. Bennett (2009): 63
The Quinean methodology explicated above severely narrows the criteria for theory choice. The worry is that this stacks the deck against ontologically robust options in a way that seems unfair. The requirements Quine places on ideology are too easy to satisfy.¹¹

What if it were harder to establish a term’s intelligibility? A stricter standard of intelligibility posits empirical facts about us and the world that determine which terminology we find intelligible. Such a standard makes ideology more relevant to theory choice by making it harder to establish intelligibility. A stricter notion of intelligibility should help to exclude theories with ideologies whose intelligibility is wholly parasitic, like that containing the single predicate ‘F’.

So suppose there are some empirical facts that determine intelligibility. These facts might be either specific to the individual or generalized to an entire class of theorizers.¹² Take the individualized case first. Suppose that there is some explanation of the fact that synonymy, for Quine, is unintelligible. It need not follow that this explanation extends to all individuals. What Quine finds intelligible might very well differ from what I find intelligible.¹³ But theory choice becomes a much more private affair if intelligibility is specific to the individual in this way. It’s not at all clear how disputes should be carried out in such an event. Consider a dispute about modality where one party advocates for a reductive account in virtue of finding modal ideology unintelligible. There doesn’t seem to be anything worthwhile for the non-reductivist to say against her opponent. So a strict individual-level intelligibility criterion risks

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¹¹I have restricted myself in my argument to two theories, nihilism and its denial, that are generally well-received. The possibilities are endless when we consider the many theories with radically different ideologies – Quine’s functorese and fictionalism for example. See Schaffer (2009): 367–370

¹²The intelligibility standard also might be parochial. By parochial, I mean specific to theorizers that are in some relevant sense like me or Quine. Someone might develop independent standards of intelligibility for different species, thereby partitioning humans from chimpanzees and Martians.

¹³Given what Quine has said about meaning, modality, and other notions, this is almost certainly the case!
a dialectical impasse that would be frivolous in the first sense.

Now consider a strict standard of intelligibility that guarantees the possibility of inter-personal agreement on what is intelligible. Metaphysical disputes might still come out as non-substantive. If we all agreed on what ideology was and was not intelligible, our agreement would be on the basis of some empirical aspect of our mental lives. Perhaps we are imbued with a capacity to understand some terminology over others. Or perhaps something about our upbringing makes it such that some predicates are within our grasp and others are not. Either way, it would be a strictly empirical question, fully within the domain of some science. We would be given a set logic with a set stock of predicates with which to characterize our theories. While we might come to acquire more predicates (perhaps by discovering new things about the world), their use will be determined entirely by science.

Of course, I cannot authoritatively claim what terminology is or is not intelligible. But return to the dispute about composite objects. Compositional nihilism requires the introduction of plural and perplural quantification in order to match the expressive power of a theory that posits composites. Whatever the strict standard of intelligibility is, these logical devices either will or will not count as intelligible. If they will, then the dispute is frivolous in virtue of nihilism being the clear winner. If they will not, then nihilism is eliminated and a theory of composites wins by default. Furthermore, it would be irresponsible to ignore the empirical issue of intelligibility an instead engage in the exchange of philosophical arguments. A dispute that does so is frivolous in the second sense.

As long as intelligibility is the only criterion on choice of ideology, some metaphysical disputes will be frivolous. I do not claim that this is a problem for Quine. As I understand him, he would agree that many issues in metaphysics are not as significant as others think they are. But someone who thinks that disputes in metaphysics – specifically the dispute over composite objects – are not frivolous should
deny the Quinean conception of ideology. It is too weak to get the job done.

2.3 Externalism and the Escape from Skepticism

Ideological externalism is a family of views about ideology and within it are two important genera. *Maximal realism* is the view that the correctness of a theory’s ideology is determined by the extent to which every element of the ideology satisfies externalist criteria, whatever these criteria turn out to be. Sider counts as a maximal realist because he holds that every element of a theory’s ideology should match the corresponding structure of the world. *Moderate realism* is, as the name suggests, less demanding. It is the view that the correctness of a theory’s ideology is determined by the extent to which some but not all elements of the ideology satisfy externalist criteria. One kind of moderate realism holds that ideologies are more or less correct to the extent that they contain predicates that pick out the perfectly natural properties of the world, but also denies that any such criterion holds for other bits of ideology. The correctness of a theory’s quantificational ideology, for example, is not determined by how the world is. Something like this view is commonly associated with David Lewis. To avoid interpretative issues, let’s call it *folkloric Lewisian realism*.

In this section, I argue for maximal realism. At the center of my argument is a position that I call *knee-jerk realism*. Knee-jerk realism, as I define it, is the conjunction of three (perhaps vague) claims: (i) the world is a certain way, (ii) in principle, we can know that some ways of describing the world are better than others, and (iii) it is primarily in virtue of how the world is that these ways are

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14E.g. Sider (2011); Weatherson (2003); Williams (2015). Schwarz (2014) argues that this is an unfaithful interpretation of Lewis. I’m not sure what to think, myself. But thankfully not much of my project turns on the interpretive issue. Thanks to Jason Turner for discussion here.

better. Knee-jerk realism, so defined, is both a metaphysical claim and a linguistic claim. Someone who endorses knee-jerk realism – that is, a knee-jerk realist – thinks that the world is out there to be discovered, not waiting to be created. I take it that most contemporary metaphysicians are knee-jerk realists even if there is widespread disagreement on what makes these three claims true.\footnote{I’ve also defined knee-jerk realism generically to allow for disagreement among realists on what features the world has. A modal anti-realist and a moral anti-realist can both still be knee-jerk realists, assuming the rest of their beliefs are sufficiently in line with (i)–(iii).}

Enough with the different shades of realism! Below, I present three skeptical arguments that try to undermine knee-jerk realism. Then, I show how a folkloric Lewisian realist would respond. Next, I give a response that is wholly independent of ideological externalism. Finally, I argue that a maximal realist has a better response to the skeptical arguments. Most responses are applicable to only a subset of the arguments. Maximal realism adequately addresses all of these skeptical arguments, as well as their extended versions, in a systematic fashion. This generates the following trilemma: reject knee-jerk realism, adopt a variety of loosely connected theses, or endorse maximal realism. I prefer the third horn.

Along the way, I will show that the three skeptical arguments I discuss are importantly connected. The general technique they employ is to show how, given some evidence and standards of evaluation, there are many more permissible descriptions of the world than knee-jerk realism would allow. Thus, each attempts to undercut the belief that our current practices succeed in narrowing the field of adequate descriptions of the world to a reasonably small class.
2.3.1 Putnam and Models

I start with Putnam’s model-theoretic argument.\textsuperscript{17} According to Putnam, under relatively plausible conditions there will always be a way to make any theory come out as true, no matter what the world is like. That is, there are no false theories. On the face of it, this sounds like the polar opposite of a skeptical argument – indeed, Putnam seems to take it this way. But the conclusion of the model-theoretic argument is incompatible with knee-jerk realism, since knee-jerk realism holds that some descriptions of reality are objectively better than others.

The technical details of the argument go like this. Any theory, in order to be meaningfully judged true or false, needs to be interpreted. For our purposes, an interpretation amounts to a function that assigns extensions to all the non-logical expressions of the language – i.e. predicates and names. Now consider a theory that posits an infinite amount of objects. It is plausible to think that the world contains infinitely many objects. No matter what relational constraints are placed on the theory, there will be an abundance of functions assigning extensions to predicates and names that ensure all sentences of the theory are true. That is, there are many, many interpretations of the theory that are adequate.\textsuperscript{18}

When applied to the model-theoretic argument, knee-jerk realism holds that some interpretations, even if true, are worse than others. Interpretations that substantially depart from the intended interpretation threaten condition (ii) by leaving us in the dark as to what the theory actually says. Thus, there must be some way to constrain the range of available interpretations. Now, Putnam does allow for theoretical and operational constraints – roughly, requirements that the theory satisfy all relevant

\textsuperscript{17}While there are many ways to interpret the argument, I focus on the version found in Lewis (1984). For original presentations, see Putnam (1977, 1980).

axioms and observations, respectively. But these constraints aren’t up to the task. The class of interpretations that satisfy Putnam’s constraints is much too large for knee-jerk realism.

(The theoretical and observational constraints Putnam countenances are, as I see them, internal criteria in the sense developed in [chapter 1]. The satisfaction of Putnam’s constraints does not require us to “look outside to the world.” Furthermore, Putnam denies that there are any external criteria.19)

There are two ways to respond to Putnam’s model-theoretic argument. First, someone could provide a solution. To provide a solution is to defend some additional constraint on interpretations. As far as I can see, a solution will have to employ external criteria on ideological decisions. The folkloric solution suggested in Lewis (1984), for example, is one where interpretations are fixed by the extent to which they pick out the “elite minority” of things and classes. Since most of the interpretations generated by Putnam’s argument refer to classes that are “miscellaneous, gerrymandered, [and] ill-demarcated,” there is in most cases no problem in fixing the correct interpretation (227).

Someone could instead respond to Putnam by criticizing the argument itself. Bays (2001), for instance, argues that Putnam’s position is impossible to state, or at least impossible to state while retaining its dialectical strength. Putnam argues against external criteria by calling them “just more theory” that can be interpreted just as adequately as the rest of the theory. Take the folkloric solution sketched above. Putnam understands the account as itself a component of the theory being interpreted. Thus, just as a theory of physics can be finessed into truth, so too can a theory of philosophical semantics. What counts as gerrymandered and what counts as elite is no less vulnerable to alternative interpretations.

19 According to Lewis (1984: 229, Putnam finds natural properies “spooky” and “medieval-sounding.” I have been unable to find a written record of this from Putnam himself, however.
But in the presentation of his argument Putnam talks as if his words uniquely refer to the theories and models to which he intends them to refer. That is, Putnam seems to take his discussion as independent of the theories under consideration. Understood this way, the model-theoretic argument occurs outside theory and is therefore not vulnerable to reinterpretation. But if Putnam allows himself to do this, he must allow the realist to as well. Otherwise, Putnam would be unjustifiably burdening her with a higher standard than he demands of himself. But the problem vanishes when the realist is allowed to talk as Putnam does. The realist simply provides the relevant criteria that pick out the intended models without subjecting the criteria to reinterpretation. Putnam wants to block this move. But, dialectically, he cannot without thereby undermining his own argument.\footnote{See Bays (2001): 341–348.}

Critical responses to the model-theoretic argument do not appeal to external criteria. They do not, then, motivate ideological externalism. However, since they are local to the model-theoretic argument, critical responses fail to respond to the other skeptical arguments.

2.3.2 Goodman and Gruesome Ideology

The second skeptical argument comes from Nelson Goodman. Whereas Hume cast doubt on the entire practice of induction,\endnote{Goodman (1955)} showed the difficulty in separating the good inductive practices from the bad. We observe a green emerald, and another, and another. Eventually, we decide to project our observations onto the whole class of emeralds and inductively conclude that all emeralds are green. This projection extends both spatially and temporally. That is, we conclude that all emeralds now, wherever they are in the world, are green \em and we conclude that all the emeralds we see in the future will be green.

Inductive practices are common and everyday. We cannot abandon them without
giving up on knee-jerk realism. However, induction has a peculiar feature that typically goes unnoticed. We restrict our inductive practices to certain predicates and do not even consider extending them to others. Yet there seems to be no principled reason to limit ourselves in this way. Consider the predicate ‘grue’. We can introduce ‘grue’ by defining it in terms of ‘green’:

\[ x \text{ is grue} =_{df} \begin{cases} x \text{ is observed before 3000AD and is green, or} \\ x \text{ is not observed before 3000AD and is blue} \end{cases} \]

Every emerald we have so far observed is grue as well as green. Intuitively, when it comes to induction a general claim is justified insofar as instances of it are observed. So it seems we are equally justified in generalizing for grue. But this cannot be the case. Our observations of emeralds are not enough to justify the general claim about grueness. In other words, generalizations involving ‘green’ seem more legitimate or lawlike than generalizations involving ‘grue’. But it is hard to specify why this is the case.

Lewis (1984) explicitly links Putnam’s model-theoretic argument and Goodman’s riddle as highlighting the need for “an objective inegalitarianism of classifications,” (228) And, again, there is a solution to this argument based on folkloric Lewisian realism. Such a realist insists on a principle of charity or “humanity” that restricts “what inductive biases and basic values someone may rightly be interpreted to have,” (375). Natural properties, in virtue of their objective privilege over unnatural properties, make it the case that our observations justify claims about green emeralds and not grue emeralds.

But many other responses require no such commitment to natural properties or other external features. Goodman’s own solution is a good example. As he puts it in

\[ \text{Which time used in defining grue is, of course, irrelevant, as long as it is some time in the future. See, however, Israel (2004) on the importance of formulating the definition of ‘grue’ in terms of observation.} \]

\[ \text{See, also, Lewis (1983a): 375 and elsewhere.} \]
Goodman (1955), “the problem of confirmation, or of valid projection, is the problem of defining a certain relationship between evidence or base cases on the one hand, and hypotheses, predictions or projections on the other,” (84). Goodman takes the relationship to be determined by the theoretical context of the projection. He argues that we should catalog the relative achievements of the competing predicates. For example, the predicate ‘green’ has in the past figured into many more successful projections than has ‘grue’. ‘Green’ is therefore more entrenched than grue. Predicates that are relatively more entrenched are better suited for induction.

It is important to note, however, that Goodman’s defense of ‘green’ is peculiar to the history of human scientific practice. Entrenchment is not a sign from the world that we are getting things right. If there were an alien species that successfully projected ‘grue’ and never used ‘green’, then their inductive hypotheses would justify the former and not the latter. Clearly, then, Goodman’s notion of entrenchment suggests an ideologically internal criterion: insofar as the ideology of our theories should contain only terminology that is conducive to legitimate induction, the ideology should be entrenched.

2.3.3 Kripkenstein and Private Ideology

The last argument is inspired by the private language argument found in Wittgenstein (2009). Pretheoretically, we think there is a straightforward relationship between certain symbols in our language and the world. Take the plus sign, ‘+’. If someone off the street were asked what ‘+’ meant, they would likely say addition. If the person off the street were mathematically sophisticated, she might say ‘+’ ex-

23Entrenchment is not based merely on the projections of the predicate itself, but also on the projections of those terms that stand in logical relations to the predicate. See Goodman (1955): 95

24I say ‘inspired’ so as to avoid issues of exegesis. The argument I present is more in line with those given by Kripke (1982) and van Inwagen (1992), whether or not their arguments are the same as Wittgenstein’s argument.
presses the function that returns 7 when 2 and 5 are inputted, 362 when 157 and 205 are inputted, and so on. What she says is in line with what is typically assumed, namely, that our use of mathematical symbols uniquely picks out certain functions.

Yet there are many functions out there, even though most of them are useless to us and many are even epistemically inaccessible. On what basis is the sophisticated pedestrian justified in what she says? Consider a function we can call *quaddition*. Quaddition behaves just like addition as far as our mental capacity is concerned. Yet the range of both functions extends well beyond them. This is because there are infinitely many numbers, numbers that addition and quaddition range over, such that no human will ever actually conceive of or refer to any of them. Following van Inwagen (1992), call these “enormous” numbers. That there are enormous numbers is guaranteed by the fact that referring to or conceiving of a number takes time combined with the fact that, no matter how clever the technique, there will be numbers reference to which will take more time than we have. By definition, addition and quaddition produce the same results for all non-enormous numbers. But quaddition returns the number 5 for all inputs involving enormous numbers. Now, consider our linguistic practices. Does anything about them determine if ‘+’, as used by us, denotes the addition function rather than the quaddition function? It is hard to see what could. Thus, we are unjustified in thinking that ‘+’ uniquely picks out the function we think it picks out.

In his discussion of the above argument, Kripke (1982) notes that “Goodman’s treatment of the ‘new riddle’ is strikingly close to Wittgenstein’s sceptical arguments,” (58). Even Hacking (1993), who argues that the two arguments are importantly distinct, admits that they both suggest a kind of skepticism that threatens our ability to offer a unique description of the world without heavy reliance on social usage.

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25The problem is not that there is no method which we might use to refer to them, but rather that any method would take too long.
Such a reliance violates claim (iii) of knee-jerk realism. Since a comparison of descriptions presupposes that we can distinguish between these descriptions, both arguments jeopardize our ability to objectively improve upon our theories. Once again, the issue is in minimizing the range of acceptable interpretations of our theoretical practices.

And once again, the folkloric Lewisian realist appeals to the eligibility of natural properties. We come to know the rules of addition by mastering its smaller instances and then “going on in the same way.” What it means to go on in the same way, for the folkloric realist, extends beyond our behavior and intentions. Enormous and non-enormous instances of addition are more alike than enormous and non-enormous instances of quaddition because the property of adding is more natural than the property of quadding. So when the sophisticated pedestrian characterizes the function picked out by ‘+’, she successfully picks out addition.

There are, of course, other responses to the argument. Some, like van Inwagen, are willing to say there is no such thing as addition – no unique referent of ‘+’. A knee-jerk realist cannot accept this conclusion. To do so would be to deny that there is a fact of the matter about how the world is. Now, knee-jerk realism is consistent with there sometimes being no fact of the matter; a knee-jerk realist need not insist that there is a determinate point at which the Outback ends. But the private language argument reaches far beyond the meaning of a mathematical function. For one, the same reasoning can be extended to other expressions. But even when the argument

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27 What follows is a slight adaptation of Lewis (1983a): 375–376.

28 Other prominent responses to the private language argument appeal to internal criteria. Wittgenstein, for example, thought the argument showed the essential role the community plays in fixing meaning. This is because an individual’s proper use of ‘+’ is governed by the standards of the community in which she speaks. That is, meanings are internal constrained. The way the world is plays (at best) a role necessarily mediated by community standards.
is restricted to mathematics the skepticism infects other aspects of a theory. Physics, to take just one example, utilizes mathematical operations in its formulas. But a formula that uses addition is a different description than one that uses quaddition. So a knee-jerk realist must commit to a unique meaning of ‘+’ unless she abandons physical realism.

2.3.4 Maximal Realism and a Unified Solution

I’ve claimed that the three skeptical arguments are importantly related. They challenge the idea that, in most circumstances, theories can be objectively compared. A knee-jerk realist must then respond to all three arguments. There are plenty of responses that have nothing to do with ideological externalism. Why not, then, adopt a piecemeal strategy and approach each argument differently? Why not endorse Bay’s criticism of the model-theoretic argument, Goodman’s answer to the new riddle of induction, and van Inwagen’s suggestion that it is okay if there is no such thing as addition?

I have no problem with piecemeal strategies in general. However, in this context they strike me as inelegant and as missing the point. I think there is something deeply right behind these arguments, namely, that our linguistic and mental behavior and dispositions are unable to fix unique content to linguistic expressions and, therefore, to theories. A piecemeal strategy attempts to explain this point away. A more systematic strategy embraces it and admits that the resources are not sufficient. It then looks for help elsewhere – outside into the world.

In each of the previous three subsections, I sketched a solution based on folkloric Lewisian realism. In general, the folkloric solutions hold that there are objectively better interpretations of our claims. That this is so is guaranteed by two posits. First, not all properties are created equal. Some are perfectly natural, others are completely unnatural, and yet others are natural to some non-absolute degree. Second, which
predicates pick out which properties is partially a function of the properties themselves. More specifically, natural properties exhibit *reference magnetism*. They pull our natural language expressions towards them and away from unnatural properties. *Ceteris paribus*, expressions refer to natural properties as a result of their intrinsic nature. When there are two or more candidate referents of a term, the most natural one wins.\(^{29}\)

The folkloric strategy is systematic in that it supplies the same sort of answer to all three arguments: natural properties help restrict the range of acceptable interpretations. Further, since the folkloric strategy only appeals to the magnetic effects of natural properties on predicates, it is only committed to moderate realism. So it looks like the knee-jerk realist can avoid the piecemeal strategy without endorsing maximal realism. If this is right, she has little reason to be a maximal realist.

But appearances can be deceiving. Folkloric Lewisian realism fails to be perfectly systematic. In some cases the skeptical problem doesn’t lie with the interpretation of predicates.\(^{30}\) To illustrate, I will extend the Kripkenstein argument to cover quantification.

The formal evaluation of sentences involving quantification typically goes like this. An existential statement like ‘\(\exists x \phi\)’ is true relative to a model just in case there is some variable assignment that makes \(\phi\) true. (Commonly, \(\phi\) is an open sentence like ‘\(Fx\)’ and so the sentence is true just in case there is some variable assignment such that the value of \(x\) falls within the extension of \(F\).) Call this interpretation of ‘\(\exists\)’ *intuitive quantification*. Understood this way, quantification is vulnerable to a skeptical challenge similar to the one addition faces. Recall that there are numbers so large that we are unable to refer to them. Likewise, for each number there are

\(^{29}\)It is unclear if the magnetism is exhibited by less-than-perfectly natural properties because they themselves have reference magnetism or because the perfectly natural properties do the work behind the scene, so to speak. But I will set that issue aside.

\(^{30}\)Sider (2011): 6.1
predicates that are satisfied only by that number. These need not be haecceity-like predicates such as ‘is identical to the number 7’. They can be predicates that define mathematical relations, e.g. ‘…is the successor of x’, where x is some impossibly large number also beyond our cognitive limits.\footnote{That is, the argument can be restricted to predicates that express qualitatively essential properties instead of predicates that express thisnesses. Cf. \cite{Adams1981}.} Call these enormous predicates, not because they are themselves enormous but because they are associated with enormous numbers.\footnote{In some cases they will also be in some sense enormous. If it is impossible to utter a sentence containing some term x because x is simply too long, then it is impossible to utter a sentence containing the expression ‘…is the successor of x’.} Here is an alternative interpretation of ‘∃’ that I’ll call deviant quantification. The evaluation of sentences involving deviant quantification depends on the predicates involved. ‘∃xFx’ is true relative to a model just in case either (i) ‘F’ is not an enormous predicate and there is some variable assignment that makes ‘Fx’ true, or (ii) ‘F’ is an enormous predicate and there is no variable assignment that makes ‘Fx’ true.

Some care is needed when introducing deviant quantification lest it be easily ruled out by decree. Suppose the moderate realist gave the following speech. “Sure, there’s this alternative interpretation we could, in some sense, apply to the existential quantifier. But it’s not one that we should apply and, furthermore, it’s one easily ruled out. I hereby stipulate that no sentence of the form ‘∃xFx’ is true when there fails to be a y such that assigning y to ‘x’ makes the sentence true. That is, such sentences are only true when there is such a y. Deviant quantification clearly violates this stipulation and is therefore ruled out.”\footnote{Maybe it’s best to understand the moderate realist as writing this speech instead of speaking it; corner quotes are notoriously difficult to enunciate.} In giving this speech, the moderate realist attempts to fix the interpretation of ‘∃’ merely by stipulation.

But it’s not so clear that her stipulation can work as intended. In her speech, the moderate realist uses existential quantification. Presumably, then, her stipulation is
itself susceptible to deviance. Similarly, the moderate realist’s use of ‘satisfaction’ might be deviant. For something to satisfy a formula might be, contrary to what the moderate realist thinks, for the formula to fall within the extension of non-enormous predicates and to not fall within the extension of enormous predicates. The moderate realist cannot simply rule out deviant interpretations of quantification.\textsuperscript{34}

Furthermore, quantificational statements are the only means we have of saying anything at all about enormous numbers. We cannot refer to them; \textit{ipso facto} no atomic formulas we use can refer to them. So long as they are beyond our means to individually “verify,” intuitive quantification and deviant quantification will never in practice return different results. But they do differ. What, then, justifies our belief that ‘\(\exists\)’ picks out intuitive quantification and not deviant quantification?\textsuperscript{35}

Here’s how a moderate realist can’t respond.\textsuperscript{36} Suppose that the meanings of our expressions are determined largely by use, or convention. “It is raining,” means that it is raining and not that my cat is napping because of the circumstances under which we tend to utter the sentence. But language, like numbers, far outstrips our capacities. There are infinitely many sentences of English that no person could utter in her lifetime. (For example: the sentence “Cats are great and cats are great and. . . ” repeated \(10^{10^{40}}\) times.) Thus, there are no conventions that would determine that some un-utterable expression means one thing rather than another.\textsuperscript{37}

\textbf{Lewis (1992)} distinguishes between “straight” grammars and “bent” or “gruesome” grammars. Straight grammars are the sort that linguists actually propose. They start with our typical utterances and then extrapolate to the un-utterable sen-

\textsuperscript{34}Thanks to Jason Turner here.


\textsuperscript{36}This response is inspired by a discussion concerning the meanings of extremely long sentences. In what follows I’ll only cite Lewis (1992) and Hawthorne (1990). The relevant literature also includes: Hawthorne (1993), Lewis (1969, 1983b), Schiffer (1972, 1993, 2006).

\textsuperscript{37}See Hawthorne (1990): 117–118
tences in the way we intuitively think they should. Bent grammars can be generated from straight grammars by including some additional rule. To take Lewis’ example: one bent grammar “states that every expression with more than forty occurrences of the word ‘cabbage’ is a sentence meaning that God is great,” (110). Presumably, a grammar that included a rule about deviant quantification would also be bent in Lewis’ sense.

According to Lewis, we can secure the meaning of our words so long as we can eliminate bent grammars. He’s not explicit about how the elimination is accomplished. He does, however, say that it might mean “carrying more baggage of primitive distinctions or ontological commitments than some of us might have hoped,” (110). This is followed with a reference to Lewis (1983a), which suggests Lewis thought natural properties could eliminate bent grammars. To offer a crude solution: a grammar is eliminable when it proposes an extrapolation that deviates from objective similarities.

Obviously, much more needs to be show that my crude solution works. But that’s beside the point. This solution is an act of radicalization. Grant that there is a restriction on rules concerning quantification that derives from the existence of natural properties. This is just to say that there is some correspondence between quantification and some feature of the world. If the moderate were to give this response to other non-predicate skeptical arguments as well, then I don’t see how she has avoided maximal realism.

So the moderate needs a response that eliminates the possibility of deviant quantification without appealing to objective features of the world to which quantification corresponds. She might simply deny the possibility of deviant quantification as a candidate interpretation. There is some precedence for this. Lewis (1990) declared the univocity of existential quantification as orthodoxy. Similarly, Peter van Inwagen has presented several arguments against the claim that there are multiple forms of quantification. As he puts it, “a sentence containing specific quantifiers and sorted terms

So, one response to quantifier skepticism available to the moderate externalist is simply: There is no possibility of misinterpretation. There is exactly one thing possibly meant by quantification.

Whether or not this response works, it tries to explain away the problem instead of solve it. Even if in this case the move is well-motivated, the loss of generality becomes greater with the need to respond to skeptical arguments based on other non-predicate ideology. Intensional operators (like ‘\(\Box\)’) might behave deviantly in fringe cases. The same story can be told for truth-functional connectives like disjunction. (In fact, the case for disjunction skepticism is especially compelling given the parallels between truth-functions in a recursive language and mathematical operations.) In virtue of restricting her externalist criteria to predicates, the folkloric Lewisian realist will have to give an answer different in kind from her original account. And so she will fail to be systematic in her responses to otherwise similar skeptical arguments.

A maximal realist faces no such problem. Take, for instance, a version of maximal realism like that articulated in Sider (2011). Instead of making reference magnetism a power of natural properties, make it a power of structure. \textit{Ceteris paribus}, expressions, including non-predicate expressions, gravitate towards better correspondence to the structure of the world. When there are two or more candidate meanings of a term, the one that better corresponds to the structure of the world wins.

On the Siderian solution, the reason why induction is justified for green but not justified for grue is because the world has the relevant structure to justify an inductive inference based on the observation of green objects but not on the observation of grue objects; the world has color structure but not color-\textit{cum}-temporal structure.\footnote{Alternatively, the world has unified-color structure but not disjointed-color structure. The exact picture is likely to be more complicated than I let on here.}
Likewise, we refer to addition and not quaddition because the world exhibits mathematical structure that privileges addition over quaddition.\[40\]

In this section, I presented three related skeptical arguments. Then, I presented a variety of responses to these arguments. Insofar as we think these arguments articulate an important fact about how theoretical language works, we should prefer a systematic response. Folkloric Lewisian realism seems to provide such a response. But there are versions of these skeptical arguments that target ideology beyond predicates. Such an account cannot address these cases while retaining its generality. But maximal realism, the view that all of a theory’s ideology is subject to external criteria, faces no such problem. Thus, maximal realism provides the best answer to the presented skeptical arguments.

2.4 The Bad Questions Objection

So far in this chapter, I have tried to motivate ideological externalism, in particular maximal realism. First, I argued that many metaphysical disputes are frivolous if the only constraint on ideology is its intelligibility. Then, I argued that maximal realism provides the best solution to a cluster of related skeptical arguments.

But turnabout is fair play. I’ve tried to motivate maximal realism. What are some of the motivations against maximal realism? In this section and the next, I will address some problems with the account.

There are a few objections people raise that seem interestingly connected. They are connected in that they are all rooted in the following sentiment. Relative to the goals of metaphysics, there are good questions to ask and there are bad questions.

\[40\] For more on Sider’s account, see Sider (2011): 3.2. See, also, chapter 6. The solution offered by the maximal realist position might, of course, be mistaken. The argument for the fact that the world has additive structure turns on the role addition has had in successful theories. But the inference at play here is fallible. So while maximal realism does provide a solution, it does not guarantee an escape from skeptical scenarios.
to ask. A good metaphysical theory will help us answer the good questions. It will also show us why the bad questions are bad and justify their dismissal. Bad theories, though, permit bad questions. If a view allows us to ask bad questions, then it’s a bad view – even if it helps us answer good questions.

This sentiment is nicely articulated in Rayo (2013). A ‘just-is’ statement, according to Rayo, is a statement that takes two claims and asserts that there is no difference between them so far as what they say about reality. To use one of his examples: for Susan to be a sibling just is for her to share a parent with someone else. Just-is statements are tools that can be used to close theoretical gaps. Someone who says “For a gas to be hot just is for it to have a high mean kinetic energy,” insists that there is nothing about the connection between heat and energy that requires further explanation. Conversely, someone who rejects a just-is statement opens up a range of questions. Sometimes these questions will be good, permitting new and fruitful theories. But these questions might also be bad, the theoretical doors they open not worth the trouble. In other words, the quality of a view is partially determined by the quality of the questions it allows.

Some, Rayo included, have expressed this sentiment (or something like it) in reaction to ambitious realist projects. Even Sider (2011) feels it at times, as when he says, “which logical concepts carve at the joints?…Similarly, which quantifier carves at the joints, ∀ or ∃? You don’t have to be a logical positivist to feel that something is wrong with these questions,” (257).

In what follows, I use the sentiment in three related arguments against maximal realism. More specifically, I develop three distinct senses in which a question might be bad. I then suggest how, on each sense, maximal realism permits bad questions. Since views that permit bad questions should be rejected, maximal realism should

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Rayo (2013): 1.3.1. See, also 1.2.1 and 1.3.2. Robert Stalnaker raised a similar point at the 2014 Central APA book symposium of Williamson’s Modal Logic as Metaphysics, though I am unable to find written documentation of this.
be rejected. Call an argument of this form a bad questions objection.

After developing the three different bad questions objections, I respond to each. My strategy is not to convince everyone. I will instead address the doubts a knee-jerk realist might have in giving such an objection. This knee-jerk realist is not generally opposed to metaphysical inquiry but does worry that there is something distinctively problematic about the kinds of questions that grip me and Sider.

Before I develop the objections, I want to get clear on what it means for a view to permit bad questions. The central idea is that bad views give undue emphasis to questions that, at the end of the day, are not worth asking. I will utilize a vaguely Kuhnian notion of scientific practice to make the idea even sharper. According to Kuhn (1962), scientific development can be understood as follows. At first, there is a disorganized accumulation of data about some topic. During this “pre-historical” stage, there are many equally popular accounts of the data. Eventually, however, a consensus is built around one of the theories (the explanation for the consensus is not always easy to provide). The theory establishes a paradigm, where participants agree on background assumptions that organize and guide past, present, and future research. This paradigm is not unassailable, however. If it proves to be unable to accommodate new discoveries or is found insufficient for the goals of the community, a scientific crisis begins. In this time, a new theory can emerge and supplant the old theory to establish a new paradigm. The cycle then repeats itself.

The details of revolution need not concern us here. More important is Kuhn’s characterization of scientific practice within a paradigm, what he calls normal science. He describes it as a focus on esoteric questions. Esoteric questions are questions that try to fully develop the paradigm. In scientific practice, esoteric research takes two forms: fact-gathering and theoretical activity. The details, again, need not

42Thanks to Michael Rea for this suggestion. I do not intend to endorse any of Kuhn’s claims except insofar as they helps develop the bad questions objection.
concern us here. What is important is that both forms of research use the resources provided by the paradigm in order to create a more comprehensive picture of the world. The paradigm provides the general framework and the esoteric research hooks the framework onto important areas of inquiry.

My suggestion is that specific questions about ideological correspondence are the esoteric questions of the maximal realist’s offered paradigm of metaphysics. For example, Sider’s specific version of maximal realism proposes to understand theory choice in terms of the correspondence between primitive terminology and structure. So the esoteric questions of the paradigm are the particular questions about correspondence. For example: “Does the predicate ‘charge’ correspond to the structure of the world?” Or, in Sider’s terminology, “Is ‘charge’ perfectly joint carving?” or ‘$\mathcal{S}(\text{charge})$’?

Rayo’s sentiment is one on which a view is accepted or rejected on the basis of the quality of the questions it permits. Linking up with the vaguely Kuhnian picture, this means that a paradigm of metaphysics is accepted or rejected on the basis of the quality of its esoteric questions. More specifically, maximal realism should be rejected if its esoteric questions concerning correspondence are bad. A bad questions objection argues that this is in fact the case.

Finally, to help clarify how the conversation could turn out, I want to briefly consider an example of a meta-ontological view that is widely considered good precisely for its ability to dispense with bad questions. Adapting Russell’s logic of definite descriptions, Quine (1948) showed how existence debates can be properly framed. Before, denying the existence of some kind of object appeared to lead to contradiction. Suppose I thought unicorns were nothing but a myth. I might phrase my position in the following way: “Unicorns are nothing but a mistaken belief of the Greeks codified into Medieval lore. Make no mistake, unicorns do not exist.” According to a form of argument associated with Alexius Meinong, the truth of my
statement entails that there are unicorns. The argument, in brief, goes like this. The statement “Unicorns do not exist,” and my belief that unicorns do not exist are about unicorns. But in order for that to be the case, there must be unicorns. Put another way, intentionality is a relation that requires two relata: that which is about something and that which it is about. Quine (and Russell before him) thought that this was bananas. Denying the existence of something should not entail a positive ontological commitment. So Quine proposed regimenting existence questions into first-order quantification. He in effect offered the just-is statement: “To exist just is to be the value of a bound variable (of a properly regimented theory).” Doing so clarified what someone asserts when she affirms or denies the existence of something. It also clarified what she did not assert – namely, that there was such a thing. So questions like “What is the nature of the referent in negative existential statements – e.g., what does ‘unicorns’ refer to in ‘Unicorns do not exist’?” – fade away. Quine’s theory of ontological commitment was thus able to help answer good questions about existence and dismiss bad questions about non-existing objects. Meinong’s theory, in contrast, fell prey to those bad questions. Any theory that is similarly led astray is subject to a sort of bad questions objection.

Back to ideology. According to maximal realism, the quality of a theory’s ideology is determined by the correspondence between the ideology and features of the world. For each primitive term φ, we can ask “To what extent does φ correspond to external features of the world?” But the doubting realist thinks there are some terms for which this question is misplaced. More specifically, she thinks that questions concerning the correspondence of terms that are not predicates or names are bad. Since maximal realism includes these bad questions as esoteric questions, it should be rejected.

But why are these questions bad? I will discuss three different senses in which a question might be bad, each of which can be used to develop a distinct bad questions

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43See Meinong (1960): 85 for an original presentation of the intentionality argument.
objection. Though by no means exhaustive, these three arguments are fairly diverse and interesting applications of the Rayo sentiment. First, such questions might be meaningless. Asking if the world has conjunctive structure is like asking if the nothing itself noths. Second, they might be unanswerable. There may be some fact of the matter about the correspondence between “problematic” terminology and features of the world. But there’s nothing we could do to discover it. There is an insurmountable gap between theory and world. Third, the questions might be answerable in principle but nevertheless unproductive. We should base our research programs around issues that are important. But the esoteric questions unique to maximal realism do not lead to any substantive progress on these issues. So we should set the view aside and focus on other issues.

I develop and respond to each of these arguments in turn. The general strategy behind my responses is to show that the doubting realist is more like the maximal realist than she might have thought. So the bad questions objection either fails or shows that the realist should abandon questions she has, up until now, pursued.

2.4.1 Are These Questions Meaningless?

The semantic version of the bad questions objection is inspired by Rudolph Carnap. As he understands it, all inquiry occurs within a linguistic framework. Now, Carnap (1950) is predominately concerned with matters of ontology. He thus distinguishes between two types of questions concerning existence. Internal questions are

44It’s worth noting that a theory need not be rejected simply because its questions sometimes lack fully determinate answers. Here’s a question that seems to be permitted by maximal realism: Which better corresponds to the structure of the world, ‘□’ or ‘◊’? But what if there were no fact of the matter? What if on one approach ‘□’ was better and on another ‘◊’ was better? That would be interesting! But it wouldn’t be a problem. That is, a question can have no determine answer and still be good. Compare: a theory that posits metaphysical vagueness will have questions with indeterminate answers. Suppose there were some simples in the other room and it were vague whether or not they constituted a life. Then the question “How many living things are there in the other room?” has no determinate answer. That’s interesting! But it’s not a problem so far as the question is concerned. Thanks to Jason Turner for pushing me here.
formulated with help from the linguistic framework. *External questions* attempt to “escape” the framework and ask about the system itself.

The questions Carnap characterizes are ontological questions. But the lesson is applicable to ideology. All questions are raised within a linguistic framework. The framework, of course, establishes the connections between elements, the inferences that can be made, and so on. But the framework itself is a feature of any theory it generates. This is because the theory will be cast in the language introduced by the framework; the framework partially constitutes the theory’s ideology. Choosing one framework over another involves choosing one ideology over another.

Carnap is engaged with ideological choice. But it is clear that the kinds of questions encouraged by maximal realism are meaningless to him. Carnap does discuss the criteria that factor into the adoption of one framework over another. But they are entirely pragmatic, and therefore internal.\(^4\)

There is nothing external constraining our choices.

Thus there is a strong parallel between external ontological questions and what we can call external ideological questions. Both attempt to ask about the system itself. In the ontological case the form is something like “We talk as if there are numbers. But are there *really* numbers?” The answer to this question cannot be satisfied by looking around, or by reviewing our language. It is a question peculiar to speculative metaphysics. Likewise, an external ideological question – e.g. “Does the world *really* have modal structure?” – cannot be answered by non-philosophical means. It is intended to test the legitimacy of a framework. But, as Carnap would tell us, that makes the questions meaningless. There is nothing tethering them to language. Both the external ontological question and the external ideological question are “pseudo-statements without cognitive content,” (26).

\(^4\)Carnap talks of the decision as “practical, not theoretical.” One evaluates the extent to which the language is “expedient, fruitful, [and] conducive to the aim for which [it] is intended,” (31).
Obviously, meaningless questions are bad and a theory that has them as its esoteric questions is also bad. But is Carnap right in thinking that the questions raised by maximal realism are meaningless? It’s hard to see how that could be the case. A strict Carnapian view, one that claims all external questions are meaningless, is difficult to defend. And it is a view that no knee-jerk realist would be inclined to endorse. Many realists think that external questions concerning predicates are meaningful – that it makes sense to ask if there is something mind-independent which makes ‘green’ better than ‘grue’ for describing the world. But there is no clear way to semantically distinguish between these reasonable questions about predicates and more controversial questions about, say, logical operators.

One way the doubting realist might try to make the distinction is by appealing to the notion of a logical constant. According to this strategy, a question that asks about the external constraints on logical constants is meaningless. At first glance, this produces the right results. The logical connective ‘∧’ is a logical constant and so any external question about it is meaningless. In contrast, the predicates ‘green’ and ‘grue’ are not logical constants and so external questions about them are meaningful. Because a maximal realist counts both as meaningful, we should reject her account of ideology.

There are at least three problems with this strategy. First, properly defining which expressions are logical constants and which are not is notoriously difficult. Insofar as the distinction is supposed to help explain why the questions are meaningless, the lack of an adequate definition is problematic. Second, it seems ad hoc without some further explanation for why the distinction matters. What difference does it make

46 Cf. Thomasson (2009)

47 A similar approach, one that appeals to the notion of topic neutrality, is question begging in this context.

48 This is consistent with there being meaningless questions about, e.g., predicates. The strategy is just one way to argue for meaningfulness.
if an expression is a logical constant or not? Finally, and most importantly, any
distinction or explanation in the area is unlikely to successfully separate the issues
the doubting realist finds meaningful from the ones she does not. As I mentioned in
§1.2 Lewis motivates his modal realism by showing how it allows him to eliminate
modal operators from his ideology. Actualists, in contrast, deny the existence of
mere possibilia and are thereby forced to include some modal notion or other in
their ideologies. One plausible version of actualism refuses to analyze the modal
operators ‘□’ and ‘◊’. Others claim they and other modal notions (e.g. ‘makes true’) are interdefinable. Many realists, I suspect, find the actualism/possibilism dispute
meaningful. But then the moderate must explain how modal operators are not logical
constants. I don’t see how this can be done.49

2.4.2 Are These Questions Unanswerable?

According to the epistemological version of the bad questions objection, there
might very well be a fact of the matter about how non-predicate ideology maps onto
the world, but such facts are beyond the scope of our knowledge. An ideology that
includes the Sheffer stroke might better correspond to the features of the world than
an ideology that includes negation and disjunction. But we can never know if that is
the case. There is nothing we could do even in principle to gain that knowledge. We
should reject maximal realism because it allows questions about these unknowable
features.50

What might be the reason for our inability to acquire knowledge in one case

49Similar responses can be given based on disputes in the philosophy of time and fictionalism.

50While the semantic version of the bad questions objection has clear historical grounds, it is
harder to find an uncontroversial precedent for the epistemological version. The position I sketch
here might strike some as mildly Kantian in flavor. A different position is articulated in Bennett
(2009). There, she argues that some metaphysical disputes are such that we are unjustified in
endorsing any of the available theories. In large part I agree. But the upshot of Bennett’s argument
is not to abandon the disputes but rather to reconsider their terms – that is, to reconsider how best
to evaluate a theory’s ontology and ideology. That is precisely what I am trying to do.
but not the other? Here’s a suggestion. Certain features of the world are forced upon us by nature. Maybe this is because there is a causal connection between the world and our minds when it comes to these categories. That is, we literally causally interact with some structural features. This connection brings about the possibility of knowledge. In slightly more detail: empirical observations of the world, in particular those related to scientific practice, are in part interactions with structure. We use language to represent said structure, casting our theories in a particular ideology. But, plausibly, not all structure causally interacts with theorizers. Knowledge of causally isolated structure, then, is impossible to acquire.

The epistemological version of the bad questions objection shows too much. First, it is vulnerable to the third response I gave to the semantic version. If knowledge of structure is limited to knowledge of causally influential structure, then many disputes that are typically respected among metaphysicians will become irresolvable. The dispute between the possibilist and the actualist is a great example of this. David Lewis clearly holds that possible worlds are causally isolated from one another. So modal structure, for the possibilist, is causally isolated from theorizers. According to the actualist, modal structure (whatever that might look like) is likewise causally isolated. The choice, then, is between two accounts positing features that we in principle cannot causally interact with. According to the causal approach to the epistemological objection, this suggests that questions about modality cannot be adequately answered. So some of the questions already permitted by the doubting realist are no less suspect than those permitted by the maximal realist.

But perhaps the realist who is motivated by the epistemic worries sketched here is less moderate than expected. Perhaps she is happy to dismiss theories in metaphysics that involve causally idle elements. Is she happy to dismiss all such theories? Many scientific theories posit stuff that is causally isolated from us\(^{51}\). Some of these might

\(^{51}\)For a great example, see, of course, the Quine-Putnam indispensability argument for the exis-
be justified through alternative means. But can all of them? If not, then unless the realist is prepared to reject physics she owes us an explanation for the difference in standards.

I don’t think the doubting realist can plausibly maintain that causal connection is a prerequisite for knowledge in these cases. The methodology of most metaphysicians permits inferences to the best explanation. This is especially apparent when reflecting on the metaphysics of abstracta. Indeed, it is hard to see how any substantive metaphysical theory could be defended without abductive reasoning. But then why would there be an epistemic problem in cases concerning something causally isolated from us? Abduction might face problems on its own, but those are not made worse by switching from causally linked inferences to causally isolated inferences, from questions about predicate structure to questions about logical structure. The doubting realist must provide some other means to make the epistemological distinction.

2.4.3 Are These Questions Unproductive?

So far I have argued that it is hard to distinguish between seemingly good and bad metaphysical questions on semantic or epistemic grounds. But what if someone granted all of that and insisted that there was nevertheless a pragmatic difference between the two? There is no shortage of philosophers willing to say that metaphysics as a whole is pragmatically misguided. But I am not interested, here, in addressing that larger issue. What pragmatic difference between the questions might the doubting realist appeal to?

Perhaps the doubter is concerned about the upshots of metaphysical paradigms.

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52 A slightly different version of the epistemological objection might appeal to a difference in the fallibility of our faculties as applied to questions about logical connectives and questions about predicates. Much of what I say against the causal version can be applied to the fallibility versions mutatis mutandis.
According to her, the purpose of metaphysics is to engage with science and everyday life. The moderate would admit that it is not immediately obvious how the issues commonly dealt with in metaphysics are relevant to these pursuits. But they are. (The A-theory/B-theory dispute, for instance, directly interfaces with the physics of space and time.) While some of the esoteric questions of maximal realism are well-connected, many others are not. Some questions about the correspondence between ideology and the world don’t matter. It makes no difference whether we use ‘∧’ or ‘∨’ in our theorizing; the matter is trivial. Either is just as fine for our purposes and fretting about it is pointless. So the maximal realist project is misguided.

Let’s be forthright about the role of philosophical projects. A project’s influence is best measured by first filtering out the trivial elements. Not every issue the project might permit need be seriously discussed. According to utilitarianism, there is a legitimate question about how good my breakfast was this morning. But there is no reason for ethicists to spend any amount of time answering that question. So it is no knock against a maximal realist account that some of its questions are unproductive. Indeed, even if most of its questions were, the few that were not might turn out to be worthwhile enough to redeem the whole endeavor. In other words, the pragmatic version of the bad questions objection is too weak to justify rejecting maximal realism.

Furthermore, a question can be productive even if there is no substantial shift in what is believed. Imagine a scenario where a group of epistemologists not only agreed that knowledge is justified true belief but could see no way for it to be otherwise. Then imagine that this group of epistemologists are confronted with a Gettier case. They then ask themselves, “Is knowledge not what we thought it was?” After a period of crisis, the epistemologists finally agree that knowledge is what they thought it was, though perhaps the answer is less obvious than they first thought. During the

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53 Maybe the doubter is concerned with the practical upshot of metaphysical inquiry, which is most easily seen through its application to science and ordinary life.
crisis, however, many alternative accounts are proposed and their relative merits are discussed. The lesson is that the question posed by the Gettier case was productive because it enriched the group’s theory even if it did not substantially change it.

Many of the esoteric questions within maximal realism are productive in at least this sense. The green/grue question is a great example of this, although there are many others. The motivation for the original discussion in [Goodman (1955)] comes from considerations about confirmation in science. The new riddle of induction wasn’t seen as some abstract and largely irrelevant puzzle of metaphysics. Rather, it was seen as part of the foundations of an epistemology of science. The shape of the discussion, admittedly, has since shifted. But maximal realism and ideological externalism more generally have the resources to provide an epistemology of confirmation. Surely that is a productive result.

Furthermore, some of the allegedly bad questions are actually productive. The doubter is likely to find questions about the correspondence between predicates and world as good but find questions about the correspondence between logical terms and world as bad. This extends to quantifiers. Yet considerations about the correspondence between quantifiers and world have led to Kris McDaniel’s thoroughly developed theory of quantifier pluralism. Quantifier pluralism is proving to be a fruitful theory [McDaniel (2009)]. McDaniel (2009) uses it, for instance, to make sense of Heidegger’s project in *Being and Time*, where his interpretation turns on a question about the relationship between a language’s quantifiers and the way the world is. Quantifier pluralism has also been useful in resolving tensions in the classical doctrine of divine simplicity (McDaniel (2010b): 693). More pragmatically, quantifier pluralism can illuminate the role and value of human beings in the world. The theory suggests the following question: do the quantifiers of our final theory range over human beings?

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54 For simplicity, I am ignoring the difference between quantifier pluralism and ontological pluralism. See § 5.4.1.
If not, does this mean we have no value?\footnote{55} It also makes sense of the predominant undergraduate sentiment that there are numbers and there are chairs but that numbers and chairs do not exist in the same way.\footnote{56} Even if quantifier pluralism is wrong, our theories are enriched by entertaining its possibility.

Maximal realism also raises questions about correspondence that promise to generate many productive research programs. Here’s a line of thought I find promising. For any bit of ideology, we can ask what feature of the world that bit corresponds to. In some cases it’s hard to see what these features could be. This is because we often ontologize features of the world. That is, we take features to be \textit{things}. But the structure of the world need not be a thing. Just like predicates are suited to correspond to properties, there is a special class of expressions that are suited to correspond to non-ontic features. Call this the class of \textit{non-ontic ideology}. I suggest that this class of expressions includes the truth-functional connectives, quantifiers, and modal operators. Metaphysicians have worked extensively with non-ontic ideology. Outside of the paradigm of maximal realism we are led to believe, falsely, that it does not pick out features of the world. But non-ontic ideology is in fact just as objective as ontic ideology like names and predicates.\footnote{57} I will say more about this in chapter 3 and chapter 4. And in chapter 5 I will say more about specific kinds of non-ontic ideology.

Finally, maximal realism doesn’t face any special problem of separating productive questions from unproductive questions. Even if we grant that certain allegedly bad questions are allowed and that within the framework there are no principled reasons for avoiding them, they still might make us feel squeamish. And so as a pragmatic

\footnote{55}This point, and many more, are developed in McDaniel’s forthcoming book, \textit{The Fragmentation of Being}. There are other projects have in one form or another been influenced by quantifier pluralism.

\footnote{56}Turner (2010): 5

\footnote{57}See Lowe (2004) for an alternative attempt to articulate this thought.
matter we avoid them. This is perfectly analogous to what other philosophers do within their projects, and even to some extent to what scientists do. What more could we want?

2.5 Ideological Correspondence: What It Is Not

According to maximal realism, all of a theory’s ideology is subject to some sort of correspondence criterion. What the correspondence looks like varies across different maximal realist accounts. Someone could endorse a version of maximal realism that merely expands folkloric Lewisian realism. On this account of maximal realism, a theory’s ideology should correspond to the natural properties of the world. Insofar as an ideology should include things like quantifiers and modal operators, these bits of ideology should correspond to natural properties.58

But the correspondence need not be to natural properties. My preferred version of maximal realism endorses Sider’s idea that successfully corresponding ideology need not correspond to some thing in the world. Call this view non-ontic maximal realism. Ideology, understood this way, is in some cases intended to correspond to non-ontic features of the world.

A deep problem with non-ontic maximal realism concerns the correspondence that rests at the foundation of the account. It would be reasonable to be confused by my appeal to the correspondence of ideology to the non-ontic features of the world. Just what is this correspondence? So far I have done nothing beyond explain its role. More is required to flesh out the theory.

In developing non-ontic maximal realism, it would be nice if I could find a notion that does what I need and that is well-characterized elsewhere. The problem is that nothing seems to fit. One issue is that ideological correspondence comes in degrees.59

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58I suspect Kris McDaniel endorses something like this.

59I think it is plausible that all of our current theories don’t quite get at the actual structure of
Most familiar linguistic notions do not admit of degrees. A word either refers to an object or does not. There's no sense in which a word could refer to an object better than another word.

Another, more serious, problem is with the non-ontic aspect of ideological correspondence. According to non-ontic maximal realism, some bits of ideology will correspond to non-ontic features of the world. But reference is a relation that holds between words and objects. So ideological correspondence can’t be understood in terms of reference. Other familiar relations in the vicinity – truthmaking, representation, expression, denotation – will not work for the same reason.

Put another way, my preferred account seems to assert something nonsensical. It demands that the worldly features to which ideology sometimes corresponds be non-ontic. But it is hard to see how any sort of correspondence can accommodate this demand. Correspondence seems to be a relation. Relations relate things, which are decidedly ontic. So if there is a correspondence between ideology and a feature of the world, that feature is a thing. Yet that is straightforwardly inconsistent with my account.

I take this to be a serious challenge to the account of ideology I prefer. In chapter 3, I articulate why the non-ontic thesis is so difficult to maintain and, in chapter 4, I argue that it can be done. For now, I offer a workaround. I provide truth conditions for structural correspondence that is in some way consistent with non-ontic maximal

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For a similar argument against structural realism in the philosophy of science, see Chakravartty (2003): 871–872.
realism. These truth conditions involve some pretty robust metaphysical theses. Note, however, that these are truth conditions and not analyses or reductions.

Assume a robust theory of Platonism. For every predicate there exists a unique associated property. Also assume a theory of natural properties. Assume that naturalness comes in degrees that can be modeled as a number line from 0 to 1. The properties natural to degree 1 are perfectly natural, properties natural to degree 0 are perfectly unnatural, and properties natural to some degree between 0 and 1 are to that degree natural. Then meta-level sentences about a theory have the following truth conditions:

\[ \text{TC: } \neg x \text{ corresponds to the structure of the world to degree a } \iff (i) \ x \text{ is about some structure, (ii) that structure instantiates some property } F, \text{ and (iii) } F \text{ is natural to degree a} \]

There are at least two reasons to be unsatisfied with the proposed truth conditions. First, they completely abandon my previous goal of neutrality. While this is regrettable, neutrality is less important for the criterion question than it is for the identity question. The former will clearly involve substantive metaphysical commitments.

The second reason to be unsatisfied with the proposed truth conditions is that they seem to preserve the possibility of non-ontic features only to eliminate it a step later. The proposed truth conditions appeal to the aboutness of a term. But doesn’t this entail the existence of some thing to which the term relates? It certainly seems so; it’s not obvious why aboutness would be less “ontologically-laden” than correspondence. Likewise for instantiation. So the truth conditions fail to illuminate the nature of ideological correspondence.

\[ ^{61} \text{Modify the theory as you will to avoid Russell’s paradox.} \]
2.6 Conclusion

In this chapter, I developed and motivated my preferred account of ideology, non-ontic maximal realism. I showed that some purported problems for the view are no more troublesome for it than they are for less robust accounts of ideology. I ended with a difficult problem facing any non-ontic account that endorses a correspondence criterion. How can ideology correspond to the world when there is no particular thing in the world it corresponds to? In the next two chapters I tackle this problem head on.
3.1 Introduction

On my preferred account, non-ontic maximal realism, ideology is sometimes evaluated by the extent to which it corresponds to the non-ontic structure of the world. Since so much rides on the concept of structure, it would be devastating to my account if the concept were untenable. Many have claimed that this is the case. The most potentially devastating version of this claim is the charge that a theory that posits non-ontic structure is literally unintelligible. In this chapter, I argue that the unintelligibility objection fails.

In § 3.2, I briefly discuss two salient features of my account. First, I discuss why it includes ‘structure’ as a primitive. Second, I discuss how my account, and any other that posits non-ontic structure, is inconsistent with an intuitively appealing picture of the world.

In § 3.3, I develop the aforementioned intuitively appealing picture, one where the world is a collection of objects and their properties. Some think that this picture is not only appealing but conceptually necessary. Yet non-ontic structure is neither a thing nor a property and so doesn’t fit into this picture. Any theory that posits non-ontic structure is inconsistent with this picture and therefore unintelligible. Call this the objection from ontologism. I end the section by introducing a precise sense in which a claim can be shown to be inconsistent with ontologism.

In order to properly evaluate the objection, I need to establish what the charge of intelligibility amounts to. In ??, I delineate different accounts of intelligibility and
evaluate the extent to which they can generate an effective version of the objection. I settle on a sociological account of intelligibility as that seems most likely to be dialectically efficacious.

In § 3.5 I evaluate whether or not a theory that posits non-ontic structure meets the sociological standard of intelligibility. I explore three extant positions in the literature that are viewed as intelligible: plural quantification, primitive tense theory, and stuff ontology. These three views are each inconsistent with ontologism. By the sociological standard, then, a theory that is inconsistent with ontologism can be intelligible. So the strongest version of the objection from ontologism fails to demonstrate the unintelligibility of a theory that posits non-ontic structure.

3.2 The Sorry State of Structure

On my preferred account of ideology, a theory should include ideology that corresponds to the features of the world. Following Sider, call these corresponding features structure. Structure comes in two varieties. First, there are the ontic features of the world that correspond to predicates and names (i.e. properties and individuals). The non-ontic variety is not as well understood, but arguably includes that which corresponds to quantifier and sentential operators (quantificational and intensional structure). Both kinds of structure are crucial for my account.

Yet criticism, skepticism, and outright confusion about structure, especially the non-ontic variety, is widespread. This is all perfectly understandable. New meta-

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1This notion of structure is distinct from the notion of structure found in the philosophy of science, e.g. Ladyman and Ross (2009).

2To be honest, I’m not 100% sure if Sider would agree with me here. He might think that all structure is non-ontic but that natural properties are in some sense co-extensive with the non-ontic structure associated with predicates. I take this to be functionally equivalent to my approach, or near enough so as to not matter.

3For a sampling of the different flavors, see: Donaldson (2015); Goldwater (2014); Schaffer (2014b); Warren (2016). See also Wilson (2014), especially Dogma 3.
physical posits should be handled with caution. The question is what to do to improve structure’s reputation as part of the metaphysician’s toolkit.

One popular method for introducing some new term is to define it using more familiar terminology. Anachronistically, I might introduce the modal operators ‘□’ and ‘◊’ via quantification over possible worlds in the style of Lewis (1968). Then, whenever someone asks what I mean by ‘□∃xFx’ I can give the appropriate translation. Similarly, I might introduce the notion of a duplicate by defining it in terms of shared perfectly natural properties.

One way to make structure respectable is to provide a similar sort of explanation. In §2.3.4 I mentioned an expanded version of folkloric Lewisian realism that posited a correspondence between expressions and natural properties. This realist might introduce metaphysical structure as follows. The world consists of individuals, properties, and objective facts of the matter about the naturalness of properties. The property greenness is more natural than the property grueness. According to the offered reduction, to say that the world is structured is to say that some properties are more natural than others. For instance, to say that the world is structured with respect to color is to say that some color properties are more natural than others. Similarly, to say that the world is structured with respect to quantification is to say that some existence properties are more natural than others. Because the methodology of metaphysics involves identifying and employing the ideology that correctly characterizes structure, we should strive to use expressions that have these natural properties as their meanings.

Nuances aside, there is nothing wrong with the folkloric reduction so far as intel-

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4I say ‘anachronistically’ because, historically, quantification over possible worlds came after modal operators. I find it really interesting that contemporary philosophers, myself included, are more familiar with possible worlds than with modal operators.

5The realist might, but need not, modify the Fregean approach to existence and understand existence properties as second-order properties like having an instance. See McDaniel (2013).
ligibility is concerned. The definiendum inherits the intelligibility of the definiens. If natural properties are intelligible, then structure, understood this way, is intelligible. So long as it serves a useful purpose, structure earns its place in the toolkit.

Yet I reject the folkloric reduction and any other reductive project. This is in part because I prefer an account of externalism that allows for correspondence to non-ontic features (more on this in chapter 4). But I also agree with Sider, who thinks that a global metaphysics that takes ‘structure’ as primitive is most attractive. One argument for this conclusion is that a metaphysics which takes ‘structure’ as primitive is highly unifying. Structure, according to Sider, underlies our understanding of (just to name a few things) intrinsicality, reference, induction, and substantivity. But this sort of unification only counts if structure is doing the heavy lifting. Suppose I introduce some new term, ‘genergy’. ‘Genergy’ partially unifies physics and biology. How? Well, genergy comes in two varieties. First, there is energy-genergy. Energy-genergy determines how much force something can apply. Second, there is gene-genergy. Gene-genergy (partially) determines which traits organisms display. Violà! Unification!

Genergy so defined is worthless. To be truly unifying, it must not be defined in terms of energy and gene. Electromagnetism, in contrast, is truly unifying. Insofar as we should prefer unifying theories, we should prefer a theory of primitive structure. Reduction is to be avoided even if it is in principle available.

Taking some notion as primitive is not that radical of a move. But my refusal to reduce structure has a substantial consequence. A theory that posits non-ontic structure defies an intuitively appealing picture of the world, what Sider (2011) labels ontologism. Ontologism “insists that fundamental metaphysical commitments be ontic,” (94). A theory that posits non-ontic structure rejects ontologism because it posits something of the world without saying anything about things in the world. As

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6See Sider (2011): 16
Sider puts it:

To say \( \mathcal{S} \) (and) is not to say something about an alleged object Conjunc-
ction. It is not to say anything about any thing at all. It is nevertheless to say something true, something objective, something about reality. Nowhere is it written in stone that all facts must be entity-involving. In Graham Nerlich’s phrase, “realism need not be ontic.” To be sure, the entity-based ideology of predicate logic is simple, beautiful, and well-behaved, and it’s best to stick to it whenever possible. But the realist about structure, it would seem, cannot live by predicate logic alone.  

In other words, we can make claims about the structure of the world that are true or false independently of the things in the world. Since ontology is about the things there are, structure falls outside of its purview. Structural truths are not tied to ontological truths.

Nerlich and Sider are not the only ones to realize that realism need not be ontic. Much of Henry Laycock’s work tries to make room for a picture of the world that goes beyond identifying and counting discrete things. He finds the presumption of ontologism perplexing and notes that “there would appear to be a common tendency within reflective thought to be influenced, and even gripped, by a conception of the world as intrinsically ‘divided’ into discrete bodies.” This tendency manifests itself as a demand that any expression be understood in explicitly singular terms.  

There are two senses in which a theory that posits non-ontic structure defies the tendency Laycock identifies. Distinguish between methodological ontologism and metaphysical ontologism. Methodological ontologism, as Sider puts it, claims that it’s “conceptually confused to think of a fundamental metaphysics as being given by anything other than a list of entities,” (94). But metaphysical ontologism admits the conceptual possibility of non-ontic metaphysics and instead claims that the correct
picture of the world is one that is entity-based (95). The objection that is the focus of this chapter is generated from a commitment to methodological ontologism and so in the remainder of the chapter my use of ‘ontologism’ should be understood as referring to the methodological variety. There is, of course, an equally interesting version of the objection that comes from metaphysical ontologism. (In chapter 4, I will give some arguments against metaphysical ontologism.) But it does not concern intelligibility and so is beyond the scope of this chapter.

3.3 The Objection from Ontologism

To help precisify the objection from ontologism, I will start with two instances of it in the literature. Theories that posit non-ontic structure reject ontologism by stating some claims about the world need not be concern some thing in the world. In his review of Writing the Book of the World, Eli Hirsch acknowledges this. But he struggles to properly understand it:

It seems as if Sider is trying to give us a form of Tractarian metaphysics (“language matches the structure of the world”) minus language-shaped facts. That’s a hard trick to pull off. The idea seems to be that truth is not enough, because the structure of our true sentences ought also to conform to “the structure of the world”, even though the world contains no structured items that correspond to the structured sentences. This is, for me, hard going. Sider’s “structure of the world” may seem to be intelligible only as something-we-know-not-what that plays the role of somehow imposing a metaphysical constraint on language beyond truth.

Hirsch’s confusion is understandable. In attempting to make sense of the notion of structure, Hirsch tries to identify what entity in the world makes structural claims true. But every candidate for this role (structured facts, structural items, etc.) is ruled out by Sider.

[^10]: Hirsch (2013): 712
Gabriele Contessa has a similar difficulty. He is not altogether opposed to structure. He is sympathetic to the idea that structure plays a role in determining the meaning of predicates like *being green* or *being a rabbit* and thereby avoiding the traditional issues of indeterminacy. But he denies that structure can be expanded to cover all linguistic expressions:

For example, take ‘either...or...’ and ‘it is not the case that’ in the sentence ‘Either every even number greater than two is the sum of two primes or it is not the case that every even number greater than two is the sum of two primes’. If their correct interpretation is classical, then that sentence expresses a tautology, for, on that interpretation, to assert that disjunction is to assert that at least one of its disjuncts is true and, since, on its classical interpretation, one of the disjuncts cannot be false unless the other one is true, the proposition expressed by that sentence must be true. If the correct interpretation of ‘either...or...’ and ‘it is not the case that’ is intuitionistic, however, to assert the above disjunction is to assert that there is a proof of at least one of the disjuncts and, since in this case (as well as other cases) this is not true, we are not in a position to assert that sentence. *But what in the world* could make one of these candidate meanings of ‘either...or...’ and ‘it is not the case that’ more eligible than the other (other than linguistic use, conventions, philosophical considerations or some combination of these and other factors, that is)?

As far as I can see, the answer is ‘Nothing!’[11]

As I understand them, both Hirsch and Contessa appeal to ontologism. They assume that any view which says there are some truths about the world that are not ultimately truths about things in the world is unintelligible. Because a theory that posits non-ontic structure does just this, the theory is unintelligible.

Rhetorical flourishes aside, I think the objection can be made more precise. And precision here is important. One issue is in specifying exactly when a sentence is “about things in the world” and when it is not. Though the distinction seems intuitive enough, some metaphysical theories are surprisingly difficult to sort along these lines.

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It will be useful to have some formal machinery to guide us through the jungle. An ontological sentence is a sentence that is “about things in the world,” that tries to characterize how some thing is or how some things are. What follows is an attempt to formally capture the notion of an ontological sentence:

- If S is of the form \( Fa_1 \ldots a_n \) (where a is a constant), then S is an ontological sentence.

This covers particularized sentences like ‘Widget is a cat.’ Clearly such a sentence is about what things in the world are like.

- If S is of the form \( \neg \phi \), then S is an ontological sentence iff \( \phi \) is an ontological sentence.

Intuitively, if something makes a claim about the world, the negation of that claim just makes the opposite claim about the world. So negation preserves being ontological.

- If S is of the form \( \phi \land \psi \), then S is an ontological sentence iff \( \phi \) is an ontological sentence and \( \psi \) is an ontological sentence.

I count a complex sentence as ontological just in case its components are ontological. In other words, an ontological sentence is completely about what things in the world are like. Being ontological is less like being ill-formed and more like being well-formed. If a well-formed sentence is conjoined with an ill-formed sentence the result is an ill-formed sentence, not a partially-well-formed sentence. Likewise, a sentence that has a non-ontological conjunct contains non-ontological content and so is itself non-ontological. Being ontological, then, is a “purity” status. Ontological sentences must be exclusively about things.

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12 In what follows, I assume a classical background logic. A free logic would likely produce different results.

13 Thanks to Alex Rausch and Geoff Hall for help in formalizing the notion of an ontological sentence.

14 Even nonsense claims like “The slithy tove did gyre and gymbol,” can be ontological so long as they have the right form. Such sentences do, after all, try to say something about things in the world. The slithy tove did not wyrmite – it did gyre and gymbol!
Since conjunction and negation are expressively adequate for propositional logic, there is no need to give constraints for disjunction, conditionals, etc. However, moving to first-order conditions requires introducing the notion of a *pseudo-ontological sentence*. Open sentences of the form $Fx$ are not, in a literal sense, about anything in the world. They are analogous to the sentence fragment ‘___walks’ in that they don’t assert anything at all. They are instead the raw material from which ontological statements are formed.

- If $S$ is of the form $Fx_1 \ldots x_n$ (where $x_1 \ldots x_n$ are variables), then $S$ is a pseudo-ontological sentence.
- If $S$ is of the form $\neg \phi$, then $S$ is a pseudo-ontological sentence iff $\phi$ is a pseudo-ontological sentence.
- If $S$ is of the form $\phi \land \psi$, then $S$ is a pseudo-ontological sentence iff $\phi$ is a pseudo-ontological sentence and $\psi$ is a pseudo-ontological sentence.

Now quantificational sentences can be checked by checking pseudo-ontological sentences:

- If $S$ is of the form $\exists x \phi$, then $S$ is an ontological sentence if either (i) $\phi$ is an ontological sentence, or (ii) $\phi$ is a pseudo-ontological sentence and $x$ occurs freely in $\phi$.\(^{15}\)

Sentences involving universal quantification can be checked by being translated, in the standard way, into existential sentences.

My definition of an ontological sentence allows for increased flexibility concerning what counts as ontological. An alternative way of defining ontological sentences takes both open sentences and closed sentences as ontological. I avoid this for the following reason. On the assumption that both closed *and* open sentences are ontological, it’s natural to say that a sentence of the form $\neg \exists x \phi$ is ontological just in case

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\(^{15}\)By this definition, the sentence $\exists x(x = y)$ is ontological despite containing a free variable. I’m genuinely ambivalent on whether or not this is a bad result. The sentence does seem to be saying *something* about $x$, even if it is in some sense incomplete.
\( \phi \) is ontological. However, this approach will sometimes preemptively rule against sentences containing extra ideology. Consider a theory that includes the standard modal operators ‘\( \Box \)’ and ‘\( \Diamond \)’. Many deny that some sentences with modal operators are ontological, namely those where an operator takes wide scope. But they think such sentences produce ontological sentences when bound by the appropriate variable – e.g. \( \exists x \Diamond Fx \). My definition of an ontological sentence makes room for such a position.

A sentence that satisfies the above definitions is a sentence that tries to characterize how some thing is or how some things are and is therefore an ontological sentence. A \textit{truth} is a sentence contained in a true theory. An \textit{ontological truth} is, of course, an ontological sentence that is also a truth.

Alternative kinds of quantification threaten to complicate the story. Above, I addressed only “ordinary” objectual quantification. But there are other forms of quantification, most saliently plural quantification and second-order quantification. Should such sentences count as ontological, as providing “a list of entities”? I say that they should not. Systems of quantification earn their merits individually. Unless there is good reason to do otherwise, different forms of quantification should be treated separately.

Furthermore, alternative forms of quantification seem to go against the list-conception of the world articulated by Armstrong and others. Take plural quantification. As I will discuss further in \( \S \ 3.5 \) one motivation for including plural quantification is to better formulate ordinary language claims that first-order quantification struggles with. Take the sentence “Igby, Juno, Milo, and Widget surround the catnip.” Someone might formalize this claim with the predicate ‘\( S \)’ which reads “\( \text{together surround } \)”. In first-order logic the English claim would be formalized as something like \( \exists a, b, c, d, x(Ia \land Jb \land Mc \land Wd \land Cx \land abcdSx) \).” First note that \( S \) would have to be variably polyadic to account for the fact that five cats are just
as capable of surrounding catnip as four. But also note that the sentence “Igby, Juno, Milo, and Widget surround the catnip,” and the sentence “Fatso, Maru, Spot, Tardar Sauce, and Tibbles surround the catnip,” entail “Some cats surround the catnip.” It’s difficult to see how this generic claim can be formulated in first-order logic using a variably polyadic predicate. And it’s especially difficult to see how it can be formulated in a way that preserves the apparent logical relations between the claims.\footnote{See McKay (2006): 19–22.}

The point is not that first-order logic is entirely incapable of formalizing these claims. The point is that it’s not obvious that it can. Plurally quantified sentences at least \textit{seem} to express something more than what is expressed by singularly quantified sentences. Plurally quantified sentences \textit{seem} to do more than just expand the list of entities. So as to not prematurely settle the matter, the initial definition of an ontological sentence should remain neutral. Thus, only first-order objectual quantifiers contribute (at this stage) to a sentence being ontological.\footnote{Quantifier pluralist positions like that of McDaniel (2009) typically posit quantifiers that behave like ordinary quantification. For that reason, I consider pluralist quantifiers to be relevantly equivalent to ordinary objectual quantifiers.}

Ontologism claims that everything bottoms out in ontology. There are several different ways we can understand this claim. I list them in decreasing strength:

**Eliminative Ontologism:** All truths just are ontological truths.

**Reductive Ontologism:** All truths are wholly grounded in ontological truths.

**Dependency Ontologism:** All truths are partially grounded in ontological truths.

**Truthmaker Ontologism:** All truths have a truthmaker.

**Intentional Ontologism** All truths are about the same things as ontological truths.

**Supervenience Ontologism:** All truths supervene on ontological truths.

**Logical Ontologism:** All truths entail ontological truths.
Some versions of ontologism are quite difficult to defend. Eliminative ontologism, for example, suggests that a total theory will restrict itself to first-order ideology. Those who are committed to sentential operators, plural quantification, or second-order quantification will want to deny this. So will those who think there are “purely logical” truths without quantification or predicates, like ‘\(p \lor \neg p\)’. On the other hand, logical ontologism seems true but uninteresting. If there are ontological truths that are logical necessities, then all sentences entail such ontological truths. Suppose that \(\forall x (Fx \rightarrow \neg(\neg Fx))\) produces a logical truth for all substitutions of F. Every sentence entails each instance of the schema. So every truth entails them as well. So logical ontologism is true. Such a claim doesn’t seem to capture anything important about how the world is, though, so it is not an interesting version of ontologism.

I suggest that the objection from ontologism employ the supervenience claim. Since supervenience is a relatively weak relation, an argument that uses it as a premise is more compelling than an argument that uses something stronger. Yet supervenience ontologism also articulates an important claim about how the world is, namely that the ontological domain is sufficient to “bring about” everything else in the world.

(Before things get stale, let me quickly address an argument in favor of supervenience ontologism that I won’t be able to address later. Consider some non-ontological sentence S and the proposition p it expresses. The sentence ‘p is true’ is on my account ontological. In addition, this sentence is true just in case S is true. So supervenience ontologism is true. Denying the existence of propositions won’t avoid the problem. A weaker version of this argument can be run using S itself. I think this argument works, more-or-less, and that supervenience ontologism as stated is for this reason true. But supervenience ontologism can be reformulated in a way that avoids the argument without losing the substance of what I say. One such reformulation redefines ontological sentences in a way that excludes these problematic cases. Another
reformulation retreats to a more nuanced view, one where the supervenience base is an important subclass of all ontological truths. I’m inclined toward the second reformulation, since sentences about the truth of propositions (or sentences) really do seem to assert something about how the world is. Furthermore, most would agree that propositions, sentences, and the like are not as ontologically significant as substances and (natural) properties. These representational entities are just along for the ride.[18]

There are many different supervenience relations. Supervenience is also usually taken to hold between properties. So what do I mean by “All truths supervene on ontological truths”? The intuitive idea here is the same as that behind other supervenience theses: there cannot be variation in truth without variation in ontological truth. I’d rather not specify truth-supervenience in terms of properties. But if the intuitive idea isn’t enough, I hope the following is. Suppose being a truth and being an ontological sentence are properties of sentences, and suppose being an ontological truth is a conjunctive property of those two.[19] Then we can define supervenience ontologism as:

**Supervenience Ontologism:** For any worlds \( w_1 \) and \( w_2 \), every isomorphism between \( w_1 \) and \( w_2 \) that preserves being an ontological truth is also an isomorphism that preserves being a truth.[20]

In other words, the property being a truth strongly globally supervenes on the property being an ontological truth. The objection claims that a theory that posits nonontic structure violates Supervenience Ontologism. It entails:

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[18] Thanks to Jeff Speaks here, though he might disagree with much of what I said.

[19] I’m cheating here by assuming the existence and representational qualities of sentences are unproblematically secured. This is a good place to replace talk of sentences with talk of propositions.

[20] A preserving isomorphism is just an isomorphism that maps objects that have a certain property only onto objects that also have that property. My formulation of Supervenience Ontologism is based on definition (3’) in Stalnaker (1996). See Sider (1999) for an alternative though equivalent definition of strong global supervenience (see his footnote 10).
Supervenience Denial: For some worlds $w_1$ and $w_2$, some isomorphism between $w_1$ and $w_2$ that preserves being an ontological truth does not preserve being a truth.

In other words, there's at least one pair of possible worlds where they vary with respect to their truths without also varying with respect to their ontological truths. (What these are will depend on the particular first-order metaphysics adopted. I'll return to this shortly.)

One final point about my terminology. I am using the proposed definition of an ontological sentence in part because it excludes sentences that pose merely technical problems. Assume that there is at least one necessarily true ontological sentence – assume that it is the claim that something exists, ‘$\exists x (x = x)$’. Now take any purportedly non-ontological sentence $\phi$. $\phi$ is true just in case ‘$\exists x ((x = x) \land \phi)$’ is true. If this complex sentence is included in the class of ontological sentences then supervenience ontologism becomes trivially true. But the recursive account I provide rightly excludes such sentences. So supervenience remains an open question.\(^{21}\)

Here's how all the terminology in this section fits together. The objection from ontologism starts with the claim that everything bottoms out in ontology. I listed several different versions of this claim and settled on supervenience ontologism, the claim that all truths supervene on ontological truths, as the official formulation of the ontologist’s picture of the world. The denial of supervenience, according to the ontologist, is therefore unintelligible. The more precise objection then states that a theory which posits non-ontic structure structure violates supervenience ontologism. So a theory of non-ontic structure is unintelligible.

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\(^{21}\)Thanks to Mike Rea for discussion on this point. There’s a further issue about world-essential ontological truths like “$w_1$ is actual.” I take it, though, that it is intelligible for there to be no such truths and so I postpone the issue to chapter 4.
3.4 Defining Intelligibility

The objection from ontologism claims that a theory of non-ontic structure is unintelligible because it entails some claims are objectively about the world without supervening on claims about things in the world. Despite the rhetoric of those who make this objection, it’s not clear what the upshot is. In this section, I characterize a few different accounts of what it takes to be intelligible and explore their implications for structure. I argue that a sociological account is the only one that might show structure to be a distinctively problematic posit. Thus, it is the only account that gives the objection from ontologism any dialectical efficacy.

To show this, I first develop a case in which someone employs the concept of non-ontic structure to characterize a contingent feature of the world. With this example in hand, I go through the different accounts of intelligibility and show to what extent they find it unintelligible. There are many other cases available, however, so not much rests on this particular case working the way I suggest it does.

Imagine an A-theory presentist who posits metaphysical structure. As an A-theorist, she believes that the world is temporally oriented, that there is some objective difference between the past, present, and future. Any theory that reduces or eliminates this difference is, by her lights, mistaken. She might describe her position as follows:

Given all the scientific, phenomenological, and philosophical evidence we have, we are justified in believing that our world is one where time “flows”. To give weight to this flowing metaphor, I hold that the world exhibits non-ontic temporal structure. But I admit that it didn’t have to be this way. In fact, I take my position to be contingent. The world could have had no temporal structure and been in a quite literal sense a static universe. The temporal structure of the world could have been different. That is, there is a world exactly like ours in terms of what presently exists and what is categorically true of those things. But this other world is timeless. There are no positive truths about its past or about its future.

To get a clear violation of supervenience ontologism, we’ll have to make an assumption
on the presentist’s behalf. We will have to assume that there are no “temporal entities” – no abstract times, facts, propositions, or properties that “tensed” worlds have that static worlds do not. This is less controversial than it might seem at first. The presentist here uses tense operators to characterize the temporal nature of the world. She thereby posits some non-ontic temporal structure that, plausibly, fills the role temporal entities ordinarily occupy. The presentist denies that there is such a property as being in the past and instead appeals to the past temporal structure of the world. Likewise, the presentist denies that facts and propositions are intrinsically tensed and analyzes their apparent tense in terms of the temporal structure of the world.\(^{22}\)

If what the presentist says is correct, then some possible worlds differ in their temporal structure. Among these worlds we can take a pair that are present duplicates – that have duplicate temporal segments located at the present moment. These two worlds agree on all matters ontological; whatever exists now in the one world exists now in the other. An ontology that accurately characterizes one world will also accurately characterize the other world. But the worlds are structurally distinct. Since one exhibits temporal structure and the other does not, an ideology that accurately characterizes one world will fail to accurately characterize the other. Thus, according to this non-ontic presentist, supervenience ontologism is false.

I now turn to different standards of intelligibility and how they judge non-ontic structure.

3.4.1 Intelligibility as Internal Consistency

Someone might take a claim to be unintelligible just in case it is internally inconsistent. To illustrate, consider the following passage from Peter van Inwagen. Here,\(^ {22}\) The presentist’s approach is analogous to a soft B-theory detenser. See Zimmerman (2005): 411.
he is discussing a theory that posits temporal parts (what he is calling a Lewis-part). While everything is a temporal part of itself, nothing could have a temporal proper part.

Since I understand all these words, I understand ‘Lewis-part’ and know what Lewis-parts are. In a way. In the same way as the way in which I should understand talk of “propertyless objects” if I were told that ‘propertyless object’ meant ‘object of which nothing is true’; in the same way as that in which I should understand talk of “two-dimensional cups” if I were told that ‘two-dimensional cup’ meant ‘cup that lies entirely in a plane’. These phrases would not be what one might call “semantical nonsense” for me; they would not be like ‘abra-cadabara’ or ‘machine that projects beams of porous light’ or ‘Das Nichts nichtet’. But I should hardly care to say that I understood what someone was talking about (even if it were he who had given me these definitions) who talked of propertyless objects or two-dimensional cups, and who, moreover, talked of them in a way that suggested that he supposed there were such things. For I cannot see how there could be any such things. In fact, I think I can see clearly and distinctly why there could not possibly be any propertyless objects or two-dimensional cups (so defined). And this is very nearly the position I am in with respect to Lewis-parts.

Clearly, van Inwagen thinks that any theory of temporal parts like the one Lewis articulates is necessary false. But the problem isn’t merely one of impossibility. Van Inwagen would agree that a theory denying the existence of God is not in the same boat as Lewis’ theory of temporal parthood despite them both being, by his lights, necessarily false. The problem is that Lewis’ theory seems to refute itself by positing something internally inconsistent. Cups are rounded objects, usually with handles, and used for containing liquid. Cups can’t be cups if they are two-dimensional. And so a theory that posits two-dimensional cups can be shown to be necessarily false merely by noting that it posits an object with incompatible properties. Likewise, objects are (according to van Inwagen) things of which something is true. No extensive

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23 van Inwagen (2000): 445

24 I’m out of my element, but presumably van Inwagen does not think that the denial of the existence of God is internally inconsistent. See van Inwagen (2012).
work is required to know there are no propertyless objects. *Mutatis mutandis* for temporal parts.

Someone might say that the non-ontic presentist has an internally inconsistent theory. This is because she posits objective and modally flexible temporal structure that is not an object. But, so the objection goes, that’s impossible. For something to be objective just is for it to be an object of the mind-independent world. Furthermore, for something to be modally flexible just is for it to exist in another possible world and to instantiate, in that world, different properties. “Non-objects” can’t instantiate properties at all, let alone instantiate different properties in different worlds. The A-theory presentist posits something with incompatible features. Thus, her theory is unintelligible. Likewise, on this account of intelligibility, any theory that posits non-ontic structure is unintelligible.

Despite its initial plausibility, a proponent of the objection from ontologism should not buy into the internal-consistency account of intelligibility. First, it destroys the distinction between methodological ontologism and metaphysical ontologism, a distinction that is important insofar as it gives the objection its distinctive bite. The A-theory presentist knowingly flouts ontologism when she develops her theory. The argument establishing that her theory is internally inconsistent rests on a prior commitment to ontologism (or something quite like it). Otherwise, why think that only objects can be objective and modally flexible?\(^{25}\)

Second, the internal consistency account of intelligibility should be avoided because it says too much. Many disputes in metaphysics involve theories with conflicting presuppositions. Take, for instance, the dispute between compatibilists and libertari-

\[^{25}\text{A similar diagnosis helpfully clarifies van Inwagen’s argument against temporal parts. In the quoted passage, he registers a commitment to what can be called methodological persistence – that what it is to be a persisting object is in part for it to be modally flexible. But temporal parts are not flexible in this way. So the theory is unintelligible. Someone committed to metaphysical persistence thinks that temporal parts are in fact modally flexible but admits that it is in some sense an open question. Thus, she thinks a theory of temporal parts is necessarily false but intelligible.}\]
ians about free will. According to libertarians, what it is for an agent to act freely is (in part) for her action to not be causally determined.\textsuperscript{26} Compatibilism has no such presupposition.\textsuperscript{27} When the compatibilist says, “An agent can act freely even if her action is causally determined,” she says something that, from the vantage point of the libertarian, is necessarily false. But the libertarian knows that the compatibilist has a different understanding of what it is for an agent to act freely and so does not declare the compatibilist’s view unintelligible. And the compatibilist returns the favor. A dispute can involve two views that have crucially different presuppositions. It would be infelicitous to judge one of the views unintelligible because of this disagreement.

To be sure, the internal consistency account of intelligibility allows the objection to stick. But its force is in this case not terribly impressive. Few think the free will dispute should be dismissed because it involves an unintelligible position. At any rate, the objection understood this way fails to show that there is anything distinctively wrong with structure.

3.4.2 Intelligibility as Definability

Another standard by which to measure intelligibility is in relation to already intelligible terminology. In order for some claim to be intelligible, it must be equivalent to a claim already taken to be intelligible. That is, where $\phi$ is an arbitrary sentence employing some new posit $\alpha$, there must a sentence $\psi$ free of $\alpha$ such that $\psi$ is intelligible and $\phi$ is true just in case $\psi$ is true. The intelligibility of $\psi$ requires, at a minimum, that it employ already accepted terminology.

The definitional account is intuitive and suggest a clean version of the objection. ‘Structure’, as a term, is best understood not in relation to other terminology. Sider emphasizes this when he says he wants to, “use [structure] as the foundation of

\begin{itemize}
  \item \textsuperscript{26}See van Inwagen (1975)
  \item \textsuperscript{27}See Lewis (1981)
\end{itemize}
'metametaphysics', and reconceptualize metaphysics in terms of it,” (6). ‘Structure’ is intentionally not given definitional constraints.

Consider, again, the A-theorist presentist. She claims that the world has non-ontic temporal structure. But her claim is not equivalent to any claim about the instantiation of A-theoretic properties, or relations holding between abstract times – otherwise, her claim wouldn’t be about non-ontic structure. If intelligibility is definability, her theory comes out as unintelligible. So this account of intelligibility makes the objection stick.

It also makes the objection untenable. Definitions are useful in securing the intelligibility of some new term. But it would be unreasonable to demand that every expression be defined non-circularly. The ultimate consequence of such a demand is that everything is unintelligible. Something, at the end of the day, must be taken as primitive.

A more promising standard is one that requires any new term to be defined by a chain of definitions that ends with a sentence that uses only natural language expressions. This constraint still successfully targets structure. The presentist might say that the tense operator ‘P’ carves the world closer to its joints than does the predicate ‘is earlier than’, or that the world is tensed. But such characterizations are not truly definitions and are more like illustrative metaphors. The presentist’s theory still fails to meet this weaker definability standard.

Nevertheless, an objection based on the natural language standard will still show too much. Many technical terms in metaphysics resist being defined with natural language. Some plausible examples are: ‘substance’, ‘essence’, ‘possible world’, so-called tenseless verbs, and temporal parthood relations. The objection from ontologism is

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28See the discussion of Chisholm-style definitions in van Inwagen (2014a): 25. I set aside the difficult question of what constitutes natural language as such and what constitutes so to speak unnatural or artificial language. I think the question raises many interesting issues, but ones that do not impact the dialectic of this chapter.
no more effective against theories that use a notion of non-ontic structure than against theories that use these other notions. To be sure, some metaphysicians are happy to declare them unintelligible as well. But many more are not. Many acknowledge that they can come to use primitive notions that resist definition in natural language terms, even though a full understanding of these terms requires at times some patience and hard work. Again, it turns out that non-ontic structure faces no special problem of intelligibility.

Furthermore, technical terms from other domains that are nearly indispensable for metaphysics also resist natural language definitions. Set theory cannot be explained through natural language despite its otherwise praiseworthy clarity. Particle physics can at best be metaphorically characterized through natural language. It’s not obvious why metaphysical terms should be held to a higher standard than scientific terms. Someone might argue that scientific terms are linked, albeit at times indirectly, to empirical observation. That might be true. But so are metaphysical terms. When I observe my cat walk across the room and into her nap-box, I observe (according to the B-theorist) a series of time slices all connected by the temporal parthood relation. Of course there are other theories of time whereby that is false, and it is quite likely that no empirical observation can differentiate between these rival theories. But given that the B-theory is true, time slices are no less linked to observation than are quarks.

3.4.3 Intelligibility as Graspability

The first two accounts of intelligibility are often implicitly used when discussing metaphysical theories. But the fact that they have little to do with our mental lives might strike some as strange. Surely, they might say, intelligibility has to do with how we think. Take set theory. Sets are sui generis individuals and sentences referring to them resist paraphrase. But this is unproblematic because they are so readily
grasped. The notion of a set is intelligible to anyone who considers it even briefly. Along these lines, someone might claim that any plausible account of intelligibility must be sensitive to the mental lives of agents. Call this the graspability account of intelligibility.

Graspability, if it is to be of use to the ontologist, cannot be a purely phenomenological notion. Such an approach leads to a dialectical stalemate. Suppose someone objects because she fails to grasp non-ontic structure. But, short of her having a privileged perspective, she cannot speak on behalf of others. It would be disingenuous to report this failure to grasp to philosophers (like Sider) who, in virtue of their work, really do seem to grasp it. At best, the objector can say that some people find non-ontic structure unintelligible. Yet it is unclear how much this failure should move the proponent of structure.

Graspability need not be understood as a pure phenomenology notion. It can instead be developed in terms of the conceptual capacities of agents. On this account something is intelligible insofar as it is conceivable. The objection continues with the claim that structure itself, or the denial of supervenience ontologism more generally, is inconceivable. Therefore, a theory that posits non-ontic structure is unintelligible.

Of course, conceivability is itself a multifaceted notion. Following Chalmers (2002), we can distinguish between different kinds of conceivability along three axes: prima facie/ideal, positive/negative, and primary/secondary.

Working backwards, some claim S is primarily conceivable for someone when she finds it conceivable that S is actually true; S is secondarily conceivable for someone when she finds it conceivable that S is true in some metaphysically possible world. This axis of conceivability (arguably) latches onto the distinction between epistemic possibility and metaphysical possibility.

Some claim S is positively conceivable for someone when she is able to imagine a
specific scenario where S is true\textsuperscript{29} Some claim S is negatively conceivable for someone when she is not able to rule out a scenario where S is true. (What constitutes ruling something out will depend on the context.)

Finally, some claim S is \textit{prima facie} conceivable for someone when she finds it conceivable after some short period of reflection. S is ideally conceivable for someone when she finds it conceivable after ideal rational reflection. As above with the notion of ruling out, detailing what it takes to “find S conceivable” in some context (ideal or otherwise) requires us to identify what other constraints are in effect.

Given that the three distinctions above generate eight coarse-grained types of conceivability and given that there are many more fine-grained distinctions within those, the variety of conceivability-based intelligibility arguments is staggering. I cannot hope to adequately respond to every version. But, thankfully, many varieties won’t generate a plausible version of the objection from ontologism\textsuperscript{30} I will instead respond to what is, in my mind, the best conceivability-based version of the objection. Perhaps I am mistaken and there is a better version. But that is a case the ontologist has to make.

The type of conceivability best suited to the task at hand – best in that it makes sense of how the objection has been articulated and in that it makes the objection stick – is a form of positive conceivability. On this approach, the objector expresses

29What it takes to “imagine a specific scenario” will vary. It might be understood as creating a perceptual image in the mind or, instead, as grouping a consistent set of propositions. I do not think much hangs on this for my purposes and so in what follows I ignore the differences.

30Varieties of conceivability that turn on epistemic notions are clearly question begging. For instance, one notion of conceivability states that an individual considers whether or not some statement is consistent with what she believes about the actual world. Clearly, the objection from ontologism would fail if it was nothing more than an assertion that a theory of structure is inconsistent with what the objector believes. Likewise, a notion of conceivability that turns on knowledge would simply presuppose the falsity of structure. Many forms of “ruling out” with negative conceivability will also be ineffective. The objection would be quite potent if a theory of non-ontic structure could be shown \textit{a priori} to be contradictory. This might be done by showing the theory is tacitly committed to ontologism. But no such argument yet exists. And the claim that such an argument could be found under ideal circumstances is, absent some really good explanation, unconvincing.
an inability to imagine a world that shows a theory of non-ontic structure to be true. An effective explanation of this inability is that the objector is unable to conceive of the modal space required to verify the entailments of the theory. More specifically, she is unable to see how two worlds can differ in their structure but not differ in what things there are or what those things are like.

This objection has some force if all the proponent of structure can give is some vague guarantee that worlds can differ in this way. But the non-ontic presentist can do more than that. She can give an argument to justify her belief that two worlds can vary in temporal structure. Plausibly, the physical structure of the world is not metaphysically necessary. The true theory of physics could have been very different from what it in fact is. This does not merely mean that there could have been different fundamental particles or that the spatial geometry could have been different. It also means that the temporal nature of the world could vary. If that’s right, then it’s plausible to think that a timeless world is metaphysically possible. Barring some strange necessary connections, this is enough to guarantee the pairs of presently-identical worlds postulated by the non-ontic presentist.

Of course, temporal structure might be metaphysically necessary. But the burden of proof is now on the ontologist. And the burden increases as more non-ontic views are more fully articulated. In § 3.5 I develop three more cases that reject ontologism. The ontologist who refuses to acknowledge these as genuine has to explain how they fail to meet the standard of conceivability.

3.4.4 Intelligibility as Sociological Familiarity

While the notions of intelligibility I have discussed so far are viable in their own right, none are suitable for the objection from ontologism. Their deficiency is in trying to hold structure to a higher standard than other posits. A notion of intelligibility that would give the objection weight must be capable of differentiating structure from
other primitive posits by identifying in what sense it is so uniquely problematic.

The best account for this purpose is one that is sociological. Such an account takes into consideration the landscape of metaphysics to determine which positions are seen by the community to be coherent. An unintelligible view, on the sociological account, is a view that is so removed from the conversation so as to seem alien.

There are a host of problems with the sociological account. For starters, it presupposes that there is some way of discerning a larger community from the sundry philosophers that are for one reason or another called “metaphysicians.” It also abandons any robustly objective sense of intelligibility. Unless coupled with radical and implausible views about the progression of philosophy, the sociological account allows for a metaphysical posit to be intelligible at one time and unintelligible at another. More worrisome, it allows for two distinct metaphysical communities to reasonably disagree on what is intelligible.\(^3\)

Nevertheless, the sociological account of intelligibility is well-suited for the objection from ontologism. It highlights just what strikes so many as bizarre. The structure of the world is partially contingent in a way that goes beyond what is in the world and how those things are. So a theory of structure is inconsistent with ontologism. But, so the objection goes, that is unintelligible. It is a bedrock assumption of contemporary metaphysics that the world is nothing over and above its ontology. Ontology is, after all, the study of being. And the study of being is just the study of beings. Many metaphysicians disagree, of course, about what the world contains. It might be, as Hobbes claims, nothing but corporeal substances. Or it might contain universals and their exemplifying substances. Or it might be nothing but the spatio-temporal instantiations of natural properties. But every view on the table is one where the world is exhausted by a (perhaps intricately organized) list of

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\(^3\)If we take sociological intelligibility at face value, this has already happened. The terminology employed by medieval scholastics is widely regarded today as unintelligible. Presumably, though, the scholastics weren’t spouting literal nonsense. Thanks to Mike Rea for the suggestion.
things. Any view that suggests there is something about the world beyond such a list is simply confused. Or so the objection goes.

I think this is the best version of the objection from ontologism. It highlights how radical a theory that posits non-ontic structure truly is. It claims that structure is incompatible with our most fundamental understanding of what the world is like, an understanding that is allegedly found in all extant metaphysical theories.

3.5 Intelligibility by Way of Analogy

Now the objection is precise enough to be evaluated. And here’s the evaluation: the objection doesn’t stick. This is because ‘structure’ is sufficiently similar to other notions that we already take to be intelligible and demonstrate a reasonable ability to manipulate. More precisely, we already acknowledge theories that make a distinction between ontological truths and non-ontological truths. If they are intelligible then a theory of non-ontic structure is as well.

There have been many smart people who have developed theories that seem to reject ontologism. Sometimes their theories are taken seriously. Insofar as the sociological account of intelligibility is concerned, we should be hesitant to quickly dismiss these reasonably well-regarded views. And our hesitancy should grow as the variety of views grows. In this section I discuss three theories (plural quantification, modal actualism, and stuff ontology) that reject ontologism. I suspect that there are many others out there. But these three examples should be enough to show that ontologism isn’t the unquestionable dogma it originally seemed to be. Since consistency with ontologism is not a prerequisite for intelligibility, and since the alleged unintelligibility of a theory of non-ontic structure stems from its rejection of ontologism, such a theory is in fact intelligible. The objection from ontologism fails.

One final point before I discuss the three cases. I take it that on the sociological account the intelligibility of a position that denies ontologism is somewhat indepen-
dent of its precise formulation. I see no reason, for instance, for someone to find a
theory that denies supervenience ontologism unintelligible but not find a theory that
denies dependency ontologism – the view that all truths are grounded in ontologi-
cal truths – unintelligible. The former can be explicated in terms of the latter plus
some supplemental modal notions that are (presumably) intelligible. There might be
very good reasons to think that one version is true but not the other. But here I
restrict myself to the more modest goal of arguing for the sociological intelligibility
of structure.

In § 3.3 I gave a first-order account of what is ontological. But many will want to
include additional ideology into their theories. It is an open question which sentences
employing the new ideology are ontological and which are not. One useful heuristic for
discerning between the two, though, is to determine if there is an available translation
that all parties would be willing to accept that generates only ontological sentences.
If there is one, then sentences involving the new ideology are themselves ontological.

A contentious case comes from plural quantification. Consider the sentence:
“Some individuals admire only one another.” This natural language sentence can
be regimented into plural quantification as:

$$\exists x. \forall y. \forall z (\text{If } y \text{ is among the } x \text{ s and } y \text{ admires } z, \text{ then } z \text{ is among the } x \text{ s and } z \neq y)$$

Some, like Quine (1982) and Resnik (1988), would translate this sentence into one
with ordinary first-order quantification over sets:

$$\exists S. \forall y. \forall z (\text{If } y \in S \text{ and } y \text{ admires } z, \text{ then } z \in S \text{ and } z \neq y)$$

Others would reject this translation. Interestingly, one reason commonly given for

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33 I use this instead of the standard Geach-Kaplan sentence for simplicity’s sake.

34 Or, if not sets, then over some other “aggregative” entity.
rejecting the translation is that the translation changes the topic. The sentence ‘Some individuals admire only one another’ is about the individuals, not about the set of those individuals. As Thomas McKay puts it, “[such] approaches distort the facts about the true subjects of predication... The fact that some individuals are surrounding a building does not semantically imply that some single individual (of any kind) surrounds the building.”35 In other words, plurally quantified truths are truths about things, but not truths about a particular thing.

This objection to the set-translation suggests that some proponents of irreducible plural quantification reject intentional ontologism. They think that no first-order sentence adequately captures the meaning of a plural sentence. Now, philosophers might disagree on the upshot of the difference in meaning. Someone might take it to suggest that the same world can be described in two distinct yet independently adequate ways. For her, the fact that plural sentences are not reducible to first-order sentences says very little about how the world itself is. In contrast, someone might take the first-order inadequacy to indicate that plural sentences are uniquely suited to characterize some aspects of the world. This more serious pluralist thinks that some metaphysical difference undergirds the difference between plural and first-order quantification.

Given that primitive plural quantification is taken to be intelligible, we have an example of a dispute in philosophy where all parties take the rejection of ontologism seriously.

But perhaps there are good reasons to consider plural quantification properly ontological. Modality offers a case that some take to reject ontologism. The sentence:

\[ \square \forall y \exists x (x = y) \]

is *prima facie* not ontological because the modal operator takes wide-scope. Many

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35 McKay (2006): 22
metaphysicians, though, would be happy to translate this sentence into one that eliminates the modal operator:

$$∀P(\text{If } P \text{ is a possible world, then according to } P, ∀y∃x(x = y))$$

This sentence is ontological. Yet some reject translations like this. Arthur Prior, for instance, eschews talk of possible worlds and takes modal expressions as primitive. In Prior and Fine (1977), Kit Fine calls this view modal actualism and is inclined to endorse it as well. They both are also inclined to endorse the temporal analogue of modal actualism, where sentences employing tense operators are not to be translated into quantification over instants. Prior says that, “tense logic is for me, if I may use the phrase, metaphysically fundamental, and not just an artificially torn-off fragment of the first-order theory of the earlier-later relation,” (37). What Prior means by this is hard to say. Yet it seems clear that he is rejecting some form of ontologism. Given how reticent he is to include abstract times into his ontology and given that he is inclined to think that only present objects exist, he may even be taken to reject supervenience ontologism. Insofar as Prior’s position is intelligible, ontologism is not mandatory.

Now consider theories that distinguish between things and stuff. The category of things includes: this football, the coffee mug, and my cat Widget. The category of stuff (according to some) includes: the air in the football, the coffee in the mug, and the matter that constitutes my cat Widget. The distinction itself is supposed to be primitive but there are some strategies we can employ to differentiate between things and stuff. First, things are typically denoted by count nouns and can be in principle individuated and thereby enumerated; stuff is typically denoted by mass.

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36 This translation should be acceptable to both modal realists like Lewis (1986) and ersatzers like Plantinga (1974) and van Inwagen (1986). Modal realists can understand the sentence in mereological terms. Ersatzers can understand the sentence in whatever truth-invoking terms they prefer. For ease of exposition, I use the locution ‘according to P’ to dodge the in/at distinction.

37 For more, see Prior and Fine (1977), especially chapter 6 and the postscript.
nouns and cannot be counted – instead of asking “How many?” we ask “How much?”

Along similar lines, quantification over things is expressed using terms like ‘every’ and ‘many’. Quantification over stuff is expressed using terms like ‘all of’ and ‘so much’.

Markosian (2004, 2015) identifies three views about the relationship between things and stuff. According to the Thing Ontology, the most basic facts of the world are facts about things; stuff talk can be translated into thing talk. According to the Stuff Ontology, the most basic facts of the world are about stuff, and it is instead thing talk that can be eliminated. According to the Mixed Ontology, the most basic facts of the world include both thing facts and stuff facts; neither notion can be eliminated from our vocabulary without detracting from the accuracy of our descriptions.

As I see it, both the Stuff Ontology and the Mixed Ontology deny some version of ontologism. Markosian himself endorses the Mixed Ontology. Although he thinks facts about stuff supervene on facts about things, he also thinks facts about things supervene on facts about stuff. This suggests that he denies both intentional ontologism and reductive ontologism. For similar reasons, McKay (2015) also denies ontologism about stuff.

Whether or not stuff-truths are ontological depends on how we formulate expressions about stuff in our theory. Clearly, there are quantificational truths about stuff. For example:

The Black and Tan I am drinking has two layers: a layer of Guinness stout and a layer of Harp lager.

seems perfectly intelligible and, on a good day, true. But should quantification over stuff employ the same quantifier as quantification over things, or should it employ a

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38 For more on the differences between things and stuff, see Laycock (1979). For comparison, see Cartwright (1979) and Zimmerman (1995).
unique quantifier as (I’ve suggested) plural quantification does? Markosian prefers to formulate stuff-truths using the ordinary quantifier. He would formulate the Black and Tan sentence as:

$$\exists x \exists s_1 \exists s_2 \exists s_3 (x \text{ is a Black and Tan that I am drinking, } s_1 \text{ is the liquid that constitutes } x, s_2 \text{ is a subportion of } s_1 \text{ and is a portion of Guinness, } s_3 \text{ is a subportion of } s_1 \text{ and is a portion of Harp, and } s_2 \text{ is layered over } s_3)$$

Formulated like this, the Black and Tan sentence counts as ontological. Markosian is not altogether opposed to formulating stuff-truths with a special-purpose quantifier, though. Using the symbol ‘$H$’ to express stuff-quantification we could formulate the Black and Tan sentence as:

$$\exists x Hs_1 Hs_2 Hs_3 (x \text{ is a Black and Tan that I am drinking, } s_1 \text{ is the liquid that constitutes } x, s_2 \text{ is a subportion of } s_1 \text{ and is a portion of Guinness, } s_3 \text{ is a subportion of } s_1 \text{ and is a portion of Harp, and } s_2 \text{ is layered over } s_3)$$

where ‘$Hs_1$’ is more felicitously expressed as “Some $s_1$ stuff is such that…” This is not itself a non-ontological sentence because the quantification over the Black and Tan takes wide scope. Nevertheless there are non-ontological sentences like ‘$Hs_1 Hs_2 (s_2 \text{ is a subportion of } s_1)$’. Plausibly, then, there can be variation in facts about stuff without variation in facts about things. So some theories that posit stuff are inconsistent with ontologism.

In this section, I’ve presented three views in metaphysics that deny some version of ontologism. These views are often regarded as intelligible. According to the sociological account of intelligibility, a view is unintelligible when it wildly deviates

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39 For the record, Markosian also says that many metaphysicians are “happy with the idea of special plural quantifiers,” Markosian (2015): 685.

40 For what it’s worth, I think Markosian is mistaken to think that stuff-truths should be represented with the same quantifier used to represent thing-truths. This is because stuff-quantification varies axiomatically from thing-quantification. Following McDaniel (2010b), this is good reason to think that the expressions are analogous at best. See, also, Laycock (2006), chapter 4.
from accepted doctrine. Many do not reject these three views because the views reject ontologism (though to be sure some do). Thus, on the sociological account the denial of ontologism is intelligible. That a theory of non-ontic structure rejects ontologism is not an issue. Structure might be problematic for other reasons. But it is at least in this sense intelligible.

As a final note, there seem to be other views less obviously counted as metaphysical that nevertheless reject ontologism, though I am less qualified to identify them as such. Putnam (2004) endorses a view on which some ethical truths are objective but not descriptive. For instance, the claim “Terrorism is criminal,” is, according to Putnam, true despite not being about any thing in the world.\footnote{See Putnam (2004), Lecture 4, 72-73 and 77-78.} Certain theories of physics do not mesh well with a neo-Quinean conception of ontology. As far as I understand, some interpretations of quantum field theory violate standard assumptions about the individuation of objects. While arguments are given against such interpretations, they are recognized as legitimate contenders.\footnote{See Dorato and Morganti (2013); French (1989); French and Krause (2006); Howard et al. (2011).} And some versions of ontic structural realism deny the existence of all entities.\footnote{See Ladyman (1998); Ladyman and Ross (2009). But see Chakravarty (1998) for an argument against OSR that parallels some of what is said against metaphysical structure.}

3.6 Conclusion

In this chapter, I’ve attempted to identify the most viable version of the objection from ontologism. This version claims that a theory that posits non-ontic structure radically breaks with metaphysical orthodoxy. While the objection might not show structure to be intrinsically problematic, it does attempt to put a greater burden of proof on a proponent of such a theory.

I also argued, however, that the belief that structure marks a radical departure
from orthodoxy is mistaken. There are several extant metaphysical theories that, in one way or another, deviate from ontologism. Given that these theories are not in general seen as problematic, a theory of non-ontic structure shouldn’t be either – at least so far as ontologism is concerned.
4.1 Introduction

My goal in this chapter is to make room for a new form of realism. Knee-jerk realism, recall, is the claim that the world is a certain way and that our attempts to describe it can be better or worse. Traditionally, knee-jerk realism has been associated with an entity-centric picture of the world. On this picture, our claims about the world are evaluated on the extent to which they correspond to things in the world: propositions, facts, objects and properties – whatever.

I reject this picture. But I do not reject knee-jerk realism. The form of realism I prefer allows for a correspondence between language and world that is not entity-centric. This correspondence holds between ideology and the structure of the world. I am, you might say, an ideologue. In chapter 3, I argued that this view is intelligible. That was largely a defensive play. Here, I go on the offensive. I argue that such a theory is better than an ontologist account of structure on which a claim about some structure x implies that x is a discrete, countable individual.

The main motivation for the ontologist account structure stems from a prior disposition toward metaphysical ontologism. (Thus ends the discussion of methodological ontologism and begins the discussion of metaphysical ontologism; all further instances of ‘ontologism’ now refer to metaphysical ontologism.) It is perfectly normal

\[1\] Explicitly, knee-jerk realism is the conjunction of the following three claims: (i) the world is a certain way, (ii) in principle, we can know that some ways of describing the world are better than others, and (iii) it is primarily in virtue of how the world is that these ways are better.
for someone who is already sympathetic towards ontologism to try to fit structure into that framework.

This being the case, my argument against ontologism about structure proceeds in two steps. First, in §4.2 I show that ontologism is not as well motivated as one would expect from such a prevalent view. I discuss two prominent instances of profligate ontologism. I call them profligate because they are, as I argue, unmotivated. A non-ontic alternative is just as capable of solving the problem the ontologized theory is supposed to address. Since these problems are the primary motivation for ontologism, the position is overall less motivated than commonly thought.

Then, in §4.3 I show that the ontological account of structure faces special problems concerning regresses and explanatory relations. While there are solutions available to the ontologist, they come with serious costs. Furthermore, since ontologism is often simply assumed, the costs and benefits of the alternative – my account of non-ontic structure – are underexplored. It is therefore worth seeing how far my theory can take us.

To that end, in §4.4 I further develop my account of non-ontic structure and the matching notion of ideological correspondence. I show that the package of views is in fact viable. I point out a few of the consequences of the view and develop some of its formal features. Along the way, I discuss some challenges the views face.

4.2 Profligate Ontologizing

Recall from §3.3 that an ontological sentence is a sentence that tries to characterize how some thing is or how some things are. This includes all sentences with a wide-scope quantifier – e.g. ‘∃x∃y(x = y)’ and ‘∃x(x is a cat)’ as well as particularized sentences like “Widget is a cat.” Ontologism is the claim that the truth of all sentences supervenes on the truth of ontological sentences.

Ontologism crops up all the time in philosophy. I suspect that there is a good,
although contingent, explanation for this. But the tendency to start with ontologism as a basic assumption needs to be counteracted. While it might be intuitive to ontologize a given topic, we need not and in some cases should not do so. In this section, I will consider two arguments for ontologism and show why they fail.

4.2.1 Truthmaker Theory

As philosophical theories go, truthmaker theory is popular. Yet it entails ontologism.

Cameron (2008) formulates the _Truthmaker_ principle as: “When there is truth, there must be some thing (or things) to account for that truth: some thing(s) that couldn’t exist and the true proposition fail to be true,” (410). Widget accounts for the truth “Widget is a cat.” Likewise, the sentence “Numbers exist,” has to be true if the number 2 exists.

A quick terminological note. Despite Cameron’s formulation of Truthmaker in terms of propositions, throughout I will talk in terms of sentences. I do this to remain consistent with the language of previous chapters, where I defined a truth as a true sentence. I will therefore talk as if there is a necessary connection between sentences and the propositions they express. But feel free to recast everything in terms of propositions; none of my main points should be affected.

The Truthmaker principle entails ontologism:

1. Truthmaker: For every truth, there is some thing (or things) such that, necessarily, if it exists (or they exist) then that truth is true.

2. For every thing there is a unique set of ontological sentences about that thing such that, necessarily, that thing exists if and only if those sentences are true.

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3These are the “essential truths” of the object. I make no claim about what these truths look like. The set is guaranteed to be non-empty, though, given truthmaker statements like “p is true and ∃x(Necessarily, if x exists then p is true).”
3. Thus, for every truth, there is a unique set of ontological sentences such that, necessarily, if those sentences are true then that truth is true.

4. (3) entails that ontologism is true.

C. Ontologism is true.

Thus, a commitment to the Truthmaker principle entails a commitment to ontologism.

Even though some do deny truthmaker theory, it is popular and holds a lot of appeal. Someone might be rightly hesitant to accept any view that is incompatible with truthmaker theory. Since my non-ontic account of structure is so incompatible, there is a prima facie good reason to reject it for the alternative ontologist account of structure. Yet I think the primary motivation for endorsing truthmaker theory is consistent with theories that posit non-ontic features of the world.

Start with what is commonly said at an intuitive level on behalf of truthmaker theory. In motivating the view, Armstrong (2004) says, “My hope is that philosophers of realist inclinations will be immediately attracted to the idea that a truth, any truth, should depend for its truth for something ‘outside’ it, in virtue of which it is true…” (7). Similarly, Cameron (2005) says, “A familiar thought amongst metaphysicians is that truth ought to be grounded in the world; that what is true is a matter of how the world is, and hence that when there is truth there must also be something in the world to account for this truth. We give that something a name; we call it a truthmaker,” (43).

Both seem to appeal to something like knee-jerk realism in support of the truthmaker principle. Both also seem to subtly move from the outward dependence of a truth to there being an entity that makes the truth true. That is, they shift from something making a claim true to some thing making a claim true. This shift is questionable, paradigmatic of the ontologist tendency to assume an entity-centric picture.
Knee-jerk realism does support Armstrong and Cameron’s claim about the connection between truth and world. It does not support their claim about the existence of a truth-making entity – at least, not straight-forwardly. Of course, the shift is trivial if ‘something’ is understood as first-order objectual quantification. But it need not be. The “familiar thought” can be stated more neutrally as, “Truth is outwardly determined,” or slightly-less-neutrally as “Whatever makes claims true is a feature of the world.” Knee-jerk realism doesn’t extend as far as Armstrong and Cameron would have it. It’s intuitive appeal doesn’t support the truthmaker principle.

Perhaps knee-jerk realism is best understood as supporting the claim that Truth Supervenes on Being (TSB). Yet TSB also entails ontologism. Lewis (2001) defines TSB as the claim that “[f]or any proposition P and any worlds W and V, if P is true in W but not in V, then either something exists in one of the worlds but not in the other, or else some n-tuple of things stands in some fundamental relation in one of the worlds but not in the other,” (612). TSB is weaker than Truthmaker in that TSB allows for variation in truth without variation in existence so long as there is some relational change between the things that do exist. But the argument given above can be run mutatis mutandis with TSB (as before, I formulate it in terms of sentences):

1. TSB: For every sentence S and any worlds W and V, if S is true in W but not in V, then either something exists in one of the worlds but not in the other, or else some n-tuple of things stands in some fundamental relation in one of the worlds but not in the other.

2. (A) For every thing there is a unique set of ontological sentences about that thing such that, necessarily, that thing exists if and only if those sentences are true; (B) For every fundamental relation that holds between some n-tuple of things there is a unique set of ontological sentences about that relation such that, necessarily, that relation holds between those n-tuple of things if and only if those sentences are true.

3. Thus, for every sentence S, there is a unique set of ontological sentences such

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4See Williamson (1999) for a slightly different approach to this issue.
that, necessarily, if those sentences are true then S is true.

4. (3) entails that ontologism is true.

C. Ontologism is true.

Someone who endorses my account of structure is committed to the denial of both Truthmaker and TSB. At first glance, this suggests that my account is inconsistent with knee-jerk realism and therefore should be rejected.

But there is no such inconsistency. I deny that truths float free of the world. Here is a perfectly coherent way to constrain theories, non-ontic and ontic alike:

**Duplication Invariance:** (a) For any purely qualitative sentence S and any worlds W and V, if S is true in W but not in V, then W and V are not duplicates; (b) For all worlds W and V and any purely qualitative sentence S, if W and V are duplicates, S is true in W if and only if S is true in V.

A purely qualitative sentence is a sentence that is about and only about purely qualitative features. A sentence that is about a haecceity (e.g. “The property being identical to Socrates is instantiated.”) is not a purely qualitative sentence. Importantly, however, a feature is not necessarily a property (or a universal or a trope). Recall that the non-ontic presentist thinks some past-oriented sentences are true or false not in virtue of the instantiation of a property but in virtue of the world having some temporal feature. These sentences also count as purely qualitative – at least, the ones that aren’t otherwise non-qualitative. Similarly, sentences about the presence or absence of structural features (e.g. ‘$\mathcal{S}(\Box)$’) are purely qualitative.

The notion of a purely qualitative sentence is just that of a purely qualitative property stripped of its ontological baggage. Of course, the notion of a purely qualitative property is itself less than clear.\footnote{Adams (1979): 7–9} But I hope I can get away with using an imprecise yet fairly intuitive distinction that many, many others have used.
Additionally, the use of ‘duplicate’ in the above principle somewhat deviates from common usage. Lewis (1983a) holds that two things are duplicates just in case they have exactly the same natural properties (356). But that will not work here since the qualitative features of particular interest are not properties. The intuitive idea behind the notion of a duplicate, though, is that of perfect objective similarity. Duplication need not be understood purely in terms of individuals having properties. Duplication can be taken as primitive, with the caveat that duplicates share all their qualitative features, ontic and non-ontic alike.

Duplication Invariance says that variance in truth between perfectly similar worlds is impossible. It is an improvement over Truthmaker and TSB because it avoids the needlessly ontological element but still captures the central intuition behind them: that what is true or false depends on how the world is. Certainly these stronger views could be true. But, pending an argument that truth supervenes specifically on things, a more ontologically neutral formulation of truthmaking is sufficient.

4.2.2 Second-order Quantification

My second example of profligate ontologism comes from a certain neo-Quinean approach to second-order quantification. On the Quinean understanding of the semantics and metaphysics of first-order predicate logic, the objects of the model (the domain) correspond to the objects of the world (what exists). In this case it makes sense to understand quantificational sentences as being about particulars out there in the world. After all, for the Quinean this is exactly what ontology is supposed to consist in! Some Quineans extend this model-corresponding reasoning to cover sentences expressed using second-order logic. This is an example of profligate ontol-

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6Duplicate worlds are similar in every qualitative respect. Two worlds cannot therefore be duplicates but have different laws of nature. This is because what the laws of nature are depends on the qualitative nature of the world. This is true even for best system accounts. Duplicate worlds also have duplicate observers and duplicate evidence.
ogism, however, since such an approach is neither required nor preferable.

“My cat and your cat share some of the same napping spots,” is clearly a statement about particulars – our cats and their napping spots. Now consider the statement “Spiders share some of the anatomical features of insects.” At first glance, the second sentence has the same form as the first. If this is right, then the second sentence is also about particulars – spiders, insects, and their features. Peter van Inwagen endorses this reading. To say “Spiders share some of the anatomical features of insects,” is, according to him, just to say “There are anatomical features that insects have and spiders also have.” This statement, in turn, is understood as ordinary objectual quantification over features: “It is true of at least one thing that it is such that it is an anatomical feature and insects have it and spiders also have it.”

But van Inwagen’s reading is not be the only one available. Sentences about anatomical features can be formalized using second-order logic. On this approach, variables are introduced that grammatically behave like predicates. Informally, such variables can be understood as pronouns outside of the nominal position, as in “Mindfulness and happiness are somehow related,” or “He is something that I am not: kind.” To move in stages, “Spiders share some of the anatomical features of insects,” can be regimented as ‘∃F(spiders are F ↔ insects are F)’. In English: “There is something that spiders are just in case insects are as well.” Fully regimenting the sentence produces ‘∀x∀y∃F((Sx ∧ Iy) → (Fx ↔ Fy)).’ In English (supplemented for readability): “For any thing x and another thing y, there is something F such that if it x is a spider and it y is an insect then it x is that F just in case it y is that F.”

Though cumbersome, this reading is useful insofar as it helps make property nominalism credible. Someone who endorses property nominalism denies the existence of

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7 See van Inwagen (2004): 114–115

8 I wouldn’t have been able to supply even this cumbersome statement without Rayo and Yablo (2001).
properties and property-like entities. Because feature-involving sentences like “Spiders share some of the anatomical features of insects,” are indispensable for scientific theorizing, she cannot help but include them in her theories. She must interpret such sentences in a way that avoids an ontological commitment to those entities she rejects. While she might grant that there is a reading on which such sentences quantify over properties, she insists that it is not a required reading. She instead interprets the sentences as employing second-order ideology as specified above. These second-order readings avoid ontological commitment to properties.

Van Inwagen denies the tenability of the nominalist’s approach to feature-involving sentences. As he puts it, “Quantification into non-nominal positions is meaningless unless...it is understood as a kind of shorthand for nominal quantification over properties.” In other words, the alternative reading that the nominalist offers only makes sense if it is merely another way of stating the first reading. Since the first reading involves quantifying over properties, the nominalist is unable to coherently state her position.

I disagree. The nominalist can coherently state her position without quantifying over properties in the nominal position. This is because the nominalist’s approach is supported by the same motivation that supports the Quinean methodology of doing ontology.

We should adopt the Quinean methodology of doing ontology. We should do this because we have seen it illuminate what was previously shrouded in Meinong’s darkness. Before, we were in the dark about how to intelligibly deny the existence of an entity. Regimenting natural language expressions – even carefully phrased natural language expressions – into first-order logic helps us avoid errors of confusion and see the way forward. It sets the groundwork for doing ontology. That the Quinean

\begin{footnote}{van Inwagen (2004): 124. I exclude the other possible interpretations of second-order quantification for ease of exposition.}\end{footnote}
methodology does all this was not some foregone conclusion. Some even today deny that it does. But I think time and effort have proven that the Quinean methodology is the right methodology. Those who agree with me are what I call neo-Quineans.

Few present-day neo-Quineans think we can use only the resources of first-order logic when giving a regimentation. Their commitment to neo-Quineanism does not include strict rules about which linguistic tools are impermissible; they simply maintain that claims about what there is are best regimented using first-order quantification. In other words, neo-Quineans, in virtue of being neo-Quineans, regiment some but not necessarily all types of expressions into first-order logic.

To illustrate this point, consider the claim “Hubert Humphrey could have won the election.” A neo-Quinean might say the following:

To say, “Hubert Humphrey could have won the election,” is just to say “There is a way the election could have gone where Hubert Humphrey wins.” And this is just to say “It is true of at least one thing that it is such that it is a way things could have gone and according to it Hubert Humphrey wins the election.” Of course, ‘way things could have gone’ is just another name for a possible world. And so the original sentence about what Humphrey could have done involves an ontological commitment to possible worlds.

Must all neo-Quineans say this? Does a commitment to the Quinean methodology force the first-order reading of modal claims? No. There is an alternative reading of “Hubert Humphrey could have won the election,” that avoids quantification over possible worlds – namely, a reading on which modal operators are primitive. Thus, the claim can be regimented as something like “Hubert Humphrey is such that, possibly, he wins the election,” or ‘∃x(Hx ∧ ♦Wxe)’. This regimentation is adequately clear and makes explicit what is – and what is not – being asserted. Meinong’s darkness

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11See, for instance, Sider (2009); Sullivan (2012); Turner (Forthcoming). Even some who disagree with the neo-Quinean approach to ontology agree about how to regiment existence claims – e.g. Rettler (2010); Schaffer (2009). Thanks to Jason Turner for discussion on this issue.
is thereby overcome. No strictly first-order regimentation is needed.

The same lesson applies to the second-order reading of feature-involving sentences. Both give a slightly cumbersome reading using non-first order ideology and thereby avoid apparent ontological commitment. Both thereby step out of Meinong’s darkness. What reason is there for allowing the modal regimentation but denying the second-order regimentation?

The standard motivation for neo-Quineanism does not undermine claims involving second-order quantification. So someone can be a card-carrying neo-Quinean and deny that second-order quantification is equivalent to first-order quantification over property-like entities.

Furthermore, the sort of ontologism that preemptively rejects second-order quantification unfairly stacks the deck against nominalism and should be avoided if possible. Ontologism is, once again, non-obvious and laden with baggage. This alone is reason to consider an alternative form of realism.

But it gets worse.

4.3 Problems with Ontologism

In this section, I develop two arguments against ontologism. The first argument is based on a regress generated from quantification over structure. The second argument highlights some unattractive consequences of ontologism as it relates to seemingly entity-independent truths.

There are certainly responses to these arguments that can save ontologism. I will even gesture towards some. But my arguments show that ontologism is not, as might

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12Cf. Hazen (1993). Hazen takes Quine’s arguments “as showing that there is at least a defeasible presumption that their theory commits them to a domain of objects or the quantifiers to range over,” (136).

13See Turner (2015): 20.3.1.1 for a similar argument.
be assumed, an unproblematic view. Given the costs, it is overall better to reject ontologism.

4.3.1 Quantified Structure Regress

According to the ontological account of structure, all structural features of the world are entities in the same way electrons, events, and properties are. I argue that this view leads to an infinite number of structural or structure-like entities. Because the regress prohibits a satisfactory explanation, it is vicious and counts against the attractiveness of the ontological account of structure.

The numbered-premise argument below is abstracted in that it does not identify particular structural features. This is because people will disagree on what structural features the world contains. But since I have discussed and motivated it already, I will first use the A-theory example from § 3.4 to illustrate how the argument works.

The world in fact has temporal structure. But the world could have had a timeless structure. On the ontologist account, both of these claims involve structural entities. There must be some other structure-like entity that explains why the timeless structure is not the structure of the actual world, since its mere existence isn’t enough. For the same reason, there must be a further entity that explains why that structure-like entity does what it does. And so on. Such an infinite chain fails to explain the original fact that the world has a temporal structure and not a timeless structure.

That’s the informal gloss of the regress. Here is the argument formalized and stripped of adornments:

1. Ontologism about Structure: For every entity, x, if x is structured then there is some entity, y, that is the structure of x.

2. There is some non-structural entity, n, that is structured but could have been differently structured.

The sense of explanation at play here is what is sometimes called *metaphysical explanation*. See Audi (2012); deRosset (2013).
3. Thus, there is some entity, s, that is the structure of n. [1,2]

4. The fact that s exists doesn’t explain the fact that s is the structure of n.

5. If the fact that s exists doesn’t explain the fact that s is the structure of n, then there is some entity, t, such that the fact that t exists explains the fact that s is the structure of n.

6. So there is some entity, t, such that the fact that t exists explains the fact that s is the structure of n. [4,5]

7. t either is a structural entity or is not.

8. If t is a structural entity, then there are infinitely many structural entities in this chain.

9. If there are infinitely many structural entities in this chain, then there is no explanation for the fact that s is the structure of n.

10. So if t is a structural entity, then there is no explanation for the fact that s is the structure of n. [8,9]

11. If t is not a structural entity, then it is either an ordinary non-structural entity or a “higher-order” structure-like entity.

12. t is not an ordinary non-structural entity.

13. So if t is not a structural entity, then it is a “higher-order” structure-like entity. [11,12]

14. If t is a higher-order structural entity, then there are infinitely many entities of increasingly higher-order structure in this chain.

15. If there are infinitely many entities of increasingly higher-order structure in this chain, then there is no explanation for the fact that s is the structure of n.

16. So if t is not a structural entity, then there is no explanation for the fact that s is the structure of n. [13,14,15]

C. There is no explanation for the fact that s is the structure of n. [7,10,16]

The ontological account of structure is therefore committed to the bruteness of facts about contingently structured entities. I will now justify each independent premise in turn.

Premise (1) is just the ontological account of structure.
Premise (2) could be false in three ways. First, it would be false if there weren’t anything at all. But that is not a live option because no one who would want to quantify over structure would be an ontological nihilist. Second, premise (2) would be false if the world were nothing but structure. I suspect not many would want to say the world is nothing but structure.\[15\] Recall that structure is a *sui generis* metaphysical posit. Whatever quarks are, they are not metaphysical structure in this sense. Neither are events, tropes, or whatever else metaphysicians ordinarily posit. Third, premise (2) would be false if everything were to have its structure necessarily. My argument against that possibility is more-or-less the same I would give against ordinary necessitarianism: surely things could have been otherwise! Non-ontic presentism is a case in point. It is possible that the world have no temporal structure even if it actually does. Similarly, the world might have had different fundamental physical properties. It is plausible, then, to think any total metaphysical theory that includes structure will admit of some variance in what that structure could have been.

A little more is needed to justify premise (4). Compare the world without temporal structure to the world with temporal structure. The structure of the second subsumes the structure of the first in the sense that it contains every structural feature of the first and more. So the structure of the static world exists in the temporal world. Yet it is not the structure of the temporal world. The fact that the static structure exists cannot explain why it is the structure of the world because in some cases it exists but is not the structure of the world.

Premise (5) is another way of stating that contingent facts about what structures what cannot be brute. This is because we should in general be suspicious of brute modal facts. This suspicion is especially warranted in the case at hand. The entity, s, that is the timeless structure of one world, n, exists in another world, m, but fails to

\[15\] Cf. Ladyman and Ross (2009)
be the structure of m. This fact cries out for explanation – explanatory facts about structure cannot be both brute and contingent. The only explanation available to the ontologist is that there is some entity, t, such that the fact that t exists explains the fact that s is the structure of n.

Premise (7) is just a logically exhaustive disjunction.

Premise (8) is where the regress hits. If t is a structural entity, then it must be the structure of something. Since the fact that t exists explains the fact that s structures n, t must be the structure of n-with-s. But if it is possible for s to not be the structure of n, then it is possible for t to not be the structure of n-with-s. The same reasoning used in premises (4) and (5) shows that there is some further entity, u, such that the fact that u exists explains the fact that t is the structure of n-with-s. And so on. There will therefore be an infinite chain of structures, each structure in this chain structuring the structure that came before. It’s structure all the way up.

Is this regress benign, at worst a somewhat uneconomical consequence of ontologism? Premise (9) states that the problem is much worse. The fact that s is the structure of n cries out for explanation. But if each explanation offered itself cries out for explanation, then no progress has been made. As a result, the ontological account is unable to offer an explanation for facts about contingently structured entities.

Premise (11) is just a logically exhaustive disjunction. A structure-like entity is an entity that satisfies the explanatory role of structure but is distinct in kind.

The reasoning behind premise (12) is the converse of that for premise (2). Metaphysical structure is posited to do something that ordinary objects do not. So something that satisfies the role of structure cannot be an ordinary object. And at any rate it’s hard to see how the typical entities posited could do what is required here, especially when specific cases are taken into consideration.

Premise (14) is just the regress from premise (8) but at a different level. Presumably, if “second-order” structure is required to explain the fact that something is the
structure of an ordinary object then “third-order” structure is required to explain the fact that the second-order structure does what it does. And so on.

Finally, premise (15), like premise (9), states that the regress is vicious. In this case, it’s even worse. This second regress continuously introduces new kinds of entities whereas the first regress only requires a single kind of entity.

My regress argument bears a striking resemblance to what Armstrong calls the “fundamental tie regress,” an argument concerning the relationship between particulars and universals.[16] My argument is stronger, however. In Armstrong’s regress, the fact that a is F is explained by the fact that a instantiates F, which in turn is explained by the fact that a and F instantiate instantiation, and so on. Armstrong tries to end the regress by denying that the fact that a and F instantiate instantiation needs an explanation. The parallel move is unavailable in response to my argument. That something is structured such-and-such a way will, when the original structure is contingent, always require an explanation. Thus, all further facts about structure that are chained to that contingent structure are themselves in need of explanation.

My argument’s resemblance to the fundamental tie regress also suggests that somewhere there lurks an analogous regress for my account. Maybe. It seems to me, though, that the non-discrete nature of non-ontic structure is less vulnerable to regress. I can’t hope to fully address the problem here, especially because I have yet to give my full account. But don’t lose sight of the fact that the ontologist does have this problem. Her dogmatism gets her into trouble and thereby diminishes the appeal of her position.

[16] Armstrong (1989): Section XII. I find what Armstrong says on this point ambiguous. He suggests a modal reading as when he says, “But in general...the fact that an object instantiates a certain property does not flow from the nature of the object and the nature of the universal that are involved. The connection is contingent.” Yet when giving his solution a paragraph later, he talks about “logically determined” states of affairs that do not require “new truth-maker[s] or ontological ground[s].” (108–110). I will talk as if Armstrong had the explanatory issue in mind. Some might also connect this argument to Bradley’s regress. See, though, Perovic (2014).
4.3.2 Strange Explanatory Relations

The second argument targets ontologism more broadly. Plausibly, someone who endorses ontologism owes an explanation for why the supervenience holds. The ontologist doesn’t just think that there is a brute modal dependence. There is some story to be told. Yet this story, when prodded, sounds less than compelling.

First, consider the collection of sentences that is our best total theory, $T$. Now take those sentences of $T$ that are about the world, where a sentence is “about the world” just in case it is about some feature or features of the world. Call the collection of these sentences $W$. To not beg any questions, let’s assume that the sense of aboutness at play here is not one that requires there to be a thing; sentences can be about non-ontic features. Some of the sentences of $W$ will be ontological truths, in the technical sense given in §3.3. Call the collection of these sentences $O$. According to the ontologist, the truth of $W$ supervenes on the truth of $O$. Any worlds that agree on the truth of $O$-sentences also agree on the truth of $W$-sentences.

A collection of entities, $X$, is the minimal ontological base of a sentence $S =df$ every entity that $S$ is about is an element of $X$, and $S$ is about every element of $X$. Plausibly, all ontological truths have non-empty minimal ontological bases. Do all non-ontological truths? Below, I give four kinds of claims that various philosophers have been inclined to endorse. These claims seem to have empty ontological bases.

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17 Compare to the physicalist’s challenge in Horgan (1993).

18 E.g. ‘$\exists x (\text{pegasizes}(x))$’ is about the $x$ that pegasizes – Pegasus. It isn’t about anything else, and so Pegasus is the minimal ontological base of the sentence. More needs to be said to give a fully functional account of a minimal ontological base. It’s tempting to say that an object is part of a sentence’s minimal ontological base just in case it falls in the extension of the predicates contained in the sentence. But this won’t work. For example, ‘My cat is blind.’ might be regimented as ‘$\exists x (\text{Cat}(x) \land \text{Blind}(x) \land \text{Mine}(x,p))$’. But that sentence shouldn’t include all cats in its ontological base. Intuitively, it should just have one – mine! Nevertheless these details don’t affect the main argument, so I will ignore them. A more pressing worry is that some ontological truths might not have minimal ontological bases. On this view, some quantificational truths are true, but not in virtue of some entity or other. This is an interesting view, but since its truth would help – rather than hurt – my argument, I ignore it.
Presentist Truths: The only things that exist are things that exist presently. But there are truths about the world that are not about anything presently existing. For example, “The Trojans were conquered,” is true but not about any existing Trojans, nor about any existing property like being such that the Trojans were conquered, nor about abstract B-series times. But “The Trojans were conquered,” is a contingent truth. It is now true of our world but in some worlds it is always false.

Alien Truths: Consider two possible worlds where international boards of science launch fundraiser campaigns for an experiment they have found crucial to their understanding of particle physics. In these worlds there is a fundamental particle, the possibletron, that is alien to our world. The experiment would determine what would happen to a possibletron that is subjected to high amounts of energy. In both worlds the campaigns unfortunately fail and plans for the experiment have to be abandoned. However, the two worlds differ in what would have happened had the experiments been conducted. In one world the possibletron would have split; in the other it would remain intact.

Truths about Concrete Stuff: In addition to things, there is concrete stuff (stuff like water, ice cream, and clay). Some contingent truths about concrete stuff are not about any things. Take, for instance, the truth I express by saying “The coffee I brew at home is better than the coffee at Chicory Café.” Someone might try to understand this sentence as being about pluralities of molecules arranged coffee-wise. But she would be distorting the meaning of my expression. The superiority of my coffee is about this stuff I am drinking – my coffee – and not about some collection of molecules.

Ethical Truths: Some ethical judgments are not descriptions of things in reality. “It is wrong to break a promise,” is true and “It is permissible to murder for fun,” is false. Yet there is no thing such judgments are about, at least not in the same way that “All electrons are negatively charged,” is about electrons. Moreover, certain ethical judgments are contingently true. And they are not true in virtue of Platonic entities like the property permissibility. If anything, they are true in virtue of how the natural world is.

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19 At least, on the intended reading. It is undeniably true that USC has been conquered before.

20 This example is from Merricks (2007): Chapter 6. I should note that this case does not characterize the views of all presentists.

21 This is a modification of a case found in Putnam (1978): 164.

22 This example is inspired by the stuff ontology found in Markosian (2004, 2015), especially as articulated by reason one of the latter paper.

23 This example is inspired by Putnam (2004), especially Lecture 3.
I think all four of these cases attempt to make some claim about how the world is without making a claim about things in the world. I say ‘attempt’ because some would insist that I am mistaken and that each case, if it says anything at all, makes a claim about things in the world. Take the presentist claim “The Trojans were conquered.” Someone like [Crisp (2007)] would understand that sentence as being about abstract times and so would deny that it has an empty ontological base. Someone like [Chappell (1970)] would understand the claim “The coffee I brew at home is better than the coffee at Chicory Café,” as being about cups of coffee and so would also deny that it has an empty ontological base. There will always be some move like these available to the ontologist since any claim can be given an ontological twist with enough elbow grease. Crisp and Chappell should nonetheless admit that their positions are counterintuitive on this point. “The Trojans were being conquered,” is not intuitively about a B-series ersatz time. My claim about coffee doesn’t seem to have nothing to do with how the coffee is served. Other ontologist positions come with a similar cost (however big that cost may be) concerning intuitions about subject matter.

But the costs don’t end there. In the remainder of the section I will argue that the story the ontologist has to tell involves unappealing explanatory relations.

Relative to any truth, there are internal ontological truths and external ontological truths. A sentence, $S_1$, is an internal ontological truth relative to a truth $S_2 \equiv S_1$ is an ontological truth and $S_1$‘s minimal ontological base is contained in $S_2$‘s minimal ontological base. For example: “Electron 1 has a negative charge,” is an internal ontological truth relative to the sentence “Electrons 1, 2, and 3 are arranged in such-and-such a way.” A sentence is an external ontological truth relative to a truth just

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25 I’m anything but a scholar of ancient philosophy. Yet Aristotle’s argument against the Form of the Good in 1.6 of the Nicomachean Ethics seems to make just this point against Plato.
in case it is an ontological truth but not an internal one.

According to ontologism, all non-ontic truths supervene on ontological truths. Why? What explains the supervenience? If taken at face value, the cases above show that some contingent truths have empty ontological bases. Clearly, the internal ontological truths of such truths won’t be involved in any explanatory story – whatever internal ontological truths they have will never change in truth value! So the explanation must involve their external ontological truths.

In some cases it is difficult to find a plausibly explanatory external ontological truth. Take the presentist truth “The Trojans were conquered.” If presentism is true, the only candidate external ontological truths are truths about presently existing temporally bound entities and truths about temporally unbound entities. Neither option leads to a plausible explanatory story.

There is precisely one thing in the former class of truths that might play an explanatory role. On a presentist account, two worlds can be such that the same things exist with the same intrinsic properties but the Trojan sentence true in one and false in the other. They differ in that one world instantiates the intrinsic property *being such that the Trojans were conquered* and the other does not. Note, however, that the ontologist who goes this route is committed to the existence of an object, the world, to explain claims about the past. Hopefully, the ontologist is already committed to its existence and is only putting it to good theoretical use (otherwise her response would seem *ad hoc*). There are plausible views on which such an object exists, mereological universalism being one prominent example. But the fact that the ontologist’s account must be coupled with a controversial view in mereology is a good reason to be dissatisfied with her story. Additionally, the ontologist is committed to a smorgasbord of world-level properties like *being such that the Trojans were conquered*. Her account comes at a price.

The ontologist might instead explain the presentist truth with some external onto-
logical sentence concerning temporally unbound entities. Adopting Crisp’s strategy, say that the truth that explains the truth of the Trojan sentence is something like “There exists two propositions, p and q, such that p is present, q is earlier than p, and the proposition that the Trojans are conquered is included in q.” Again, the ontologist incurs further ontological commitments. Her appeal to propositions in this case is admittedly less *ad hoc*, since propositions are commonly posited for other reasons. Yet the fact that ontologism is forced into this situation seems to me to be a serious reason to look elsewhere.

Of course, the above is nothing like a knock-down argument against the ontologist’s accout. But it gets worse. Let’s stick with the Trojans. The external ontological truths that explain the presentist truths are not truths about ordinary things in the world. Rather, they are truths about the world as a whole or about some sort of temporally unbound entity like a proposition. For simplicity, suppose it works in the following way; what I say applies equally well to other approaches. Suppose that the non-ontic truth “The Trojans were conquered,” is explained by the ontological truth “The world instantiates the property *being such that the Trojans were conquered*.” This second sentence has as its minimal ontological base the world and the property *being such that the Trojans were conquered*. Every available explanation for the requisite supervenience is unsatisfying.

First, the ontologist might deny that there is anything to explain. According to this strategy, it is a brute fact that the world instantiating the property *being such that the Trojans were conquered* explains why the non-ontic claim is true. The brute fact strategy is unsatisfying. Consider a case concerning the present. My cat Widget is now napping. It seems wrong to say that the fact that the world instantiates the property *being such that my cat Widget is now napping* explains the truth of “My cat Widget is now napping.” It is the fact that my cat Widget is now napping that does the explaining! In cases concerning the present, facts about local entities and local
properties do the explaining. In cases concerning the past, facts about the global entity and its global properties do the explaining. The ontologist is committed to unsystematic explanatory stories. To say that they are brute is unsatisfying.

So what explanation could the ontologist give for the fact that the world instantiating being such that the Trojans were conquered makes “The Trojans were conquered,” true? The ontologist might invokes Kit Fine’s notion of fact-grounding. This strategy is also unsatisfying. Presumably, if the grounding strategy is to work, there will be interesting relationships between the grounding relations. For example, from “The Trojans were conquered” and “The Incas were conquered,” it follows that “Two groups were conquered.” This relationship would ideally be reflected in their grounds. But reality is not so kind. Though we call it the property being such that the Trojans were conquered, this property has no internal structure that can explain its relationship to the property being such that the Incas were conquered. So the world-level properties appealed to by the ontologist are unable to account for the logical relations that hold between presentist truths.

Again, these are not knock-down arguments against the ontologist. She might simply deny presentism. Or she might deny that there are non-ontic truths. She might simply embrace the brute supervenience of the non-ontic on the ontological. Or she might admit that her view faces problems but insist that the non-ontic alternative is overall worse-off. These are not untenable responses. Nevertheless I have articulated good reasons to be unsatisfied with the ontologist’s account. Ontologism, however it is fleshed out, comes with costs. It is worth seeing how these costs compare to those of the non-ontic alternative.

4.4 An Account of Ideological Correspondence

I want to start paying back on a promissory note I issued in chapter 2. There, I argued for ideological externalism on the basis of its ability to help adjudicate
metaphysical disputes. The dialectical stalemate that Bennett (2009) has noted many metaphysical disputes are in is the inevitable result of the disputes’ participants failing to reach a consensus on what is at stake. I have argued that my account of ideology is well-suited to be part of such a consensus. Now I show how it works.

To do that, I need to say more about my account. I need to clarify two points in particular. First, I need to say more about what ideological correspondence is. Throughout, I have argued that structure should not be ontologized. Since relations require relata and relata are entities, ideological correspondence cannot be a relation. How, then, should correspondence claims be regimented? I first argue that correspondence should be taken as primitive and not be reduced to some more familiar notion.

Then, I apply the resources I have developed to provide a framework for metaphysical disputes. Theories are compared in part by the extent to which their ideologies correspond to features of the world. This being the case, I formalize the notion of comparative correctness. Following Sider, I introduce an operator for regimenting claims about ideological correspondence. This operator directly attaches to bits of ideology of any grammatical category. With this operator in hand, claims about correspondence can be formulated and compared. I end the section with some further resources for characterizing claims about structure.

4.4.1 Primitive Ideological Correspondence

In §1.5, I argued for a linguistic answer to the identity question, where ideological correspondence is between bits of ideology and features of the world. The primary motivation for the linguistic answer is its neutrality on the metaphysics of facts, propositions, and other entities related to truth and representation. But why not, in response to the difficulties I’ve faced in characterizing ideological correspondence, abandon the account for one less neutral but more straightforward?
Because it doesn’t get any better. My account runs against the intuition that correspondence is a relation that holds between entities. This problem doesn’t go away if ideological correspondence is reduced to some more familiar notion. In what follows, I run through some initially appealing reductions and show them to be no improvement. In general, the available reductions all utilize a relation to non-ontic features – precisely what needs to be avoided. Thus, they are no improvement over a primitive notion of non-relational ideological correspondence.

Someone might try to reduce ideological correspondence by appealing to propositions:

**Proposition Correspondence:** A bit of ideology, \( \phi \), corresponds to the structure of the world \( =_{df} \) (a) every sentence that employs \( \phi \) express some proposition among \( p_1, \ldots, p_n \), (b) \( p_1, \ldots, p_n \) have as a shared constituent some structure of the world, and (c) no other proposition has that structure as a constituent.

Here, the correspondence between ideology and structure is mediated by propositions. Propositions in this way cluster claims employing the relevant ideology together, focusing them onto the relevant structure. What structure is identified is determined by the overlapping constituents of the propositions; modal structure corresponds to ‘\( \Box \)’ because sentences that employ ‘\( \Box \)’ express propositions that have modal structure as a constituent.

The propositional reduction unfortunately involves an even more “entity-laden” notion: propositional constituency.\(^\text{26}\) It is hard for me to see how a proposition can have a non-ontic feature as a constituent since it seems as if constituency is a relation. That’s just autobiography. Yet many who endorse a theory of propositions also talk as if propositions stand in relations to their constituents.\(^\text{27}\) Those who en-

\(^{26}\)I have in mind here heavyweight constituency. Presumably, lightweight constituency is not suitable for such a metaphysically robust task.

\(^{27}\)Cf. Merricks (2015); Plantinga (1974)
dorse traditional accounts understand propositional constituency as either parthood or set membership, both of which are relations. It’s harder to say how those who endorse more recently popular accounts understand constituency. Yet, following Keller (2013), they still seem to understand propositional constituency as some sort of relation. So reducing ideological correspondence won’t work if propositional constituency is involved.

Someone might try to reduce ideological correspondence by appealing to pictorial or isomorphic representation. A picture, in the sense of Lewis (1986), is an object that represents in virtue of its internal structure. A portrait of my cat Widget represents Widget by having short black and gray brush-strokes in this area, with gradually lengthening and lightening strokes along that direction, with two large oval-shaped pools of faded green here and a little splash of pink there. Pictures need not be physical, two-dimensional representations. Statues and computer simulations are also pictures. The unifying feature of pictures is the ability to represent by isomorphism. The relative distances between the brush-strokes of the painting and the fur on Widget are preserved. And the paints used to represent Widget’s blind, milky eyes are the same color as Widget’s blind, milky eyes. More generally, an isomorphic reduction of correspondence states that there are some relations that hold between different bits of ideology such that those relations are isomorphic to some relations that hold between different structural features.

There is something to the idea that ideological correspondence is a type of isomorphic representation. First, the ideology of a theory models the world by carving it in the right way. So there does seem to be a preserving isomorphism between, e.g., the primitive predicates of an ideology and the fundamental properties of the world. There also is a sense in which isomorphisms capture non-ontic features. The portrait of Widget as an Old Cat communicates to the observer that she is blind even though there is no part of the painting we can point to and say, “There! There
is the blindness of the cat.” The way the eyes are painted communicate that the cat is blind without directly representing the blindness.

Yet the isomorphic reduction fails to present a real alternative. The portrait is not, strictly speaking, isomorphic to Widget. The portrait fails to represent over half of her furry exterior, not to mention her less furry innards. The brush-strokes on the canvas comes to be a complete representation of Widget only by certain conventions. These conventions, even if not purely linguistic, belong to the same family as reference, meaning, and denotation. In §2.5 I argued that these linguistic notions are unfit for ideological correspondence because they are relations between things. The conventions that are needed for a complete representation are plausibly relations as well. And even if they are not, the isomorphic reduction is no improvement. If there are non-relational conventions that can connect language and world then the problem I have been addressing is really no problem at all.  

Someone might try to reduce ideological correspondence by appealing to facts:

**Fact Correspondence:** A bit of ideology, \( \phi \), corresponds to the structure of the world \( =df \) (a) every sentence that employs \( \phi \) corresponds to a fact among \( f_1, \ldots, f_n \), (b) \( f_1, \ldots, f_n \) contain the same structure of the world, and (c) no other fact contains that structure.

For this reduction to work, facts have to be structured entities. (I use ‘contains’ to express the sense in which a fact is structured by its features.) Furthermore, facts have to be located in the world. If facts were instead abstract, representational entities, they would suffer from the same difficulties I raised for propositions. So assume that facts are themselves features of the world. Further assume that facts are plenitudinous: for every truth there is a corresponding fact.  

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28 Compare Lewis (1986): 166

29 For more on this conception, see King (2007); Turner (2016); Wittgenstein (1961).

30 This last assumption is partially for simplicity’s sake and partially for argument’s sake. The fact-based reduction might instead adopt a more complicated story where a truth expresses a relationship
There is something to the idea that facts of this sort adequately capture non-ontic features of the world. The dispute between the A-theorist and the B-theorist might be understood as a disagreement on the nature of facts. The A-theorist thinks that some facts are tensed. The B-theorist thinks that there are no tensed facts, or that tensed facts are reducible to or grounded in tenseless facts. If this characterization is right, then there is a sense in which facts can contain or fail to contain non-ontic features. The dispute between the A-theorist and the B-theorist is not a dispute about facts having or lacking some entity, tense. The dispute is about whether or not the facts themselves are tensed. Understood this way, a tensed fact is not merely a fact that is expressed by a tensed sentence, nor is it merely a fact that is at some times true and at other times false. Rather, a tensed fact is intrinsically tensed.

To complete the reduction, there must also be intrinsically modal facts, intrinsically logical facts, and so on. Some might find these sorts of facts obscure. But, more importantly, the fact-based reduction solves the original problem only to create a new and equally difficult problem. Ideological correspondence cannot be understood as a relation between ideology and non-ontic features because such features are not things. Yet if they are not things then neither are intrinsically tensed facts since, after all, what makes such facts tensed are their non-ontic features. Mutatis mutandis for modal facts, logical facts, and any other facts that contain non-ontic features. The problem of correspondence between ideology and non-ontic features then reemerges as the problem of correspondence between sentences and non-ontic facts.

I have argued that attempts to reduce ideological correspondence fail. As a result, either ideological correspondence should be discarded or taken as a primitive. If discarded, any theory that utilizes it must also be discarded – so that’s not an option! If ideological correspondence is primitive, then my account of ideology comes with

between two or more facts. Either way, I’ll talk as if there is a clear and inferentially systematic way of filling in the picture. If there isn’t, so much the worse for the fact-based reduction.
a new primitive that is importantly different from other notions in the ballpark. Furthermore, this new primitive is by its very nature hard to understand.

I think my account is worth the cost of taking ideological correspondence as primitive. In §2.3.4, I argued that my account offers the best defense against skeptical arguments. In §4.2 and §4.3 I argued against the ontological alternative to my account. These arguments outweigh the arguments against primitive ideological correspondence.

Still, it would be good to minimize the costs incurred by taking ideological correspondence as primitive. One such cost is its relative unfamiliarity. If correspondence is not a relation, then what is it?

4.4.2 Characterizing Ideological Correspondence

To help alleviate any worries someone might have with a primitive correspondence between ideology to world, in this section I discuss some of its essential characteristics.

First, note that ideological correspondence is intended to connect, on the one hand, an ideology that has been developed to describe the world. Natural languages are defective on this front. Of course, it makes sense to ask about correctness of theories cast in natural languages. But take the English sentence “Peter ordered sourdough toast (though he would have been okay with whole wheat).” Most of the terminology employed in that sentence can be said to correspond to a feature of the world (me, the collection of toast made from sourdough, a proposition about my mental life, etc.) But to what are the parentheses and the period supposed to correspond? There seem to be no remotely plausible candidates. Even if, as I have argued, there is some sense to be made of the world having logical structure, surely there is no sense in which the world has parenthetical structure.

Thankfully, parentheses and periods do not cause problems for ideological correspondence but rather highlight why natural languages are sub-standard for theory-
crafting. Natural languages include terminology that is not even intended to enrich a description of the world. If maximal realism is true, then every element of a theory’s ideology is externally constrained. It makes sense, then, to eliminate from a theory all expressions that are not even intended to pick out a feature of the world and are included merely for pragmatic purposes like clarity. Call this the sterility constraint, since an ideology that meets the constraint is both metaphysically pure and stylistically barren. Which expressions the sterility constraint would eliminate depends, of course, on the language and the interpretation particular expressions in that language are given. Off-hand, the list of expressions that would be eliminated at least includes all punctuation.

Theories cast in English don’t even come close to satisfying the sterility constraint. Theories cast in first-order logic as typically presented don’t satisfy the sterility constraint either since, as with English, symbols like parentheses serve only pragmatic purposes. But first-order logic can be adapted to meet the sterility constraint. And in general it seems that theories cast in formal languages are more capable of meeting the sterility constraint. For this reason they are better suited than natural languages for theorizing.

As I have said before, ideological correspondence comes in degrees. Some bits of ideology will be objectively better or more correct than others. Return, once again, to the non-ontic A-theorist. She accepts primitive tense operators into her ideology

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31 Technically, when parentheses are included, they play a role in securing a unique reading of formulas – e.g. $p \land q \rightarrow r$ can be read multiple ways but $p \land (q \rightarrow r)$ cannot. Nevertheless they are eliminable in principle so long as this role is satisfied elsewhere, as it is in Polish notation. (Thanks to Joshua Spencer for help on this!)

32 Either variables or names might also be eliminated depending on if the world is fundamentally particular or general.

33 Although maybe there are some respects in which some natural languages are better than available formal languages. Greek, Latin, and even Chinese have at times omitted whitespace between words, something extant formal languages have not done. Thanks to Mike Rea for the pointer.
as a way to characterize the temporal nature of the world. Yet some kinds of tense operators are better than others. Compare an ideology that contains the standard Priorian tense operators ‘At some time in the past...’ and ‘At some time in the future...’ to an ideology that contains fine-grained weekday operators like ‘It has at some time no more recently than this past Sunday been the case that...’ and ‘It will at some time no later than next Monday be the case that...’ In honor of the old Germanic calendar, call these the Germanic operators. An ideology that includes the Priorian tense operators is better than an ideology that includes the Germanic tense operators. This is not merely because a system that uses the Germanic operators is expressively inadequate, though it is. It is also not because the Germanic operators are entirely unfamiliar and unmotivated. Imagine a civilization that believes the very structure of the world is organized around the Norse pantheon. To them it makes perfect sense to use an ideology with operators organized by day of the week. It is even conceivable that this imagined civilization gets it right. Yet an ideology that includes the Priorian operators is better because it more accurately characterizes how time is actually structured.

I use ‘Θ’ to regiment claims about comparative correctness. ‘Θ’ deviates from Sider’s ‘∼’ in that ‘Θ’ is a two-place operator that takes as arguments entire ideologies. Call the ideology containing the Priorian tense operators $I_P$ and the ideology containing the Germanic tense operators $I_G$. To say $Θ(I_P, I_G)$ is to say that the Priorian ideology better corresponds to the features of the world than the Germanic ideology.

I offer ‘Θ’ in place of Sider’s ‘∼’ for several reasons. First, many of the examples I used throughout are of comparative correctness. Second, comparative correctness is for many more intuitive than absolute correctness. Third, metaphysical disputes will (almost) always be evaluated by comparative correctness. Fourth, any attempt to define comparative correctness in terms of absolute correctness faces technical
difficulties. Since comparative correctness is methodologically essential and absolute correctness is not, it is better to start with comparative correctness and leave absolute correctness as something to aspire to.\textsuperscript{34}

There are many factors that go into theory choice. On my account, though, the only way a theory’s ideology matters is when it is more, or less, correct than the rival theory’s ideology. When resolving a metaphysical dispute, determine which – if any – has the more correct ideology, and then ignore everything else having to do with ideology.

Take the dispute between presentism and four-dimensionalism, or at any rate the dispute between one particular kind of presentism and one particular kind of four-dimensionalism. Hold fixed the background ideology of each theory. The ideology of the presentist theory also includes tense operators (e.g. ‘P’ and ‘F’). The ideology of the four-dimensionalist theory instead includes a monadic predicate for times (‘T’), a three-place predicate for temporally relativized parthood (‘TP’), and a two-place predicate for temporal ordering (‘<’). Evaluating the ideologies of these two theories requires answering a single question: is ‘Θ(\{P, F\}, \{T, TP, <\})’ true or false? If true, then presentism wins on ideological considerations. If false, then four-dimensionalism wins – unless, somehow, ‘Θ(\{T, TP, <\}, \{P, F\})’ is also false, in which case neither has the better ideology.

Finally, I have adamantly insisted on two claims: that non-ontic structure is real, and that nothing is nor could be non-ontic structure. Non-ontic structure is not a thing. ‘Thing’, as I use it, is the most general count noun. So if ‘thing’ can’t be used to pick out non-ontic structure, the word ‘structure’ must itself be a non-count noun like ‘weather’ and ‘courage’. Assuming the language here is perspicuous, it follows that structure cannot be counted. It makes no sense to say that there are two weathers. Likewise, it makes no sense to say that there are two structures. Of

\textsuperscript{34}Cf. Sider (2011): 7.11. Schaffer (2014b) pushes a similar line.
course, there is a use of ‘structure’ on which it does make sense to say that there are two structures. But this is a cognate count noun and not the expression I mean. ‘Experience’ suffers from the same ambiguity. Someone can have many experiences and someone can have much experience, but ‘experience’ is in the first case a count noun and in the second a non-count noun. ‘Structure’, as used to characterize the metaphysical structure posited by non-ontic maximal realism, is a non-count noun.

Structure cannot be counted. Yet the inability to count structure does not entail that it is somehow not real.\textsuperscript{35} Even if we accept the Quinean slogan, “no entity without identity,” reality is not exhausted by these well-individuated entities (“No reality without an entity? Not always!”).\textsuperscript{36} Structure can be measured. The world may have more structure than we think it has, the world may have no temporal structure, etc. So there is some sense to be made of quantification over structure.

How, then, should we formalize seemingly indispensable claims about such features? Standard first-order quantification will not work here since it is essentially tied to counting. Two alternatives come to mind. First, quantification over structure might be formalized using second-order quantification. Second, quantification over structure might be formalized via resources typically used to model natural language mass terms.

I think it is best to avoid second-order quantification when formalizing claims about structure. This is for two reasons. First, while second-order quantification is well-suited to characterize that to which predicates correspond (i.e. properties), it is ill-suited to characterize whatever it is that corresponds to sentential operators, truth-functional connectives, and quantifiers. Second, structure is, by definition, a

\textsuperscript{35}Many take the linguistic differences between mass terms and count terms as evidence of a corresponding difference in the world. Though it supports my view, I reject this argument. I do not think that the state of natural language says much if anything about how the world fundamentally is. My reasons for characterizing structure with mass terms are the metaphysical arguments given throughout.

\textsuperscript{36}See Quine (1969): 23.
feature of the world. It therefore is an “addition” to reality. But, plausibly, second-order quantification is less committal than what is required here.

In §3.5, I referenced “special-purpose” quantifiers to formalize claims about concrete stuff. The second approach uses these (or formally similar) quantifiers to formalize claims about structure. Call such a quantifier a non-count quantifier. If the world contained concret stuff, claims about it would employ non-count quantification. Claims about structure also involve non-count quantification, even though structure is not concrete stuff. The unifying feature of that which non-count quantification ranges over is not being stuff, but being uncountable or being non-ontic.

Mass terms are often given what can be called the ontologized interpretation. Cartwright (1970), a standard-bearer for this approach, interprets mass claims in terms of measures of masses. To use her example, “The gold of which my ring is made is the same gold as the gold of which Aunt Suzie’s ring was made,” is equivalent to “The quantity of gold of which my ring is made = the quantity of gold of which Aunt Suzie’s ring was made,” (27–28, emphasis mine). A quantity in her sense is an individual thing, what might be called a ‘bit’, ‘parcel’, or ‘mass’. Still, since quantities so-understood can be counted, the Cartwright treatment is an ontologized interpretation of mass claims.37

The model I am offering for talk of structure is decidedly not the ontologized interpretation of masses. Someone might initially doubt the coherence of this interpretation since the standard semantics for quantification involves a domain of things that serve as the values of the bound variables. I take it, however, that the standard semantics is standard not because it is the only way to model quantification but because it was developed without non-things in mind.

These differences can be encoded formally by some additional bits of machinery:

37For similar quantity-like approaches see, Burge (1977); Chappell (1970). There are also other ontologized interpretations that are not based on the Cartwright quantity model. Following Quine (1960a), ‘gold’ can be analyzed into something like ‘the mereological fusion of all the gold’.
(1) a stock of variables, $\alpha_1 \ldots \alpha_n$, with the accompanying quantifier ‘$\mathcal{H}$’, which existentially quantifies over structure and (2) a two-place predicate that links structure to corresponding bits of ideology. For instance, ‘$\mathcal{H}\alpha (C\alpha '◊')$’ is interpreted as “Some structure is such that it corresponds to ‘◊’, the possibility operator.” Quantification over structure can also be mixed with quantification over things, as in ‘$\mathcal{H}\alpha \exists x (C\alpha x)$’, the claim that there is some structure that corresponds to some ideology.

4.5 Conclusion

In this chapter, I have argued for a distinction between the things in the world and the non-ontic features of the world. The corresponding distinction in theory-crafting is that between ontic ideology and non-ontic ideology. Ontic ideology is ideology that corresponds to things in the world. There are expressions that, like predicates and names, are suited to correspond to things in the world. There are also expressions that are suited to correspond to non-ontic features. Among these expressions are the truth-functional connectives, quantifiers, and modal operators. Metaphysicians have worked extensively with non-ontic ideology. We have been led to believe, falsely, that such ideology either picks out things or pick out nothing at all. But non-ontic ideology is in fact just as “objective” as ontic ideology.

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38 Compare to McKay (2015).
5.1 Introduction

In the previous four chapters, I’ve developed and motivated my account of ideology. I’ve argued for a realist conception of ideology, one where the ideology of a theory is to be judged by the extent to which it matches features of the world, features that are either ontic (like natural properties) or non-ontic (like quantificational structure).

All of that concerns the nature of ideological correspondence. This chapter is primarily about the accompanying methodology. Given that we should endorse theories with ideologies we have reason to believe better correspond to the features of the world, how do we go about determining which theories meet that condition? I think the answer to this question is surprisingly subtle – certainly more subtle than what is suggested by current work on the topic. In this chapter I will develop and motivate a principle of ideological parsimony. This principle promises to shed light on nearly every extant dispute in metaphysics.

In § 5.2, I discuss some broad issues concerning theory choice. First, I give the standard distinction between pragmatic and epistemic virtues. Then, I argue for the existence of fidelic virtues, virtues that indicate a theory’s correctness or fidelity. Ideological externalists should try to maximize both epistemic and fidelic

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1In other words, what is the epistemology of claims concerning ‘Θ’?
virtues. Next, I discuss how parsimony is used in metaphysical disputes. I start with a discussion of ontological parsimony. A theory’s ontology can be measured in two different ways. These two ways provide two distinct principles of ontological parsimony. After discussing these principles, I identify the analogous principles for ideological parsimony. I end this section with a puzzle about the relationship between qualitative ontological parsimony and quantitative ideological parsimony.

According to (Cowling, 2013), we should not try to minimize the number of primitives in our theories but should rather try to minimize the number of kinds of primitives. Broadly speaking, I agree. In § 5.3, I critically discuss two arguments Cowling gives in favor of this principle of parsimony. I then highlight one difficulty with this principle, that of specifying precisely what an ideological kind is. I discuss two alternatives and settle on a robust conception, one where ideological kinds are sparse and demarcate objective differences in the world.

Unfortunately, a robust conception of ideological kinds threatens to generate counterintuitive (and potentially absurd) results. In § 5.4, I argue that Cowling’s method for establishing sameness of kind won’t work. To show this, I develop two arguments. In § 5.4.1, I show that the method for establishing sameness of kind suggested by Cowling leads to an explosion of being. Because it is easy to define quantifiers in terms of other quantifiers, additional quantifiers do not count against the parsimony of a theory. This result should give pause even to those who (like me) are sympathetic toward quantifier pluralism. In § 5.4.2, I argue that interdefinability is independent of sameness of kind. Assuming the transitivity of ‘sameness of kind’, the interdefinability approach entails that ideological kinds cross-cut in many implausible ways. In § 5.4.3, I refine Cowling’s principle of parsimony. I argue that a principle of ideological parsimony must be sensitive to syntactic category.

²Here and throughout I use ‘parsimony’ and ‘simplicity’ interchangeably.
5.2 Virtue-driven Metaphysics

As I discussed in the Preface, my approach to metaphysics is in line with the theory-crafting methodology and not the consensus-building or introspective methodologies. The distinguishing feature of this methodology is the belief that metaphysicians develop competing theories that describe how the world is and then evaluate their relative merits. Our commitments (ontological, ideological, and otherwise) fall out of our choice of theory.

Naturally, this raises the issue of how the merits of theories are evaluated. In this section, I first discuss how the issue has been standardly addressed. Most commonly, theories are evaluated on the extent to which they exhibit theoretical virtues. I then argue that the notion of a theoretical virtue should be expanded to accommodate ideological externalism. Next, I discuss different principles of parsimony and their relative popularity. I end this section by developing a puzzle about the relationship between ontological parsimony and ideological parsimony.

5.2.1 Parsimony in Metaphysics and Fidelic Virtues

Most theory-crafting metaphysicians endorse what I will call the virtue methodology. According to the virtue methodology, one theory is more worthy of endorsement than another insofar as it is more virtuous. A theory’s overall virtue is measured as a function of its more specific virtues. The interplay between the virtues is often complicated and few endorse strict means for weighing them against each other. But, in practice, metaphysicians who adopt the virtue methodology try to compare

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3See Lewis (1986); Paul (2012); Sider (2011) for the theory-crafting methodology in action. And see Nolan (2015a, 2016) for interesting commentary.

4See Lewis (1986); Nolan (2015b); Paul (2012); Quine (1948); Schaffer (2014a); Sider (2013). The virtue methodology need not be exclusive to theory-crafting, though its application within other methodologies is non-obvious.

metaphysical theories on a particular virtue. Their comparisons are admittedly incomplete but nonetheless effective for generating reasons to favor one theory over another.

The virtue most often compared by virtue-driven metaphysicians is parsimony. These comparisons of parsimony have been used to develop arguments for mereological nihilism, bundle theory, materialism, and nominalism. Frankly, comparisons of relative parsimony are commonplace and seem to have a lot of clout. It is for this reason especially important to consider why and to what extent arguments that appeal to parsimony do or do not work.

Broadly speaking, virtue-driven metaphysicians have recognized two distinct reasons to care about some of a theory’s properties. More precisely, they have recognized that there are two distinct attributes of a theory with which a property might be associated. First, a property might indicate a theory’s usefulness. Such a property is typically called a *pragmatic virtue*. Someone might think that parsimony is a pragmatic virtue because a simpler theory, when compared to a more complex theory, is easier to understand. A pragmatic virtue so conceived has to do with the relationship between theory and theorizer, broadly construed. Alternatively, a property might indicate a theory’s truth. Such a virtue is typically called an *epistemic virtue*. Someone might think that parsimony is an epistemic virtue because a simpler theory, when compared to a more complex theory, is more likely to be true. These associations are

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6 Naturally, there is disagreement on what is and what is not a theoretical virtue. Some commonly cited (perhaps overlapping) virtues include: conservatism, consistency, elegance, empirical adequacy, fertility, strength, and unification. I cannot hope to cover all of these. Even consistency and empirical adequacy, to which the label “virtue” might be insulting, are beyond the scope of what I can discuss here. Furthermore, I don’t have anything particularly interesting to say about how to identify and weigh the different virtues. I take it that a minimum requirement is that there is some argument or reason for taking it some properties of a theory as a virtue. We don’t simply will it into virtuehood. But beyond that, I will try to remain silent on why these other properties might be virtues and how they should be weighted.

conceptually distinct. A property that is considered a pragmatic virtue need not be considered an epistemic virtue, and vice versa.

Typically, a virtue-driven metaphysician privileges epistemic virtues over pragmatic virtues. She might judge a pragmatically virtuous theory as better than pragmatically vicious but otherwise equal theory. But she prefers an epistemically virtuous and pragmatically vicious theory to an epistemically vicious and pragmatically virtuous theory. Truth is queen.

Virtue-driven metaphysicians who are also ideological externalists should acknowledge a third reason to care about some of a theory’s properties. This reason builds off a notion that I’ve called correctness. Recall my discussion of Putnam’s model-theoretic argument from § 2.3.1. There, I argued that realists are interested in a sense of “getting things right” that is distinct from truth. As I would phrase it, the goal is not only to have a theory that is true but to have a theory that has an ideology that corresponds to the features of the world. This correctness condition is conceptually distinct from truth and the class of correct theories cuts across the class of true theories. For instance, a color theory that employs the predicate ‘grue’ might be true but nonetheless incorrect because it fails to use the right ideology. Likewise, a color theory that employs the predicate ‘green’ might be correct insofar as it uses the right ideology but nonetheless false because it misdescribes the world – e.g. by describing Taylor Swift’s lipstick as green.

Just as a property might indicate a theory’s truth, so too might a property indicate a theory’s correctness. Because a theory’s correctness is just the fidelity of its representation of the world, I will call such a property a fidelic virtue. Fidelic virtue and epistemic virtue are conceptually distinct in the same way that pragmatic virtue and epistemic virtue are. Whether or not conservatism is a pragmatic virtue has little bearing on whether or not it is an epistemic virtue. Likewise, whether or not consistency is an epistemic virtue has little bearing on whether or not it is a fidelic
virtue. These three notions are conceptually distinct.

An ideological externalist wants a theory that is both true and correct. If she is also a virtue-driven metaphysician, she should care about fidelic virtues. In fact, she should care about fidelic virtues as much as epistemic virtues. Whereas she might privilege epistemic virtues over pragmatic virtues when evaluating rival theories, she should not privilege epistemic virtues over fidelic virtues. This is for precisely the same reason the ideological externalist first endorsed the correctness constraint: truth is by itself unable to account for the objective differences between competing theories. Truth is too forgiving a monarch; she needs a strict Hand.

The parity between epistemic and fidelic virtues seems to me the natural result of combining ideological externalism and virtue-driven metaphysics. But as far as I can tell no one has clearly articulated it in this way. My characterization of theoretical virtues deviates from Sider’s approach. In Sider (2011), he says very little about theoretical virtues. He does gesture toward something like the distinction I have in mind when he says, in a discussion of a Lewisian conception of law-hood, that “theories based on bizarre, non-joint-carving classifications are unexplanatory even when true. Theories whose basic notions fail badly to carve at the joints fail badly as theories... for their inner workings fail to mirror the inner workings of the world,” (27). But it’s unclear precisely how his use of ‘unexplanatory’ relates to the goals of theory choice. Moreover, in Sider (2013), he appeals to ideological simplicity because “ideologically simpler theories are more likely to be true,” (3). As I understand him, Sider thinks all virtues relevant to theory choice are part of a unified class, in that the presence of each carries the same implications. That is, every theoretical virtue is indicative of both the truth and the correctness of a theory. (Pragmatic virtues, on this approach, don’t really make the cut.) So a property is an epistemic virtue if and only if it is a fidelic virtue.

Cowling (2013) might recognize the distinction between epistemic and fidelic
virtues, but he isn’t explicit. He, like Sider, says that parsimony is an epistemic virtue. But his gloss on epistemic virtues is less truth-oriented than the one I gave. He says an epistemic virtue is “a feature that makes belief in a theory better justified than belief in otherwise equally good rivals,” (3890). Justification is often linked to truth, and Cowling later quotes the above passage from Sider without critique. So it seems reasonable to interpret Cowling as also thinking all fidelic virtues are epistemic virtues. But maybe not. Maybe Cowling’s use of justification goes beyond mere truth. Either way, Cowling doesn’t clearly distinguish epistemic virtues from fidelic virtues.

I have argued that truth comes apart from correctness. There are many theories that are true but radically incorrect and many theories that are correct but wildly false. Both truth and correctness, however, are crucial components of theory choice. The virtue-driven metaphysician should be sensitive to this fact. She should acknowledge that there is a class of properties that indicate a theory’s truth, a class of properties that indicate a theory’s correctness, and that these classes may or may not overlap.

5.2.2 The Eightfold Path of Parsimony

Virtue-driven metaphysicians by and large endorse the Ockham’s Razor understanding of parsimony: do not multiply entities beyond necessity. Yet that slogan is itself up for interpretation. Some think that a theory’s parsimony is measured by a literal counting of the entities posited by the theory. They endorse a principle of quantitative ontological parsimony. Within the Quinean paradigm, this type of parsimony is measured by the size of the theory’s domain, by how many independent

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8 The principle now called ‘Ockham’s Razor’ may or may not be one Ockham himself endorsed. See Thorburn (1918).

9 Baker (2003); Nolan (1997); Tallant (2013)
dent entities are needed to satisfy the sentences of the theory. So those who endorse a principle of quantitative parsimony prefer theories with smaller domains. Others care very little about the size of the domain. What matters to them is the number of kinds of things in the domain. They endorse a principle of qualitative ontological parsimony.\textsuperscript{10}

To illustrate the impact the difference between these principles has on theory choice, consider how they measure Lewis’ theory of modal realism. According to Lewis, the world we inhabit is just one among many concrete possible worlds. When we talk about what actually exists, we in effect restrict our statements to the inhabitants of our world. But there are many more cats, cows, and clowns than those located in the actual world. To my knowledge, no clowns have been governor of New York. But Lewis thinks there is such a clown (technically, he thinks there is a world causally removed from ours in which a clown governs a state that is qualitatively identical to New York). Likewise, for any possible way an entity might be, there is an entity that is that way.

On the face of it, Lewisian modal realism seems to have a massively bloated ontology. But there is a plausible sense in which it is no more bloated than an ordinary ontology. According to Lewis, possible clowns are just like actual clowns. Possible clowns and actual clowns are of the same ontological kind. Merely possible clowns therefore do not count against the qualitative ontological parsimony of her theory. Similarly, Lewis’ possible worlds do not count against the the qualitative ontological parsimony of her theory. The competing theory, so some argue, is not so lucky. Someone who endorses actualism denies the existence of merely possible clowns and so (plausibly) has a more quantitatively parsimonious theory than Lewis’ theory. But the actualist’s possible worlds are not of the same ontological kind as the concrete world we inhabit. So her theory is less qualitatively parsimonious than

\textsuperscript{10}Lewis (1973)
Lewis.

Of course the relative simplicity of actualism and modal realism is a fraught matter. Nevertheless what I sketched above is illustrative of how a metaphysical dispute can be shaped by different principles of parsimony. Which of the two principles someone favors will play a role in which of the two theories she finds more virtuous and – if she is truly committed to her methodology – will play a role in which of the two theories she endorses. Consequently, a metaphysical dispute can sometimes be traced back to a prior disagreement about how to measure a theory’s parsimony.

Though metaphysicians usually understand parsimony as a feature of a theory’s ontology, some extended it to cover a theory’s ideology. Lewis, as I mentioned in §1.2 is one of the first and most prominent metaphysicians to endorse a controversial theory on the basis of its ideological parsimony. It’s not entirely clear, though, to what extant Lewis takes ideological parsimony as a virtue in its own right. In motivating his modal realism, he acknowledges its ability “to reduce the diversity of notions we must accept as primitive” as “[improving] the unity and economy of the theory that is our professional concern – total theory, the whole of what we take to be true.” This way of putting it suggests that ideological parsimony correlates with other virtues but is not itself a virtue. Sider, however, explicitly endorses ideological simplicity as a virtue. In Sider (2013), he argues for compositional nihilism on the bases that “ideologically simpler theories are more likely to be true,” (3). Others who have at least tentatively endorsed ideological parsimony as a virtue include: Cowling (2013); Schaffer (2014a); Turner (2015).

Just as with ontology, parsimony can be connected to ideology in two different ways.

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12Lewis (1986): 4

13C.f. Nolan (2015a) Section 3
The ideology of a theory is its stock of undefined terms. Someone might think that a theory’s parsimony is measured by the number of undefined terms contained in its ideology. She endorses a principle of \textit{quantitative ideological parsimony}.\footnote{\textsuperscript{14}} Because she endorses this principle, she prefers a theory with a smaller number of primitive expressions over a theory with a larger number of primitive expressions. Someone might instead think that a theory’s parsimony is measured by the number of kinds of ideology and care very little about how well-populated those kinds are. Such a person endorses a principle of \textit{qualitative ideological parsimony}. As with its ontological cousin, such a principle identifies some broader classification at which parsimony is measured. It’s not obvious what this broader classification is – a point I belabor in \S 5.3.2. Intuitively, though, ideological kinds can be individuated by topic. For instance, there is an ideological kind corresponding to color. All color predicates like ‘green’, ‘chartreuse’, and ‘Pantone 448C’ are of this kind, as are relational predicates like ‘is more saturated than’. Similarly, there is an ideological kind corresponding to modality. Primitive modal operators, predicates like ‘possibly true’ and ‘consistency’, as well as primitive dispositional predicates like ‘fragile’ are of this kind.

There are, then, four different principles of parsimony relevant to virtue-driven metaphysics: quantitative ontological parsimony, qualitative ontological parsimony, quantitative ideological parsimony, and qualitative ideological parsimony. Furthermore, there are two different reasons to adopt any of these principles: either the principle helps in discerning the true from the false, or the principle helps discerning the correct from the incorrect. Thus, there are in total eight different approaches to parsimony. For the virtue-driven metaphysician, it’s a conceptually open question

\footnote{\textsuperscript{14} Much of what I say is from \cite{Cowling2013, Cameron2012}. Also makes this distinction.}

\footnote{As with ontology, there is an issue in comparing the relative parsimony of theories with substantially different ideologies. We might circumvent this problem by restricting ourselves to overlapping subsets of ideology. That is, when making arguments that involve ideological parsimony, we should only consider theories for which we can identify some commonality. In what follows I mostly ignore this issue.}
which should be taken and which should not.

I’ll skip over reasons for and against principles of ontological parsimony because I don’t have much to add to what has already been said. But what principle of ideological parsimony should be adopted, and for what reason? An ideological externalist thinks a theory’s ideology is evaluated by the extent to which it correspond to features of the world and so, plausibly, should prefer ideologically parsimonious theories for fidelic reasons. Yet she might also have epistemic reasons.

Here’s an argument for the conclusion that some form of ideological parsimony is an epistemic virtue. A theory should avoid saying too much about how the world is. That is, it should avoid making false claims. The larger a theory’s ideology, the more liable it is to say something false. To illustrate, assume that mereological nihilism is true. The sentence ‘\(\exists x \exists y (x \text{ is a proper part of } y)\)’ is therefore false.\(^{17}\) Theories that don’t include ‘proper part’ in their ideologies won’t even be able to state this claim and as a result, when compared to theories that do include ‘proper part’, they are less liable to say something false about mereology. A lack of expressive power helps a theory avoid making false claims.\(^{18}\)

This argument – call it the argument from expressive paucity – provides a reason to take both quantitative and qualitative ideological parsimony as epistemic virtues. But the strength of the reason is almost entirely dependent on background

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\(^{16}\)See Huemer (2009) for a helpful, though critical, survey.

\(^{17}\)More precisely, that claim is false when interpreted as intended. The situation might get more complicated when meta-semantic theses like reference magnetism are involved. I ignore the issue here.

\(^{18}\)Objection: should a theory really avoid saying false things? How else could we engage in counterfactual reasoning, reasoning that by definition involves false claims? Reply: There is a distinction between what a theory says and what theorizers say when reasoning about theories. I might, for instance, contemplate the possibility of there being a seventh and eighth type of quark: the left quark and the right quark. I will, of course, need to employ some ideology to reason about these two quarks. Because there are no left and right quarks, I will say many false things in my contemplation. But all of this does not entail that the theory of quarks I endorse contains the ideology I used, even if my contemplation is an essential part of coming to endorse that theory.
beliefs concerning when and in what respects a theory says something false. Suppose that the extent to which a theory says something false is measured by the number of false propositions it asserts. On some accounts, the proposition expressed by ‘\(\exists x \exists y (x \text{ is a proper part of } y)\)’ is distinct from the proposition expressed by ‘\(\exists x \exists y (x \text{ is a part of } y \text{ and } x \neq y)\)’. If that’s right, then an ideology containing ‘parthood’, ‘\(=\)’, and ‘proper parthood’ will enable a theory to say more false things than an ideology containing just ‘proper parthood’. Consequently, the argument from expressive paucity gives a strong epistemic reason to endorse the principle of quantitative ideological parsimony. On other accounts, though, the two sentences express the same proposition. The argument from expressive paucity then doesn’t as strongly support quantitative ideological parsimony.

The argument from expressive paucity give some reason to consider ideological parsimony an epistemic virtue. But what specific principle best captures this reason is highly contingent. Thankfully, what follows is not affected by this issue.

5.2.3 A Puzzle About Parsimony

My presentation of the eight approaches to parsimony implies that they are all independent and independently motivated. But that’s not the case. In this section, I argue that the principle of qualitative ontological parsimony is functionally equivalent to a restricted principle of quantitative ideological parsimony. Given that most virtue-driven metaphysicians recognize qualitative ontological parsimony as a virtue, this gives yet another reason to care about a theory’s ideology.

Recall Lewis’ remarks on modal realism. He thinks that the view comes at no significant cost with respect to parsimony. That is because we are already committed to the existence of one concrete world: ours. Adding more concrete worlds to the theory’s ontology only further populates the kind. Since what matters is the number of kinds of things posited, modal realism is as parsimonious as its rivals. But how
is it determined what kinds of things there are, such that modal realism posits no additional kinds? A natural thought is that the kinds of things a theory posits is determined by the primitive predicates it employs. That is to say, positing a new kind amounts to introducing a new undefined predicate. Lewis employs the predicate ‘is spatiotemporally related to’ in his characterization of the world we inhabit, saying something like “x is the world we inhabit when everything spatiotemporally related to us is both spatiotemporally related to it and a part of it.” Lewis employs the same terminology in his characterization of merely possible worlds, saying something like “x is a merely possible world when nothing spatiotemporally related to us is spatiotemporally related to it and everything spatiotemporally related to it is a part of it.” The practice of individuating ontological kinds through the use of undefined predicates is not unique to Lewis, If someone’s ontology includes sets, she will include a predicate, ‘S’, to make claims about those sets. If her ontology also includes sui generis numbers, she will refuse to reduce claims about them to claims about sets. She will use an undefined predicate, ‘N’, to make claims about those numbers.

But all this suggest that qualitative ontological parsimony follows quantitative ideological parsimony. In fact, qualitative ontological parsimony is entirely equivalent to a form of quantitative ideological parsimony restricted to predicates. Such a principle says that a theory is parsimonious to the extent that it includes fewer primitive predicates. A theory will be relatively predicate parsimonious just in case it is qualitatively ontologically parsimonious, and vice versa.¹⁹

This tight correlation is puzzling because the notion of an ontological kind seems distinct from the notion of a bit of ideology. Nevertheless, the correlation seems justified by the way metaphysicians often talk about ontological kinds. We often ask whether or not a theory quantifies over a kind of entity. But what does it mean to quantify over a kind of entity? Take the sentence “Widget and Igby have at least

¹⁹Compare to Pickel and Mantegani (2012): Section IV.
one feature in common – both are cats.” A first-pass regimentation of this sentence looks like this:

$$\exists x, y, p(x = \text{Widget}, y = \text{Igby}, p \text{ is the property being a cat, and both } x \text{ and } y \text{ instantiate } p)$$

This regimentation quantifies over at least two kinds of entities: cats and properties. It does this because it employs variables and predicates to pick out cats and properties. That is, it identifies ontological kinds through the use of ideology. Similarly, if someone were to offer a set-theoretic reduction of properties, she would give something like the following regimentation:

$$\exists x, y, s(x = \text{Widget}, y = \text{Igby}, s \text{ is a set of all cats, and both } x \text{ and } y \text{ are members of } s)$$

We say that the first regimentation quantifies over a property and that the second quantifies over a set. But to quantify over a property or a set is just to use a predicate that ranges over properties or sets in a quantified sentence. More generally, a commitment to an ontological kind is determined by the presence or absence of some unique predicate. Thus all differences in what ontological kinds a theory is committed to come with differences in the bits of ideology the theory employs.

Of course, on my account there will be cases of quantitative ideological parsimony that aren’t equivalent to qualitative ontological parsimony. A theory including primitive tense and modal operators is less quantitatively parsimonious than a theory including primitive tense operators but no modal ideology whatsoever, despite both theories agreeing on all matters ontological. Nevertheless, the fact that quantitative ideological parsimony subsumes qualitative ontological parsimony calls into question the implicit assumption that qualitative ontological parsimony is the most well-motivated principle of parsimony.
5.3 Cowling and Ideological Kinds

In §5.3.1 I sketch two arguments given by Cowling (2013) in defense of a principle of qualitative ideological parsimony. These arguments turn on a particular approach to ideological kinds. In §5.3.2 I try clarify this approach. In particular, I try to clarify what an ideological kind is and how two bits of ideology can be shown to be of the same kind.

But first I need to flag something. In §1.2 I discussed alternative answers to the identity question. While I argued for a linguistic answer, not much of the subsequent discussion depended on it. Here it starts to matter. It seems like Cowling gives a semantic answer, identifying bits of ideology with particular concepts. For most of the chapter, I will ignore this difference and recast what he says in a way that is in line with how I have already discussed ideology. Later, I will show why the difference matters.

5.3.1 Arguments for Qualitative Ideological Parsimony

Cowling’s first argument for qualitative ideological parsimony is its ability to avoid arbitrariness. The vocabulary of metaphysicians contains many tightly connected expressions. The box and diamond of modal logic are interdefinable using the scheme $\Box \phi \leftrightarrow \neg \Diamond \neg \phi$. Similarly, ‘intrinsic property’ and ‘duplicate’ are interdefinable. Someone could take ‘duplicate’ as primitive and define ‘intrinsic property’ as:

$$F \text{ is an intrinsic property } \equiv \forall x \forall y (\text{If } x \text{ is a duplicate of } y, \text{ then } (x \text{ instantiates } F \leftrightarrow y \text{ instantiates } F))$$

Or she could take ‘intrinsic property’ as primitive and define ‘duplicate’ as:

$$x \text{ is a duplicate of } y \equiv \forall F (\text{If } F \text{ is an intrinsic property, then } (x \text{ instantiates } F \leftrightarrow y \text{ instantiates } F))$$

\[20\] As discussed in chapter 4, the issue is more complex than these definitions suggest. They won’t
Likewise for mereological relations, logical operators, and so on.

If theory choice were governed by a principle of quantitative ideological parsimony, then a theory that took just ‘□’ as primitive would be more parsimonious than a theory that took both ‘□’ and ‘◊’ as primitive. There would thus be pressure to adopt the single-operator theory. But that pressure would in turn produce a pressure to make a decision between ‘□’ and ‘◊’. Such a decision would be arbitrary, and therefore objectionable. A principle of qualitative ideological parsimony would create no such pressure. Since ‘□’ and ‘◊’ are of the same ideological kind, a theory that included both as primitive would be on par with a theory that included just one. *Mutatis mutandis* for ‘intrinsic’ and ‘duplicate’, mereological relations, and other expressions located within definitional circles. That a principle of qualitative ideological parsimony helps us to avoid making arbitrary decisions is a reason to adopt it over a principle that forces arbitrary decisions.

Cowling’s arbitrariness-avoiding argument is intuitively compelling. As Sider (2011) himself says, “*which* logical concepts carve at the joints?…Similarly, which quantifier carves at the joints, ∀ or ∃? You don’t have to be a logical positivist to feel that something is wrong with these questions,” (257). Yet it’s not clear how the argument is relevant. Cowling is arguing for the claim that qualitative ideological parsimony is an epistemic virtue. That it helps us avoid making arbitrary decisions is beside the point unless making arbitrary decisions is correlated with making false claims. But there is no such correlation. The decisions are arbitrary precisely because nothing seems to hang on them.

Perhaps the arbitrariness-avoiding argument is better understood as follows. There are reasons to believe that ideological parsimony of some kind is an epistemic virtue.

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work, for instance, if properties like *being identical to Socrates* are intrinsic properties. Following Cowling’s lead, I ignore the issue here.

However, these reasons say nothing to distinguish between quantitative and qualitative parsimony. There might be other reasons though, reasons that have nothing to do with truth, for choosing between the two principles. And here is just one reason: the ability of qualitative ideological parsimony to help us avoid making arbitrary decisions.

Frankly, I don’t see how the argument gets the conclusion Cowling wants. Suppose I have reason to believe that my parents give good advice and that following their advice is conducive to making good choices. But suppose I also have no reason to believe that listening to my mother is more conducive to making good choices than listening to my father (and vice versa). It follows that, so far as making good choices goes, I have no reason to prefer the advice of either parent over the other. Now, there might be some other reason to prefer one parent’s advice. Maybe my mother gives advice that sounds to me less arbitrary, and I don’t like listening to arbitrary-sounding advice. For this reason I might prefer to listen to my mother. But by hypothesis there is no connection between advice that sounds non-arbitrary and advice that is good. It would be infelicitous of me to say that my mother’s advice is better than my father’s when it comes to making good choices. In the event that their advice conflicts, I might follow my mother’s advice. But my decision is based on which parent’s advice I more like to hear, not on which parent’s advice leads to better choices. My decision therefore says nothing against the quality of my father’s advice – except that it sounds more arbitrary.

What is true of my parents is no less true of ideological parsimony. If I have reason to believe that ideological parsimony leads to truth, but just as much reason to think that quantitative ideological parsimony leads to truth as qualitative ideological parsimony, I should weigh the two equally so far as truth is concerned. I might weigh qualitative ideological parsimony more heavily for other reasons. But my doing so says nothing against the epistemic status of quantitative ideological parsimony. It
also, for that matter, says nothing for the epistemic status of qualitative ideological parsimony beyond what was already said, that ideological parsimony is in general an epistemic virtue. The arbitrariness-avoiding argument fails to recommend qualitative ideological parsimony over quantitative ideological parsimony as an epistemic virtue.

Cowling’s second argument for qualitative ideological parsimony is that it allows for the swift resolution of seemingly shallow issues in theory choice. His primary example of a shallow issue is the choice between taking as primitive the monadic predicate ‘is perfectly natural’ and taking as primitive the dyadic predicate ‘is more natural than’. Both can be used to characterize objective similarities. But both also face technical difficulties. If theory choice were governed by a principle of qualitative ideological parsimony, someone could help herself to both notions and thereby avoid the difficulties each faces individually. Though he does not discuss this application, the argument can be extended to a seemingly shallow issue in modal logic. Some have argued that there are ordinary language claims that cannot be captured by a quantified modal logic using only ‘□’ and ‘◊’ – e.g. “It might have been that everyone who is in fact rich was poor.” The ideology must be supplemented with some sort of actuality operator. If theory choice followed the quantitative approach to ideology, this issue would force a decision between expressive adequacy and minor ideological bloat. But since (intuitively) the actuality operator is of the same kind as ‘□’ and ‘◊’. A principle of qualitative ideological parsimony forces no such decision.

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22 For absolute naturalness: how to supply a partial ordering of more or less natural properties. For relative naturalness: how to accommodate the possibility that naturalness is not well-founded.

23 The example is from Fera and Williamson (2005): 4. ‘◊∀x(Rx → Px)’ says nothing about people who are actually rich. ‘∀x(Rx → ◊Px)’ says only that each actually rich person could be poor, not that the actually rich people are all poor together. It’s more accurate to say that the sentence cannot be captured without an actuality operator or some other machinery. Use of plural quantification gives ‘∀xx(Rxx → ◊Pxx)’ which is close to the English expression. Cowling’s argument is unaffected by this difference, though. And, at any rate, there are more powerful, though less accessible, counterexamples. See, e.g. Hazen (1990): 500.
This second argument is interesting. Yet, like the arbitrariness-avoiding argument, it fails to provide a reason to take qualitative ideological parsimony as an epistemic virtue instead of quantitative ideological parsimony. The argument attempts to circumvent difficult but “apparently insubstantial” technical issues. But when it comes to defining naturalness, either there is a genuine problem or there is not. Cowling seems to think there is not since the two options have “limited structural differences,” (3900). If there is not a genuine problem when it comes to defining naturalness – if the decision between ‘is perfectly natural’ and ‘is more natural than’ doesn’t impact the truth of the theory – then the matter is structurally analogous to the arbitrary cases discussed above. Again, there would be no reason to think that a principle of qualitative ideological parsimony is better with respect to choosing true theories.

But suppose there is a genuine problem here and neither ‘is perfectly natural’ nor ‘is more natural than’ is by itself sufficient for a theory of naturalness. Well, then there’s a great argument that a theory of naturalness requires both notions! It seems beside the point that both notions are of the same ideological kind. Suppose Abbey and Brent are the only suspects in a murder investigation. Because neither could have done it alone, I need to implicate both of them in my explanation of the murder. That they are both plumbers is beside the point; the explanation I offer has nothing to do with people’s professions. Likewise, the decision to include both ‘is perfectly natural’ and ‘is more natural than’ as primitive predicates has nothing to do with ideological parsimony.

5.3.2 Ideological Kinds and the Interdefinability Approach

Central to Cowling’s arguments for qualitative ideological parsimony is the notion of an ideological kind. But what is an ideological kind?

Cowling doubts that a plausible reductive account of ideological kindhood could ever be given. He does, however, say that there are “straightforward” examples, citing
“necessity and possibility in modality, parthood and overlap,” (3897). Elsewhere, he claims that existential and universal quantification, ‘is intrinsic’ and ‘duplicate, ‘perfectly natural’ and ‘is more natural than’, modal operators and essence and actuality, and identity and composition all (partially) constitute ideological kinds.[24]

Examples are great, but they underdetermine the account. There are two importantly different conceptions of what an ideological kind is.[25] On a sparse conception, ideological kinds are like ontological categories in that they exhibit some privileged demarcation of the world. These kinds are jealous; anything that is a member of one kind cannot be a member of another kind. Sameness of kind, understood this way, is an equivalence relation. But there is also an abundant conception. On this conception, ideological kinds are like plentitudinous properties: if there is some way two bits of ideology can be grouped, then there is some ideological kind that groups them in just that way. These groupings cross-cut. It is possible for one term to be of the same kind as a second, for the second term to be of the same kind as a third, and for the first term to not be of the same kind as the third.[26] Saying that two bits of ideology are “of the same kind”, on this conception, is relative to some goal. Just like there are the “relevant” properties for some discourse, there are the “relevant” ideological kinds.

Cowling can’t endorse the abundant conception without abandoning his application of qualitative parsimony. Very early on, he endorses an objective conception of ideology, one where “ideology is no less a part of the world’s metaphysical structure than ontology,” (3893). While Cowling’s commitment to the objectivity of ideology is strictly speaking consistent with the abundant conception of kindhood, the two

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[24] He also approvingly cites Sider’s example of logical operators that I quote in § 2.4 and above.

[25] Thanks to Mike Rea for suggesting this distinction.

[26] For example: ‘true’ and ‘justifies’ share a kind (epistemological ideology), ‘justifies’ and ‘proper part’ share a kind (relational ideology), but ‘true’ and ‘proper part’ do not share a kind – or at any rate share a different kind.
make an odd pair.

More importantly, most of Cowling’s arguments only work on the sparse conception. He argues that Lewis’s modal realism fails to deliver on its greatest promise: a fully reductive account of modality.\textsuperscript{27} According to a principle of qualitative ideological parsimony, a partially reductive account is of no value. So modal realism has no advantage over its competitors. The crux of this argument is the claim that the term ‘essential’ and terms like ‘possible’ and ‘necessarily’ are of the same ideological kind.\textsuperscript{28} But this claim would fall short of undermining Lewis’ reductive project on the abundant conception of ideological kinds. Cowling does not show that the kind Lewis attempts to reduce is the very same kind that groups ‘essential’, ‘possible’, and ‘necessarily’.\textsuperscript{29}

Cowling, therefore, is committed to the sparse conception of ideological kinds. But how, on this conception, are the kinds individuated? Cowling admits that he has no hard and fast rules for determining when two bits of ideology are of the same ideological kind. There are no necessary and sufficient conditions, and sameness of kind can only be established through careful metaphysical examination (3898). Cowling does give some diagnostic tools, however. Chief among them is interdefinability. If two expressions are interdefinable then, according to Cowling, there is a defeasible reason to believe they are of the same kind.

Cowling does not explicitly specify what constitutes a satisfactory definition.\textsuperscript{30}

\textsuperscript{27}See Cowling (2013): Section 7.

\textsuperscript{28}“Notice, first, that if (KI-Parsimony) [the claim that qualitative ideological parsimony is an epistemic virtue] is true, modal realism must provide an analysis of any and all concepts of the same ideological kind as modality.” (3903).

\textsuperscript{29}In fact, this might be true even on the sparse conception. Plausibly, Lewis is interested in reducing primitive intensional modal notions, not modal notions tout court. See my Parting Thoughts.

\textsuperscript{30}Below, I focus on definitions in which both the definendum and the definens are sentences. I understand there are other ways to give definitions. But this approach is required to make sense of Cowling’s paradigm examples of interdefinable terminology. See Belnap (1993) for a helpful introduction to definitions. I ignore a lot of important but presently irrelevant nuance.
At first pass, interdefinability might amount to Truth Equivalence:

**Truth Equivalence:** Two terms \( t_1 \) and \( t_2 \) are interdefinable \( \equiv \) every truth-apt sentence containing \( t_1 \) corresponds to a truth-apt sentence containing \( t_2 \) such that the former sentence is true if and only if the latter sentence is true, and vice versa.\(^{31}\)

Truth Equivalence captures all the definitions Cowling provides. But it fails to exclude intuitively inappropriate definitions. Generally:

For any predicates \( F \) and \( G \), we can introduce another predicate, \( H \), that behaves as the disjunction of \( F \) and \( G \). Anything that is \( F \) is \( H \); Anything that is \( H \) is either \( F \) or \( G \). So, by stipulation, any sentence containing \( F \) is truth-equivalent to a sentence containing \( G \) and \( H \). For instance:

\[
\exists x (Fx) \leftrightarrow \exists x (Hx \land \neg Gx) \tag{32}
\]

So by Truth Equivalence every pair of predicates is of the same ideological kind. This alone shows that Truth Equivalence won’t work as a standard of interdefinability. The interdefinability of two terms is supposed to provide a defeasible reason for their being of the same ideological kind. But there’s no such reason if every pair of predicates can be forced into a truth-equivalent definition. (Similarly cooked up equivalences can also be given for non-predicate ideology, though it is somewhat more difficult.)

This shouldn’t come as a surprise by now. In chapter 2 I spilled a lot of ink over interdefinable expressions. ‘Grue’ and ‘bleen’ are defined in a way that generates sentences truth-equivalent to sentences that use ‘green’ and ‘blue’. Maybe Cowling

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\(^{31}\)Truth-aptness is included to circumvent problem cases. Expletives like ‘shit’ and ‘damn’ can be used to create exclamations (“Shit!” and “Damn!”), sentences that are neither true nor false, and so satisfy a more flat-footed truth-equivalence condition. A similar point applies to interrogatives like ‘why’ and ‘how’. Such terminology should be absent from a language that meet the sterility constraint set out in §4.4.2. Nevertheless, it’s useful to have a condition applicable to the pseudo-English used by many metaphysicians, a language that most certainly contains expletives.

\(^{32}\)Brenner (2016) makes a similar point in Chapter Two with respect to the identity relation: “Consider the meaningless relations “gyres,” “gimbles,” and “imgimbles.” Gimbles is our primitive. So, we say \( x \text{ gyres } y = \text{df } x \text{ gimbles } y \), or \( x = y \) [and] \( x \text{ imgimbles } y = \text{df } x \text{ gyres } y \), and it is not the case that \( x \text{ gimbles } y \). For everyone, then, the imgimbles relation is the relation of identity. But then, by Cowling’s line of thought, we should concede that “gimbles,” partially in terms of which we defined the imgimbles relation, is of the same ideological kind as identity…” (31–32). This point came up during a discussion we had with Callie Phillips in Spring 2015.
is okay with a proliferation of gruesome predicates. But not in my ideology!

In order for the interdefinability of two terms to provide a defeasible reason to think they are of the same ideological kind, some further constraint needs to be placed on what constitutes an adequate definition. Here is one such constraint:

**Substitutional Equivalence:** Two terms $t_1$ and $t_2$ are interdefinable if every truth-apt sentence containing $t_1$ can be replaced with some truth-apt sentence containing $t_2$ and some minimal supplementary ideology while preserving grammaticality, truth, and validity, and vice versa. Substitutional Equivalence rules out the cheap counterexamples I gave above since it excludes definitions involving ideology that extends well beyond the interdefinable terms. Substitutional Equivalence also seems more in the spirit of Cowling’s examples of interdefinability. Simply replacing every instance of ‘□’ in a sentence with ‘¬◊¬’ generates a sentence so similar that most logic text books explicitly state this equivalence and move on. The same applies for ‘∀’ and ‘¬∃¬’ and ‘∧’ and ‘∨’, though the latter case involves 2-place connectives and so looks slightly different. Negation is the only supplementary ideology these definitions require.

But negation alone won’t be enough to cover all of Cowling’s examples. Standard systems of mereology take one mereological notion as primitive and use it to define the others. But these definitions involve more than just negation. When ‘parthood’ is the primitive mereological term, ‘overlap’ is defined as:

$$x \text{ overlaps } y =_{df} \exists z (z \text{ is a part of } x \text{ and } z \text{ is a part of } y)$$

This definition uses conjunction and existential quantification. In fact, any system of mereology will include definitions that employ ideology beyond negation. The

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33 Substitutional Equivalence has as a consequence that adverbs like ‘very’, ‘damn’, and ‘bloody’ are interdefinable. I’m happy to bite the bullet here. Swapping these terms doesn’t change the meaning of the sentence and only changes what is pragmatically conveyed. For this reason it doesn’t seem that bad to me to say that they are interdefinable. (Such expressions would also be absent from a sterile language.)

34 The form looks more similar to the other cases when written in Polish notation.
same point applies to other bits of ideology that are plausibly of the same kind, like ‘perfectly natural’ and ‘more natural than’. Even Cowling’s definitions of ‘intrinsic’ and ‘duplicate’ use quantification and instantiation, terminology that – even if conceptually related – is not of the same ideological kind.

So the minimal supplementary ideology permitted by Substitutional Equivalence extends beyond just negation. Plausibly, the minimal supplementary ideology includes other interdefinable terminology and broadly logical notions like truth-functional connectives and quantification.

5.4 Refining Kindhood

While Cowling’s arguments might not suggest a full account of ideological kinds, they do suggest a working hypothesis.\footnote{Kripke (1980): 64, 93} In this section, I argue that the working hypothesis is wrong. In particular, I argue against two claims implicit in the hypothesis: (1) the substitutional equivalence of two terms is a defeasible reason to think they are of the same ideological kind, and (2) ideological kinds are especially coarse grained. Cowling clearly endorses the first claim, with the proviso that his notion of interdefinability is something like substitutional equivalence. The second claim is more subtle. Ideological kinds are “especially coarse grained” when disputes are, in general, disputes that involve only a few ideological kinds. Cowling’s commitment to coarse-grained kinds comes out in his argument against Lewis’ modal realism (as well as his argument against Sider’s compositional nihilism). There, Cowling does not even entertain the idea that there might be more than one modal kind. Relatedly, he seems to equate giving a reductive account with eliminating a single ideological kind.\footnote{“Notice, first, that, if (KI-Parsimony) is true, modal realism must provide an analysis of any and all concepts of the same ideological kind as modality,” and the subsequent footnote: Here, I} It is in this sense that the working hypothesis claims that ideological kinds
are especially coarse grained.

5.4.1 The Explosion of Being

Here, I begin to argue against the claim that substitutional equivalence is defeasible evidence of sameness of kind. This claim suggests that quantifier pluralism, in all its different forms, is ideologically parsimonious. This parsimony can be exploited. Cowling’s argument purports to show that modal realism fails to be reductive because it employs ideology of the kind being reduced. The form of this argument can be flipped: a theory of modality that only uses ideology from previously accepted ideological kinds counts as a reductive theory of modality. Below, I show that quantifiers are substitutionally equivalent and so are plausibly of the same ideological kind. Insofar as reductive theories are preferable to their rivals, quantifier pluralist theories are preferable to their rivals. While I am very sympathetic to quantifier pluralism, I doubt that the case for it is this easy.

According to quantifier pluralism, there is at least one ideology with multiple quantifiers that is better than all ideologies with a single quantifier. I distinguish quantifier pluralism from ontological pluralism, the view on which “there are different ways, kinds, or modes of being.” Though the two views are symbiotic, quantifier pluralism is a claim about ideologies and ontological pluralism is a claim about BEING.

I also understand quantifier pluralism as a view about quantifiers that behave like

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37 More precisely, there is at least one ideology with more than one quantifier from distinct quantifier pairs that is better than all ideologies with quantifiers from a single quantifier pair, where a quantifier pair is a pair of quantifiers that exhibit duality. I remain neutral here on whether or not it is advantageous to eliminate one element of a quantifier pair. Cowling (and Sider) would not find it advantageous. I tend to think it would. An ideology that contains both and only ‘∃’ and ‘∀’, then, would not count as pluralist in this sense.

quantifiers in standard first-order logic. (I therefore bracket questions concerning other quantifiers I have previously discussed, i.e. plural, mass, and second-order quantifiers.) Quantifier pluralism stands in contrast to the "standard" position, what I will call *strict Quineanism*. According to strict Quineanism, an ideology is better when it contains just one quantifier or quantifier pair, namely those from first-order logic: ‘∃’, ‘∀’. Call these the bare quantifiers. Call the non-bare quantifiers the restricted quantifiers.

Plausibly, any total theory of the world will contain either bare or restricted quantifiers in its ideology. This commitment to quantifiers need not come from metaphysics; quantification is indispensable for mathematics and for physics. Thus, even if someone endorsed a quantifier-free theory of modality, she would still be committed to quantifiers in her total theory. A strict Quinean theory includes only a bare quantifier, ‘∃’. A quantifier pluralist theory includes multiple restricted quantifiers.

Now, quantifier pluralism is best understood as a family of more specific quantifier pluralist positions. Quantifier pluralism *simpliciter* is just the view that some multiple-quantifier ideologies are better than single-quantifier ideologies. Two pluralists could agree on that but disagree on which ideologies are better. Regardless, on the working hypothesis, there is defeasible reason to believe all quantifiers are of the same ideological kind. All restricted quantifiers are interdefinable with the bare quantifier in the following way:

For any collection of restricted quantifiers $\exists_1 \ldots \exists_n$, if they are the totality of restricted quantifiers, then $\exists a(\phi) =_{df} \exists_1 a(\phi) \lor \ldots \lor \exists_n a(\phi)$.\(^{40}\)

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\(^{39}\)See Sider (2011): 9.6.4. This is not an unassailable assumption; see Dasgupta (2009); Turner (2016) for contrast. Defending the assumption, however, is well beyond what I can do here.

\(^{40}\)This definition and the next might only work if the collection of quantifiers is finite. Because all the quantifier pluralist positions I discuss posit a finite number of quantifiers, I ignore this issue. I do think, though, that there is something to be said for metaphysical theories that introduce infinite collections of quantifiers (whether the collection is enumerable or not depends on the particular theory).
Using this definition, any sentence containing the bare quantifier can be replaced with the appropriate restricted quantifier substitute. This definition meets the Substi-
tutional Equivalence constraint from \[8\ 5.3.2\] since it only helps itself to disjunction.

Likewise, restricted quantifiers can be defined in terms of the bare quantifier and other restricted quantifiers. This makes expressions that utilize the former replaceable with expressions that utilize the latter.

For any collection of quantifiers \(\exists_1 \ldots \exists_n\), if they are the totality of restricted quantifiers, then for any restricted quantifier \(\exists_x\), \(\exists_x a(\phi) =_{df} \exists a(\phi) \land \neg \exists_1 a(\phi) \land \neg \exists_{x-1} a(\phi) \land \neg \exists_{x+1} a(\phi) \land \neg \exists_n a(\phi)\)

Or, if I want to quantify over quantifiers within the definition:

For any collection of quantifiers \(\exists_1 \ldots \exists_n\), if they are the totality of restricted quantifiers, then for any restricted quantifier \(\exists_x\), \(\exists_x a(\phi) =_{df} \exists a(\phi) \land \forall \Pi((\Pi \neq \exists_x \land \Pi \neq \exists) \rightarrow \neg \Pi a(\phi))^{41}\)

Again, the definitions satisfy Substitutional Equivalence. The replacement sentences are equivalent to the originals and they use only minimal supplementary ideology\[42\]

All bare and restricted quantifiers can be given definitions that satisfy substi-
tutional equivalence. On the working hypothesis, this provides a defeasible reason to think that all bare and restricted quantifiers are of the same ideological kind\[43\]

\[41\]This definition won’t work for all versions of quantifier pluralism. Some versions might allow for overlapping restricted quantifiers. For example, an object might exist presently and exist concretely. I’m not sure how to give a definition that allows for that without specifying how the restricted quantifiers interact, which is to say I’m not sure how to give a non-committal definition. But that won’t affect my argument. The cases I discuss do not require overlapping quantifiers.

\[42\]Cf. van Inwagen (2014b) for an attack on the validity constraint. To be brief, I take van Inwa-
gen’s Deep Approach. To be even briefer, I am unconvinced by van Inwagen’s objection to the Deep Approach – one of them anyway – that “The proposal [of paraphrasing away the bare quantifiers] is unsatisfactory because the paraphrases on which it relies reduce substantive meta-ontological the-
theses to logical trivialities,” (18–19). I am unconvinced because meta-ontological theses are disputes outside the confines of theories, and so there is no expectation that the theories themselves reflect the substantivity of the dispute.

\[43\]My target here is interdefinability. But the point can be extended. The above definitions are not necessary to show that bare and restricted quantifiers are of the same ideological kind by Cowling’s standards. Cowling also says that “conceptual ties” between two bits of ideology can suggest that
Therefore, on a principle of qualitative ideological parsimony, there is a defeasible reason to think that a theory with more than one bare or restricted quantifier, when compared to a theory with only one such quantifier, is no less parsimonious.

Let me quickly develop a couple examples of quantifier pluralism at work. They will be useful in the argument that follows.

Abstracta, like the property *straightness*, are so radically different from concreta like chairs that it would be inappropriate to group the two together within our theory. Someone might say properties *subsist* and chairs *exist* — and that this difference is adequately captured by the two non-overlapping quantifiers ‘∃*subsistence*’ and ‘∃*existenz*’. Call this view *platonic pluralism*. Contrast platonic pluralism with ordinary platonism and nominalism. According to ordinary platonism, there exist these entities, abstracta, that are non-spatiotemporal and causally inert. Existence, for the ordinary platonist, is univocal; her ideology contains only one quantifier. According to nominalism, only concrete things exist, and talk of abstracta is to be eliminated or paraphrased away. While the nominalist’s ideology also includes only one quantifier, it will almost certainly include some additional ideology, whatever form it might take.

It is generally accepted that the platonism/nominalism dispute is a paradigm ex-

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44 This view is straight from McDaniel (2009), though I think I made up the name.

45 I say “almost certainly” since, maybe, there is a form of nominalism (miracle nominalism) that successfully paraphrases away talk of abstracta using only the ideological resources of ordinary platonism.
ample of the trade-off between ontology and ideology. Platonism is ideologically simple but posits a plethora of ontologically suspect entities. As van Inwagen (2004) says, “it seems very puzzling that objects should fall into two exclusive and radically different categories. Rather than suppose that this is so, it would be much more appealing to suppose that at least one of these categories is empty…” (111). Nominalism does in fact suppose that the category of abstracta is empty. But it requires a bloated ideology to do so. How bloated her ideology will be depends on the details of her theory. Following the example in van Inwagen (2008), in avoiding ontological committed to species (which are presumably abstract), the nominalist commits herself to the primitive predicate ‘conspecific’, a predicate that is unnecessary in a platonic theory. She can expect to be forced into further ideological commitments as she avoids ontological commitment to other abstracta.

Whether or not this received wisdom is accurate, platonic pluralism turns out to be an attractive view. If what I’ve said so far is right, then platonic pluralism is no less ideologically parsimonious than ordinary platonism, which means (bracketing footnote 45) it’s more parsimonious than nominalism. Along similar lines, platonic pluralism is no more ontologically loaded than ordinary platonism. So platonic pluralism is no worse than either view along either dimension. This means that it is at worst tied for last place in the parsimony contest.

Now, parsimony isn’t the only reason for choosing one theory over another. But it seems like any argument against platonic pluralism that isn’t a more general objection to quantifier pluralism is one that will apply just as well against either ordinary platonism or nominalism. In practice, platonic pluralism is more susceptible to objections like those facing ordinary platonism than those facing nominalism. The epistemological argument from Benacerraf (1973), for instance, applies just as well to both kinds of platonism. But there seem to be arguments platonic pluralism has

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46 See, e.g., Bennett (2009); van Inwagen (2008).
an easier time dealing with.

Maybe the fundamental tie regress is a case in point. When two objects are similar, there’s something they have in common – namely, the property they both instantiate. But plenty of things instantiate properties. So there must be something they have in common – namely the property they all instantiate, instantiation[47]. And now we’re off to the races.

Armstrong (1997) suggests that instantiation is not itself a relation and thus not subject to the regress. This might strike some as *ad hoc* and self-undermining. Instantiation was introduced to explain similarities between objects. If the platonist doesn’t think the similarities between instances of instantiation need to be explained, then why does she think the original similarities need explanation? But now consider what a platonic pluralist might say. “Of course the move isn’t *ad hoc*! Similarities between entities only need to be explained at the level of the material world. (Or, if I’m being more careful, the kind of explanation needed is different.) Instantiation is properly held only between objects that exist and objects that subsist. So the regress doesn’t hold.” Even if this response doesn’t work, it is less *ad hoc* than Armstrong’s response. The platonic pluralist has some ideological machinery to give weight to the distinction between objects instantiating properties and instantiation instantiating instantiation.

Platonic pluralism, on the working hypothesis, is no less parsimonious than ordinary platonism and nominalism. Further, platonic pluralism might be better situated to respond to standard objections against its competitors. The view is therefore highly motivated and deserves to be taken seriously.

Now I will discuss a quantifier pluralist theory that’s more clearly superior to its competitors. According to presentism, the only things that exist are things that exist

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[47]Note that the regress is consistent with different understandings of what properties and relations are.
presently. According to eternalism, when a thing exists has no bearing on its existence *simpliciter*. Now consider the following version of quantifier pluralism. Past, present, and future entities all exist, in the generic sense. But they exist in fundamentally different ways. Call this view *temporal pluralism*. Now, there are different ways to develop temporal pluralism. One way is to introduce three restricted quantifiers, ‘∃_{past}’, ‘∃_{present}’, and ‘∃_{future}’, that range over past, present, and future entities, respectively.\(^{48}\)

The presentism/eternalism dispute is an example of a trade-off between ontology and ideology. Eternalists eliminate A-theoretic ideology in favor of an expanded ontology.\(^{50}\) Presentists eliminate non-present entities while preserving A-theoretic ideology. The relation between temporal pluralism and eternalism is the same as that between platonic pluralism and ordinary pluralism. The pluralist position is no worse, either ontologically or ideologically.

Again, parsimony is not the only reason for choosing one theory over another. But temporal pluralists also seem to avoid most arguments given against presentists. Presentists struggle to articulate claims involving purportedly cross-time relations. Velocity, to take an especially difficult case, seems to involve a comparison of objects’ spatial positions over time. Claims about velocity are for this reason difficult for presentists to formulate, even with tense operators. Presentists also struggle to provide truthmakers for claims concerning the past, claims like “The Trojans were conquered.” These issues simply don’t arise for temporal pluralists. Their ontology

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\(^{48}\)See McDaniel’s forthcoming book for an incomplete taxonomy.

\(^{49}\)Temporal pluralism can be defined in a way that avoids overlapping quantifiers. ‘∃_{past}’ would only range over entities that are located entirely in the past, ‘∃_{present}’ would range over entities that are located in the present, even if they are also located in the past or the future. ‘∃_{future}’, surprise!, would range over entities that are located entirely in the future.

\(^{50}\)Of course, the moving spotlight theory retains A-theoretic ideology while simultaneously adopting an eternalist ontology. Many, including Cowling, criticize the view precisely for its doubly-bloated nature. See, however, Cameron (2015).
is as robust as the eternalists’. Temporal pluralists also do a decent job avoiding arguments against eternalists. Eternalists are sometimes accused of trying to ignore the obvious fact that the present is special in a way that the past and the future are not. Temporal pluralists would be found innocent of this charge. Only present things exist \textit{present}. The ontological privilege of the present is built into the quantificational ideology of the pluralist theory\textsuperscript{51}.

Temporal pluralism shares many of the advantages of presentism while avoiding many of its disadvantages. Additionally, if temporally-relativized and bare quantifiers truly are of the same ideological kind, temporal pluralism counts as a reductive theory of time. The only machinery it uses to characterize the temporal nature of the world is machinery of a kind that is already included. Temporal pluralism is more than a serious candidate – it’s the one to beat.

The working hypothesis strongly recommends quantifier pluralist positions. Maybe this is the right result. Maybe virtue-driven metaphysicians who endorse a principle of qualitative ideological parsimony should reconsider how they see various metaphysical disputes. Maybe virtue-driven metaphysicians should seek to develop new quantifier pluralist solutions to traditional problems. And maybe as a result traditional positions fall by the wayside.

This is all exciting stuff. But the suggested rise of quantifier pluralism rests on the claim that the substitutional equivalence of two terms provides a defeasible reason to think that they are of the same ideological kind. In what follows, I argue against this claim.

5.4.2 The Collapse of Ideological Kinds

Though counterintuitive, the argument in \textsection 5.4.1 only shows a consequence of the working hypothesis. It does not (to my eyes anyway) show that the hypothesis is

\textsuperscript{51}For more on these objections, see Rea (2003); Sider (2001).
wrong. Sadly, in this section I argue that it is wrong. The two claims implicit in the working hypothesis (that the substitutional equivalence of two terms is a defeasible reason to think they are of the same ideological kind, and that ideological kinds are especially coarse grained) lead to absurdity.

In § 5.3.2 I argued that sameness of kind is transitive. In what follows, I provide definitions of terminology that, by the hypothesis’ first claim, give defeasible reason to think that the terminology defined is of the same ideological kind. Specifically, I define tense operators in terms of temporally-relativized quantifiers and define temporally-relativized quantifiers in terms of bare quantifiers. But tense operators and bare quantifiers cannot be of the same ideological kind – at any rate, it’s hard for me to see at that point what an ideological kind is. More importantly, the style of this argument can be generalized. Definitions are easy to give. As a result, the working hypothesis should be abandoned.

Consider the temporally relativized quantifiers from temporal pluralism and the standard Priorian tense operators. Both behave quite differently at a syntactic level. The quantifiers allow someone to derive existential claims while the tense operators do not. But sentences using the tense operator can be matched to equivalent sentences that use temporally-relativized quantifiers:

\[ P(\phi) = df \exists_{\text{past}}t_1(\neg\exists_{\text{present}}t_2(t_1 = t_2) \land \neg\exists_{\text{future}}t_3(t_1 = t_3) \land \phi \text{ is true at } t_1) \]

That is to say, \( \phi \) is true at some time in the past if there pastly exists some time such that \( \phi \) is true at that time. Similar definitions can be given for the other Priorian tense operators ‘F’, ‘G’, and ‘H’. Interdefinability can be shown by moving from a pastly existing time to a past-tensed claim, from a presently existing time to a present-tensed claim, and from a futurely existing time to a future-tensed claim.

The above definition uses three temporally relativized quantifiers. But, as I

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\[52\text{That is, they do not if they are embedded in a system analogous to a Kripke-style modal system. See Sullivan (2012).}\]
showed in §5.4.1, these three quantifiers are of the same ideological kind. That they are all used in the definition therefore does not count against its adequacy. (Compare: an adequate definition of ‘green’ can use multiple color predicates.) The definition also requires quantification over times and the ‘true at’ predicate. But both of these are already necessary for anyone who does not include primitive tense operators in her ideology. Even some A-theorists utilize quantification over an abstract series that bears a unique relation to times in the physical world. The ‘true at’ predicate is also an expression likely required by other theories – modality, for instance. So the above definition meets the substitutional equivalence constraint set out in §5.3.2.

But trouble awaits anyone who accepts both (a) that all quantifiers are of the same ideological kind and (b) that temporally relativized quantifiers and tense operators are of the same ideological kind. On the sparse conception of kindhood it follows that all quantifiers, not just the temporally relativized ones, are of the same kind as tense operators. This is absurd. If it were true, then the flood gates would open. As I mentioned before, any plausible total theory will include quantification of some sort. All such theories, then, would incur no further cost by using tense operators. As a result, 4-dimensionalism would be an obviously inferior of a theory of time.

The trouble doesn’t stop there, for quantifiers abound. A similar result can be reached with modally-relativized quantifiers and modal operators. So all quantifiers would be of the same ideological kind as modal operators. If that’s not bad enough,

53 Furthermore, I suspect that ‘is a time’ would by Cowling’s standards be of the same ideological kind as other temporal ideology.

54 Temporally relativized quantifiers and tense operators also seem conceptually linked. They all attempt to characterize the temporal nature of the world. They are all bits of ideology that a reductive theory of time would eliminate. Again, it seems that temporally relativized quantifiers and tense operators are on Cowling’s approach more likely to be of the same ideological kind than are ‘essence’ and ‘possibly’.

55 Compare Cowling (2013): Section 6
then consider that these two results together would entail that tense operators and modal operators are of the same ideological kind! As a result, the working hypothesis would suggest that someone who includes one has little reason to exclude the other. Surely time and modality aren’t that closely linked.

Here is one last problem for the working hypothesis. For (nearly) every predicate \( \phi \) we can define its complement \( \phi' \) such that everything either satisfies the predicate or its complement. By definition, \( \phi'(x) \leftrightarrow \neg \phi(x) \) and \( \phi(x) \leftrightarrow \neg \phi'(x) \). These definitions use only minimal supplementary ideology. They are about as simple as definitions can be. So there is reason to believe that all predicates and their complements are of the same ideological kind. It would be disastrous, though, if this were the case.

Cowling is very clear that the interdefinability of two terms is neither necessary nor sufficient for their being of the same ideological kind. He says, “fixing upon the particular ideological kind is (and should be) a matter of careful, case-by-case metaphysical examination,” (3897–3898). Fair enough. But the arguments in this and the previous section suggest that interdefinability isn’t even a useful diagnostic for discerning sameness of kind. While there is something intuitive behind the idea, definitions are just too easy to give. The substitutional equivalence of two terms fails to provide even a defeasible reason to think that they are of the same ideological kind.

5.4.3 The Role of Syntax in Ideological Correspondence

Thus far, I argued that some intuitively plausible means of determining whether or not two bits of ideology are of the same kind generate absurd results. But I still endorse the principle of qualitative ideological parsimony. In this section, I give an

56 I (parenthetically) say “nearly” to avoid Russell’s Paradox and other interesting but irrelevant issues. It is enough to limit the discussion to, e.g., the predicates of physics.
account of when the introduction of a bit of ideology complicates the accompanying picture of the world and when it does not. With this idea in mind, I offer a new means of determining sameness of kind. At a minimum, the two bits of ideology must be of the same syntactic category.

Above, I mentioned that Cowling seems to endorse a semantic answer to the identity question, one where a bit of ideology is a concept and where an ideological kind is a cluster of related concepts. His identification causes important information to be lost. The syntactic nature of the terminology associated with these concepts is entirely absent. To illustrate this, consider Cowling’s discussion of modal realism’s reductive ambitions. (Now I drop the linguistic translations and present what Cowling actually says.) He says that modal realism attempts to “provide an analysis of any and all concepts of the same ideological kind as modality,” (3903). The concept of modality “include[s] at least the operators of modal logic,” but also, he eventually argues, includes accidental properties, essences, and actuality. These are surely conceptually related. But they are nonetheless importantly different. Modal operators are linguistic entities that attach to sentences. Accidental properties are properties of objects the instantiation of which vary across possible worlds. Essences are (according to Fine [1994] at least) the real definitions of objects. And actuality is (so Cowling argues) an irreducible property of a world.

Modal operators, accidental properties, essences, and actuality ascribe different features to the world. Better, modal operators, and predicates that express accidental properties, essences, and actuality ascribe different features to the world. These features are not merely different in the way that a cat is different from a dog. They are different in the way that a cat is different from a number—except even more so. The features to which these bits of ideology correspond are not even in the same ontological category. Modal operators ascribe to the world non-ontic modal structure and modal predicates ascribe to the world (or to individuals) particularized modal
properties. The concepts Cowling employs are too coarse grained to explain these differences. But perhaps concepts are not in principle too coarse grained. Some concepts do seem to track the ontological category of their objects. Perhaps concepts can be enriched in a way that is sensitive to the distinction between ontic and non-ontic features. Even so, interdefinability is not sensitive to this distinction since, in general, interdefinability is not sensitive to any ontological distinctions. Insofar as ideological kinds are partially individuated by the ontological category of their objects, interdefinability is never a good means of establishing sameness of kind. Finally, it is not merely the distinction between the ontic and the non-ontic that matters. Tense operators and temporally relativized quantifiers are importantly different. The sort of non-ontic structure they posit are different. This difference is reflected in their syntactic nature. Likewise, names and predicates are importantly different. The sort of ontic features they posit are different. Again, this difference is reflected in the terminology’s syntactic nature, a nature invisible to Cowling’s approach.

My suggestion is that the sort of feature a bit of ideology is intended to correspond to is linked to its syntactic category. A theory that quantifies over times and uses temporal predicates like ‘earlier than’ and ‘simultaneous with’ is a theory that asserts the world is temporally ontic, that its temporal nature is that of particular entities instantiating properties and standing in relations. In contrast, a theory that uses primitive tense operators is a theory that asserts the world is temporally non-ontic, and not explained by entities instantiating properties or standing in relations. Further, the sort of non-ontic structure to which tense operators correspond is different from the sort of non-ontic structure to which temporally relativized quantifiers correspond. This is reflected in their syntactic differences.

57Note that Cowling cannot object here by saying I’ve presupposed that what modal operators ascribe to the world is radically different from what modal predicates ascribe to the world. He says just as much in his brief discussion of modal eliminativism and modalism.
How a bit of ideology syntactically behaves matters a great deal in how accurately it characterizes the structure of the world. Bits of ideology that characterize the same topic but differ in their syntactic nature make different claims about the world and are therefore of different ideological kinds. Being of the same syntactic category is a necessary condition on being of the same ideological kind. It is for this reason that I reject the second claim of the working hypothesis.

Recall the discussion of theories of time in §5.4.2. There, three views were put on the table: eternalism, presentism, and temporal pluralism. Besides predicates for times and B-theoretic relations, eternalism contains no temporal ideology – it is ideologically reductive. Presentism is non-reductive and employs intensional tense operators. Temporal pluralism, I argue, is also non-reductive. It includes ideology that characterizes the temporal nature of the world, namely the quantifiers ‘∃past’, ‘∃present’, and ‘∃future’. Cowling’s mistake was to think that all non-reductive theories have the same ideological commitments. But what presentism says the world is like is importantly different from what temporal pluralism says the world is like. Temporal pluralism says that the world has A-theoretic structure. But this structure is still fully extensional. In contrast, presentism says the temporal structure of the world is intensional. The theories have different ideological commitments.

This is not the whole story about the differences between bits of ideology with different syntactic natures. For all I’ve said, tense operators and modal operators might be of the same ideological kind. To fully develop the account, I will need to say more about the sufficient conditions associated with sameness of kind. I can’t really do that here. But I can issue another promissory note: the interdefinability approach is much less vulnerable to the counterexamples I’ve developed when the terms being defined must be of the same syntactic category.
5.5 Conclusion

In this chapter I discussed the methodology that accompanies my account of ideology. While I am broadly in agreement with other virtue-driven metaphysicians, ideological externalism further complicates the process.

I also argued against Cowling’s approach to ideological parsimony. While I endorse a principle of qualitative ideological parsimony, it must take into account the syntactic nature of the ideology involved. This nature helps determine what the ideological commitments of the theory are and so helps determine the extent to which the theory should be adopted.
A.1 The Historical Roots of Ideology

Here, I discuss the historical roots of ideology.

A.1.1 Making a Historical Case

Whenever the origin of ideology is discussed, I find the story told pretty mysterious. As Sider and other contemporary metaphysicians would have it, Quine is the first to identify the distinction between ontology and ideology, the latter category seemingly created *ex nihilo*. Not much attention was then paid to ideology until Sider uses it to articulate his realist project for metaphysics, or so the story goes. While I agree ideology was not discussed much in the time between Quine and Sider (and when it was the discussion was vague and unclear), it was not a novel distinction of Quine’s. It was operating in the work of several early analytic philosophers. Here, I will restrict myself to just one example: Russell. I will show that some of what he says bears a striking resemblance to what Quine and Sider say.

First, though, I want to get clear on what it would take to show that a historical figure is operating with the same concept as that found in contemporary figures. It would be much too demanding to insist on a clear consistency in terminology (e.g. using and defining the word ‘ideology’ in the same way). But it would be too lax to settle the matter on the basis of some vague similarities between the two.

1Especially considering contemporary figures do not even agree on this point!
If all “operates with a concept of ideology” meant was “recognizes an important relationship between language and world”, then nearly every figure in the history of philosophy would count as operating with the concept of ideology.

I cannot give, let alone defend, a systematic methodology for such a project. However, here are some conditions that I think are more-or-less necessary and jointly sufficient to show that a historical figure is operating with a concept of ideology like that of Quine and Sider. Recall that I’ve identified the ideology of a theory with its stock of primitive expressions. Because even Quine and Sider are at times unclear on this identification, we can’t include it as a necessary condition. Something like it, though, will work. The figure must acknowledge a distinction between words, concepts, or notions that are primitive and those that are not. Further, she must provide some sort of answer to the criterion question. Her answer should have three components. First, she must acknowledge that we have a choice with respect to what to take as primitive – primitiveness is not preordained. Second, the choice must be significant. That is, there is some sense in which a theory’s ideology can be better than another theory’s ideology. Last, the choice is not straightforward or trivial. Choosing between different ideologies is not a matter of routine empirical investigation, nor a matter of conceptual analysis easily settled by reflecting on what we “really mean” when we use some expression. Instead, the choice is made on the basis of investigation in such a way that we can be mistaken about the satisfaction of the criterion.²

To summarize, there are four conditions on showing someone is operating with the concept of ideology.

1. She recognizes a distinction between primitive and non-primitive words (or concepts, or…)

2. She recognizes a choice in what to take as primitive.

²In other words, questions concerning choice of ideology are not easy. See Thomasson (2014).
3. She recognizes that some choices are better than others.

4. She recognizes the choice has some epistemic risk.

Without further ado, I will show that Russell satisfies these four conditions.

A.1.2 Russell’s Logical Atomism

There are a number of ways someone could show that Russell operated with a concept of ideology sufficiently similar to that of Quine and Sider. I will take his work on logical atomism, specifically his 1917-1918 lectures and his 1924 essay, as my source material. In broad terms, I think that Russell’s discussion of propositions, facts, and the relationship between the two is evidence that he is operating with a conception of ideology.

To begin, let’s consider Russell’s comparison between ordinary and logically perfect languages. According to Russell, ordinary languages like English are irrecoverably ambiguous and imprecise. Take the word ‘Piccadilly’. Russell attaches a certain meaning to that word. This meaning relates to his having had certain perceptual stimuli while walking on a street in London. I attach a very different meaning to that word, a meaning that is almost entirely exhausted by what Russell says in his lecture. Because of the different meanings we associate with the word, ‘Picadilly’ is ambiguous. But the ambiguity of English is not necessarily a bad thing. “It would be absolutely fatal if people meant the same things by their words. It would make all intercourse impossible... because the meaning you attach to your words must depend on the nature of the objects you are acquainted with, and since different people are acquainted with different objects, they would not be able to talk to each other unless they attached quite different meanings to their words,” (22–23).

3See Russell (1985): 23
While an ambiguous language like English is instrumental to interpersonal communication, it is in other ways deficient when compared to a logically perfect language. According to Russell, in the latter language “the words in a proposition would correspond one by one with the components of the corresponding fact,” (25). A logically perfect language is not perfect in every sense; it is of necessity “intolerably prolix” and “private” and therefore “a very inconvenient language indeed,” (26). Nevertheless, when doing philosophy we strive to state everything in as logically perfect a language as possible. To do so, we engage in the process of analysis, moving from an ambiguous and imprecise language to a more logically perfect language. The relationship between the analyzed expression, sentence, or language and the resulting expression, sentence, or language, I claim, shows that Russell distinguishes between the primitive and the non-primitive. Thus, Russell satisfies condition (1).

Analysis is not a straightforward process. If it were, Russell wouldn’t have bothered lecturing on it. His discussion of relations shows that we have a choice in how to analyze a proposition. Russell claims that every relation, including monadic relations, can be reduced (analyzed) to a relation of greater adicity. For example, ‘red’ is a monadic relation. But any sentence that employs ‘red’ can be reduced to a sentence that employs the dyadic relation ‘sameness-of-color’ so long as there is some standard object to relate to. For instance, “This ball is red,” can be analyzed into “This ball is the same color as strawberries.” Once we have the dyadic color relation, we can generate color relations of higher adicity simply by using the two objects multiple times – e.g. “This ball and strawberries and this ball are the same color.” Russell acknowledges this as a genuine option since “there is no objection to that [analysis] either empirically or logically,” (35). Thus, we have a choice in how to analyze an expression – that is to say, a choice in what to take as primitive. Russell satisfies condition (2).

Russell endorses the (alleged) truism that the world contains facts and we have
beliefs that refer to facts and are made true or false by them. He emphasizes that these facts are part of the objective world: “They are not created by our thought or beliefs except in special cases,” (41). A logically perfect language, if everything goes according to plan, would be “completely analytic” and would reflect the logical structure of the facts being asserted or denied (25). Russell recognizes that a proposed analysis can be better or worse than another insofar as they contribute toward the goal of developing a logically perfect language. Recall the above discussion of relations. While Russell does not take any technical issues with different analyses of monadic color relations, he sees “no particular reason to suppose that the simplest relations that occur in the world are (say) of order $n$,” (35). Here, Russell emphasizes that the extent to which the analysis succeeds depends on how the world is. If the world is at its most simple a collection of things standing in triadic relations, then a language that analyzes all relations into triadic relations would be more logically perfect than one that analyzes all relations into dyadic relations. So Russell satisfies condition (3).

Finally, Russell thinks that we can be mistaken about the extent to which a proposed analysis matches the logical structure of the facts. The discussion of color relations shows this. Additionally, Russell takes care to demonstrate the difference between things that are complex and things that merely appear complex. Almost everything to which we give a proper name in ordinary discourse appears complex. Piccadilly is denoted by a proper name in English and ‘Picadilly’ is a part of many English propositions. Nevertheless, whatever is denoted by that word is not a constituent of the relevant facts. It is, at best, a logical fiction. In fact, Russell thinks natural language is frequently misleading: “...if you take language as a guide in your analysis of the fact expressed, you will be led astray in a statement of that sort,”

4See Russell (1985): 25. Interestingly, Russell emphasizes that facts are not particular existing things.
It is clear, then, that Russell employs a criterion on analysis that allows us to be mistaken. He also does not think that analysis is decided by straightforward observation. When we look around this area of England it appears to us that we are looking at Piccadilly, that Piccadilly is the content of our perception. Russell thinks that such a view is deficient. If it is at all possible to completely know the content of our thoughts and perceptions, it is only through logical analysis. Thus, Russell endorses condition (4).

So propositions are complex, facts are complex, and the main objective is to analyze the two into their simple components. This objective is one of necessity; only by understanding simple terms can we come to fully understand complex terms. But it is also an objective that leads to progress. As the Piccadilly case shows, we regularly confuse the relationship between propositions and facts. We take there to be a direct correspondence between the simple terms of ordinary language and the simple terms of facts. In reality, such a direct correspondence is rare. Whatever facts correspond to the proposition expressed by “Picadilly is a street in London,” do not contain some street as a component. Thus, we might say, the ideology of ordinary language misleads us in matters of ontology. If we were to employ a logically perfect language, we would avoid such mistakes. Ontological commitments could be straightforwardly read from claims cast that way. Adopting a proper analysis of the expressions we use results in propositions that more perspicuously describe the facts.

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5 The relationship between language and world is, according to Russell, complex. For example, “When I speak of a symbol I simply mean something that ‘means’ something else, and as to what I mean by ‘meaning’ I am not prepared to tell you ... I think that the notion of meaning is always more or less psychological ... I think that it is of the very essence of the explanation of what you mean by a symbol to take account of such things as knowing, of cognitive relations, and probably also of association.” (45). I take this to be a sort of internalism about the correspondence relation. In this way Russell’s position is different from Sider’s, which posits a correspondence governed by external factors, e.g. reference magnetism. However, see Soames (2014): 576-577 for an alternative take on what Russell means by ‘meaning’.

6 See Russell (1985): 54

7 See, also, Russell’s discussion of logical operators and their relationship to facts in Lecture III.
of the world. That is, Russell goes beyond a mere truth correspondence between logically simple expressions and facts; there is a correspondence between the simple terms of the propositions and the constituents of the facts. Thus, correspondence is sub-sentential. Of course, which analysis is the correct one is no trivial matter. During his lecture Russell provides what he thinks the proper analyses are but he is cognizant of the possibility of failure.

Interestingly, the connection can be further bolstered by considering Russell’s epistemology of language. Famously, Russell thought direct acquaintance was crucial to knowledge. For my purposes, this manifests in the claim that in order to understand a name you need to be acquainted with what the name denotes and know that it denotes that thing. The epistemology of predicates is very different, however. Take the predicate ‘red’. Understanding this predicate does not require being acquainted with some entity, redness, for which the word stands. Rather, to understand the predicate “is to understand what is meant by saying that a thing is red. You have to bring in the form of a proposition. You do not have to know, concerning any particular ‘this’, that ‘This is red’ but you have to know what is the meaning of saying that anything is red... When you understand ‘red’ it means that you understand propositions of the form that ‘x is red’,” (34). Russell claims here that knowledge of qualitative features is mediated by language. While we might have direct, non-linguistic, knowledge of particulars, our access to facts is through language. In other words, a full understanding of the world requires a full understanding of the terminology used to describe it.

I have argued that Russell seems to endorse an externalist criterion that guides the process of analysis. Russell did not group all of the threads found in his development of logical atomism under the heading “ideology”. But it is clear that the issues he addresses are similar to those Sider and Quine address.

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Though I will not try to prove it here, I think a similar story can be told for Wittgenstein and for Prior. I wouldn’t be at all surprised if earlier philosophers satisfied the four conditions as well. Thus, we should not think that Quine was the first to employ the notion of ideology.


