WHAT WE DISAGREE ABOUT WHEN WE DISAGREE ABOUT ONTOLOGY

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1 Some tribes

There was once a land inhabited by many tribes. For a long time, each of the tribes was isolated from all the rest. When they finally made contact, all were amazed to discover how similar they were to one another. All of them spoke languages with exactly the same syntax—that of English. Nevertheless, it soon became clear that there were systematic behavioral differences among the tribes. These differences were reflected in the tribespeoples' reactions to

> **The Special Composition Question** Under what circumstances do several things compose something?

or its more explicit variant,

> Under what circumstances is there an object having each of several things as parts, every part of which shares a part with one of them?

It turned out that, while each tribe had taken it for granted that the answer to this question was completely obvious and unproblematic, different answers to this question were current among the different tribes. The tribe of *Universalists*, for example, would unhesitatingly

answer 'Always: for any things whatsoever, no matter how scattered and miscellaneous they might be, there is somethiing they compose'. The *Nihilists* favoured the answer 'Never: there are no composite objects, only simple ones.' The *Organicists* answered 'Just in case their activity constitutes a life'.[1] The *Stuck-togetherists* answered 'Just in case they are all sufficiently tightly stuck together.' And so on for each of many other tribes. The rest of the tribes' verbal behaviour was as one would expect, given these differences. So, for example, in the circumstances where a Universalist would say 'take a chair', Nihilists and Organicists would invariably say 'take some things arranged chairwise'.

Once the tribes had learned of one anothers' existence, two views about the nature of the differences between the tribes became popular. Adherents of the *fractious* view claimed that the tribes were all speaking the same language: what distinguished them was the difference in their *beliefs* about the question expressed by the words 'Under what circumstances do several things compose something?' in their common language. Adherents of the *conciliatory* view, on the other hand, by contrast, claimed that each tribe had its own language. When the Organicists said things like 'There are no nonliving composite objects', they were, despite appearances, not really contradicting what the Universalists expressed by the words 'There are many nonliving composite objects.' In fact, the sentence expressing each tribe's characteristic answer to the Special Composition Question was a true sentence of that tribe's language.[2]

In the first part of this paper (sections 2–5), I will consider the question how the conciliator should concieve of the differences between the languages of the tribes. Although the idea that there are many different possible languages which differ systematically in the truth-values they assign to general ontological claims has had many distinguished adherents—among them Carnap (1950), Putnam (1987) and Hirsch (2002)—none of them, to my knowledge, has given a fully general semantic account of these differences: one which shows the speakers of any given language how to state semantic theories for all the other languages. Opponents of the view have suspected that the challenge cannot be met (see, e.g. Sider

MS). I will show how, by borrowing some ideas from contemporary work on fictionalism, the conciliator can give a uniform compositional semantics for all the different tribes' languages, which will work just as well no matter which language the conciliator might happen to be speaking.

The remainder of the paper will consider what those who favour the conciliatory view about these imaginary tribes ought to say about the ongoing debate about the Special Composition Question amongst ontologists at the actual world. There are appealing lines of thought which might lead a conciliator to adopt one of the following claims about that debate:

(i) The Special Composition Question is easier to resolve than many ontologists think: all we need to do is look closely at the way ordinary people talk about composite objects.

(ii) The Special Composition Question is highly indeterminate: many logically inconsistent answers to it are such that there is no fact of the matter as regards whether they are true.

(iii) The ontologists debating the Special Composition Question are in the same situation as our imaginary tribes: each ontologist speaks an idiolect in which his or her favoured answer to the Question is true.

(I will use 'scepticism' as a blanket term to cover all three of these views, together with various intermediate positions.) My main aim will be to argue that these lines of thought are mistaken. In fact, if conciliators pay close attention to what ontologists actually think they are doing, they will see that they should really say that the Special Composition Question, as debated by ontologists, has a univocal, determinate answer, namely the Nihilist's one.

2 Variation in the meanings of quantifiers

For the sake of exposition, then, let's suppose that the conciliators are right. Sentences like 'Whenever there are some things, they compose something' and 'There are chairs' mean different things in the languages of different tribes, since they have different truth-values in the languages of different tribes. If so, then presumably some of the words in these sentences also vary in meaning between the different languages.[3]

Which are the variable words? Given the nature of the divergence between the languages, one might naturally expect that *mereological* vocabulary—predicates like 'part', 'compose', and 'simple'—will be variable. But this can't be the only difference between the languages, since 'there are chairs' varies in meaning but doesn't contain any mereological vocabulary. One way to explain this variation would be to add a great many ordinary predicates like 'chair' to the list of variable words. Indeed, in view of the variation in the meaning of sentences like 'There are exactly ten things'—surely if this sentence were true in Nihilish, it would be false in Universalese—if we adopt this approach we shall have to include even very general predicates like 'thing' ('object', 'entity', etc.) on the list of variable words.[4] Perhaps this approach can be made to work. But I think there is a much better, more economical explanation for the variation in the meaning of sentences: namely, the hypothesis that the *quantifers*—by which I mean words like 'some', 'all', 'most', 'few', 'something', 'everything', 'whenever', 'always', as well as words like 'ten' when they occur as determiners—are variable in meaning.[5] Once this variation in the meaning of quantifiers has been recognised, there is no evident need to posit variation in the meanings of predicates like 'part', 'chair', and 'thing'.[6]

The quantifiers can't be the *only* variable words, since some variable sentences don't contain any quantifiers. For example, 'Mars is red' is true in Universalese but untrue in Organicese. To explain the variability of sentences like this, we will also need to recognise some sort of variation in the meaning of names, demonstratives and indexicals.[7] But it's

the variability of the quantifiers that is most relevant to the general ontological claims we're concerned with, so let's investigate that first.

3 Conciliatory semantics for the quantifiers

What, then, is the nature of this variation in the meanings of the quantifiers? If we happen to be Universalists, we will find this question easy to answer: we can characterise the meaning of a given quantifier in any other tribe's language as a *restriction* of the meaning it has in our language, Universalese. Suppose, for the sake of definiteness, that we adopt the view that the semantic value of 'something' is a property of properties: 'something Fs' is true just in case the semantic value of 'Fs' instantiates the semantic value of 'something'. Then we can say that just as 'something' in Universalese expresses the property *being instantiated*, so 'something' in Organicese expresses the property *being instantiated by some simple or living thing*.

But what are we to say if we are Organicists trying to characterise the meaning of 'something' in Universalese? We can't say, of course, that there are things that are in the ranges of their quantifiers but not of ours: claims like this are self-defeating. But there must be *something* for us to say. Given that the truth-values of sentences in Universalese depend *somehow* on which things there are, and what they are like, surely there must be some systematic story to be told about how this dependence works.

(We certainly can imagine radically impoverished languages, blind to whole realms of facts. For example, some people might find the discoveries of modern astronomy so disturbing that they decide to make them inexpressible: they agree among themselves to speak a new language in which 'something' means what 'something within a light year of the centre of gravity of the solar system' means in English, and similarly for other quantifiers. In Astronomically Impoverished English, the sentence 'The truth-values of sentences in ordinary English depend on which things there are, and on what they are like' is false.[8] If we somehow found ourselves speaking such a language, we would have a good reason to institute a

linguistic reform. But it seems to me that we would need very special reasons to interpret any community as speaking a language that was impoverished in this way. Besides, it is hardly in the spirit of the conciliatory view to say that while the Universalists can give an adequate semantics for Organicese, the Organicists cannot return the favour.)

How, then, are we to specify the semantic value of 'something' in Universalese, if we are Organicists? One thing we can see immediately is that it cannot be an *extensional* property of properties: it is sometimes instantiated by only one of two coextensive properties.[9] For if we assume that the words 'large', 'inanimate' and 'non-self-identical' mean the same in Organicese and in Universalese, we can truly make the following speech:

> Although the predicates 'large and inanimate' and 'non-self-identical' are coextensive in Organicese, and hence in Universalese, the sentence 'something is large and inanimate' is true in Universalese, whereas the sentence 'something is non-self-identical' is not.[10]

This speech would of course be false in the mouths of the Universalists. No matter what language we are speaking, we can truly say, 'The word 'something' is extensional in our language, since an instantiated property cannot be coextensive with an uninstantiated one.' This shows that the word 'extensional' expresses different properties in Organicese and Universalese.[11] There's nothing surprising about this: the definition of 'extensional' contains several quantifiers, so of course it will inherit the variability in the meaning of the quantifiers.[12]

Given that we're looking for a non-extensional property of properties, an obvious strategy is to specify the meaning of 'something' in Universalese using some sort of modal or conditional operator. One approach that promises great generality involves employing counterfactual conditionals. The idea is that the Organicists should say something like

(1) The word 'something' in Universalese expresses the property of being a property which would be instantiated if composition were universal.

Or better (to avoid the thought, which an Organicist might find natural, that if composition were universal, it would have to be because of the truth of the bizarre pan-vitalist hypothesis that the activity of any things whatsoever constitutes a life):

(2) The word 'something' in Universalese expresses the property of being a property which would have been instantiated if things remained arranged exactly as they actually are, except that there were just enough new things to make it true that composition is universal.[13]

This semantics can be generalised straightforwardly to other quantifiers; the natural way of doing this will have the desired consequence that the sentence 'whenever there are some things, there is something they compose' is true in Universalese. It can also be generalised straightforwardly to the languages of other tribes: we need only substitute a statement of the central dogma of the tribe whose language we are trying to interpret for the sentence 'Composition is universal' in the antecedent of the counterfactual. Finally, nothing depends on the fact that we have been considering these theories as stated in Organicese. If they work in Organicese, they will work just as well in any of the other tribes' languages.[14]

4 Objections to the counterfactual semantics

4.1 Counterfactuals with impossible antecedents

Many philosophers have held that counterfactuals with impossible antecedents are all vacuously true. If this view were correct, it would spell trouble for the counterfactual semantics. For presumably, if the conciliatory view is correct, 'Everything is simple or living' is a *necessarily* true sentence in Organicese; if so, 'It is impossible for composition to be universal, if all actual things are arranged just as they actually are' is is true in Organicese, so the counterfactual that features in (2) has an impossible antecedent. If all such counterfactuals were true, it would follow that the semantic value of 'something' is a property instantiated by all properties whatsoever! However, there is every reason to disbelieve the claim that

all counterfactuals with metaphysically impossible antecedents are vacuously true. Here are some plausible counterexamples:

(3a) If I were a bird, I would have feathers.

(3b) If it were necessary that there are no donkeys, it would be necessary that there are no talking donkeys.

(3c) If there were unicorns, there would be horse-like creatures with horns on their foreheads.

(3d) If all and only married men were bachelors, most politicians would be bachelors.

These examples do indeed pose a challenge for the project of giving a formal semantics for the counterfactual conditional. But: (i) There are even worse challenges facing those who would give a formal semantics for other kindred notions, such as the indicative conditional. (ii) Some good work has been done on responding to these challenges (see, e.g. Nolan 1997). And (iii) if you are still determined not to understand counterfactuals with impossible antecedents, you should feel free to substitute 'According to the fiction that...' wherever I have written something of the form 'If it were the case that...': for we surely can understand claims about what is the case according to impossible fictions in such a way that such claims are not all vacuously true (see Rosen 1990).

4.2 'Actually'

If we use counterfactuals—or modal operators of any sort—in our account of the variation in the meanings of the quantifiers, we will, rather surprisingly, find that we have to add the words 'actual' and 'actually' to our list of variable expressions. For consider the true Universalese sentence

(4) Something actually is a chair.

If we treated 'actually is a chair' as invariant, our Organicists' semantic theory for 'something' would entail that (4) is true iff the property *actually being a chair* would be instantiated if composition were universal. But in that case (4) would have to be false. Since nothing is a chair at the actual world, nothing would have been *actually* a chair no matter how things had been different.

It's not hard to come up with an appropriate account of the variability of 'actually': we need only take the semantic value of 'actually' in Universalese to be the same as that of the compound operator 'actually, if composition were universal' in Organicese.[15] Since 'actually' plays the very same logical or conceptual role in all the tribes' languages, it is surprising to learn that it varies in meaning in this way. Then again, one doesn't have to be a radical holist to think that the semantic properties of an expression are not determined by that expression's conceptual role taken in isolation, but rather by its conceptual role taken in conjunction with those of certain other expressions in its language.

4.3 Semantic claims

Consider the following sentence of Universalese:

(5) All the central dogmas of the Organicists are true.

Given that we are assuming the conciliatory view, we must count (5) as true. But how are the Organicists to account for its truth? Assuming that the quantifier is the only relevant variable expression in (5), the counterfactual semantics entails that (5) is true iff

(5*) If composition were universal, then all the central dogmas of the Organicists would be true.

But (5*) seems, at first sight, to be false (in Organicese). For the central dogmas of the Organicists are sentences like 'there are no nonliving composite objects'. If composition had been universal, there would have been nonliving composite objects, and so this sentence would have been false.

One might be tempted to respond to this objection by claiming that the predicate 'true' (understood as applying to utterances, or sentences of arbitrary languages) expresses different properties in Organicese and Universalese. But even if an approach along these lines could be made to work, we should be loath to take this step. It is one thing to propose that when the members of different tribes appear to disagree about *ontology*, they are really talking past one another. It is quite another thing, and much stranger, to propose that even when they explicitly endorse the conciliatory view, and start saying things like 'In your language, the sentence "There are no nonliving composite objects" is true', they are *still* somehow talking past one another.

I think that it would be better to respond to this objection by claiming that (5*) is in fact *true* in Organicese. The idea is that the Organicists should reason to themselves along the following lines:

> If composition were universal, we Organicists would still be going around uttering sentences like 'There are no nonliving composite objects'; but we would be speaking a different language from the one we actually speak. The proposition expressed in *that* language by 'There are no nonliving composite objects' is one that would be true, even if composition were universal.

This idea—that a change in the facts about what it takes for composition to occur, without any change in the Organicists' behaviour, could suffice for such a radical change in the meaning of the Organicists' sentences—may initially seem bizarre. But it strikes me that anyone who finds the conciliatory view plausible should, on reflection, find this idea plausible as well. What underlies the conciliatory view is a limited principle of charity: a correct interpretation of some language-users will never impute to them systematic error as regards the ontology of composite objects, at least if their discourse about composite objects is internally consistent. If this is right, the speakers of any language can truly say to themselves that if the ontological facts had been systematically different, the principle of charity would have made a different interpretation of their speech correct.[16]

4.4 Translation and fine-grained contexts

Given a semantic theory for one language stated in another language, there will be a natural way to read off a *translation manual* from the first language into the second language. The Organicists' counterfactual semantic theory for Universalese suggests that we could translate an arbitrary Universalese sentence into Organicese by inserting the expression 'If composition were universal, it would be the case that...' in front of every quantifier. (In fact something more complicated than this will be required to deal with quantifiers that are not in subject-position, as in 'Everyone loves someone'.) The translations we arrive at by using this algorithm will often be quite complex. For example,

(6) Some star is such that many planets orbit it

will become

(6*) If composition were universal, some star would be such that if composition were universal, many planets would orbit it.

But typically this complexity is eliminable. (6*), for example, is logically equivalent to

(6**) If composition were universal, some star would be such that many planets orbit it.[17]

If we blindly apply this algorithm to all Universalese sentences, problems will ensue. Consider the (presumably true) Universalese sentence

(7) Most dogs believe that there are rocks

The algorithm would lead us to translate this into Organicese as

(7*) If composition were universal, most dogs would believe that if composition were universal, there would be rocks.

But (7*) seems dubious. We might well think that most dogs are not sophisticated enough to have this counterfactual belief; and the truth of the antecedent of the counterfactual wouldn't make them any more sophisticated.

Again, consider the Universalese sentence

(8) If there were no nonliving composite objects, composition would be universal.

Intuively, this is false, despite the impossibility of the antecedent. But the algorithm would lead us to translate (8) as follows:

(8*) If it were the case that (if composition were universal, there would be no nonliving composite objects), then it would be the case that (if composition were universal, composition would be universal).

This is hard to make sense of, but there is a strong case for regarding it as true—perhaps vacuously true—in virtue of its logically true consequent.[18]

Is this a problem for the counterfactual semantics? If it is, it is a general problem for the sort of semantics that assigns entities like *properties* as semantic values. For example, although the word 'water' expresses the property *being* H_2O, it would be a mistake to translate the true sentence

(9) All dogs believe that there is water

into the intuitively false sentence

(9*) All dogs believe that there is H_2O.

Likewise, it would be a mistake to translate the intuitively false sentence

(10) If water were an element rather than a compound, all water would be H_2O

into the much more bizarre, but apparently true

(10*) If H_2O were an element rather than a compound, all H_2O would be H_2O.

It may be that the style of semantic theory in which properties are assigned as semantic values is simply not up to the task of giving an adequate compositional account of sentences like these. If so, we will presumably need to find some more "fine-grained" style of semantic value to make the necessary distinctions between expressions which correspond to the same property.[19] But I know of no reason to expect any *special* difficulties in the task of adding the right sort of fineness of grain to the counterfactual semantics.

I am tempted to say no more than that: but perhaps it would help if I sketched one style of approach to adding the necessary fineness of grain which, while it doesn't solve all the puzzles of substitutivity, does at least give us a neat explanation of what is wrong with the translations of (7)–(10) as (7*)–(10*). The idea is that whereas syntactically simple expressions pick out the properties and relations they express "directly", syntactically complex expressions pick them out "by description", as the properties and relations constructed in such-and-such ways out of such-and-such other properties and relations. So, to take a simple example, the syntactically complex term 'frozen water' picks out the property it expresses—the property of being ice—*as* the conjunction of the properties *being frozen* and *being water*. This explains why 'ice' and 'frozen water' are not intersubstitutable in propositional attitude ascriptions: to believe that there is frozen water in the glass, one must not only believe that there is ice in the glass, but believe that proposition in a certain articulated way. It also explains why 'ice' and 'frozen water' are not intersubstitutable in certain counterfactuals with impossible antecedents. For it to be true that, if it had been the case that P, there would have been frozen water in the glass, what must be true is that, if it had been the case that P, the glass would have contained an instance of whatever property would in that case have been the conjunction of *being frozen* and *being water*—which might be something other than *being ice*, if P describes an impossible situation in which *being ice* fails to be the conjunction of *being frozen* and *being water*.[20]

Applied to the counterfactual semantics, the idea would be that 'something' in Universalese expresses a certain property of properties *directly*, a property which the complex

Organicese expression 'is a property which would have been instantiated if composition had been universal' expresses only under a description which characterises its structure. Dogs do believe propositions involving this property of properties—for example, the proposition that results when it is predicated of the property of being a rock—but they do not pick it out in the articulated manner which would be required for (7*) to be true. And counterfactuals like (8), which concern impossible situations in which the property has a different structure from the one it actually has, can differ in truth value from sentences like (8*) in which the property is picked out as the occupant of a certain structural role.

5 Conciliatory semantics for names

How can these conciliatory semantic theories be extended so as to account for the variation in the meanings of proper names between the different tribes' languages? One thing that we can see straight away is that in general, we can't expect semantic theories on which names are assigned their *referents* as semantic values, so that a simple subject-predicate sentence is true if the semantic value of the subject instantiates the semantic value of the predicate. For the Organicists must recognise that 'Mars is a red planet' is true in Universalese despite the fact that nothing instantiates the property of being a red planet.[21] Instead, the semantic value of a name should be taken to be something like a *property of properties*—an entity of the same general sort as the semantic values of quantifiers. On this approach, 'Mars is a red planet' will be true in Universalese iff the semantic value of 'is a red planet' in Universalese (i.e. the property *being a red planet*) instantiates the semantic value of 'Mars' in Universalese.

How should the Organicists characterise the semantic value of 'Mars' in Universalese? If they have the name 'Mars' in their language—for them, of course, it will be an empty name—they can mimic the counterfactual semantics for the quantifiers:

(11) The word 'Mars' in Universalese expresses the property of being a property that would be instantiated by Mars, if composition were universal.

This will only work, of course, if we can truly say (in Organicese) that Mars would exist if composition were universal. This sounds reasonable enough to me; but there are some views about empty names according to which sentences involving empty names in this way are always untrue.[22] In any case, it can hardly be maintained that it is only thanks to the fortuitous presence in their language of appropriate empty names that the Organicists can give an adequate semantic theory of names in Universalese. In the absence of appropriate empty names, the semantics must proceed piecemeal. It might be suggested that each name of Universalese should be associated with a certain set of simple things, giving us a semantics along the following lines:

(12) The word 'Mars' in Universalese expresses the property of being a property that would be instantiated by the unique planet composed by the members of S, if composition were universal.

But this seems to be too simple: it will fail to account for the truth in Universalese of the sentence 'It could have been the case that Mars had different parts'.[23] To get around this sort of problem, we will need to substitute for 'the unique planet composed by the members of S' some description of which we can truly say, in Universalese, that it expresses an *individual essence* of Mars—a property possession of which is necessary and sufficient for being Mars. Something along the lines of 'the unique planet composed by the members of the unique F set', where F expresses some complicated property of sets of simples, might do the trick.[24]

This sort of semantics for names has the same sort of problems with propositional-attitude contexts that I discussed for the case of the quantifiers in section 4.4. Prima facie, it looks as if we will have trouble accounting for the truth, in Universalese, of sentences like

(13) Many people believe that Mars is red but do not believe that the unique planet composed by the members of the unique F set of simples is red,

and the falsity of sentences like

(14) If Mars had not been composed by the members of any F set of simples, the unique planet composed by the members of the unique F set of simples would not have been composed by the members of any F set of simples.

Perhaps there is no way to give an adequate semantic account of sentences like this one without introducing some new, more fine-grained element into our semantic theory. One sort of approach to providing the needed fineness of grain is closed to the conciliator: the Organicists cannot say that the semantic value of 'Mars' is, or involves, a certain object, namely Mars, in a way that the semantic value of the description 'the unique planet composed by the members of the unique F set of simples' does not. But this is not the only possible approach. Indeed, for any account we might give of the difference between the semantic values of 'water' and 'H_2O' (for example, the one sketched at the end of section 4.4), it should be possible for the Organicists to give an analogous account of the differences between the semantic values in Universalese of 'Mars' and the description that gives its individual essence.

6 Folk mereology

Let's step back from all these semantic details and take stock. How is the thought experiment of the tribes supposed to bear on our actual situation? Unlike the tribespeople, ordinary English speakers don't have an answer to the Special Composition Question on the tips of their tongues. Nevertheless, there are many general principles about the circumstances under which composition occurs which we *treat* as if we were perfectly confident of their truth, even though we generally don't feel called upon to assert them. For example, if I were to tell you that my child put one block on top of another block, and put a third block on top of that, and put a fourth block on top of that, and that no other blocks were nearby, and you believed me, you would be apt to report me as having said that my child made a stack of four blocks. In moving back and forth like this between a claim about the blocks and a

claim about the stack, you are implicitly treating the sentence 'If some blocks are stacked up one on top of another, then there is a stack that they compose' as if you were very confident of its truth. Call the theory that comprises all the general claims about composition which we typically take for granted in this way *folk mereology*.

Here is an argument for the truth of folk mereology. Folk mereology plays the same general sort of role for the community of ordinary English-speakers that each tribe's central dogmas play for that tribe. But the thought experiment of the tribes shows us that any sentences which play that sort of role in a community will express truths in that community's language. Hence, the sentences that comprise folk mereology express truths in ordinary English. Let's call this the *argument from charity*, since its second premise is a highly circumscribed version of the principle of charity.[25]

A complication: it may have been an oversimplification to assume that there is a *single* set of principles about composition which guide our talk about composite objects in all ordinary contexts. Perhaps we have several different, incompatible practices for talking about composite objects, of which we choose whichever best serves our communicative purposes. In that case, it would be natural to conclude that the quantifiers in ordinary English are context-sensitive, so that different general claims about composite objects are true in different contexts. We might be motivated to posit this sort of of context-sensitivity by considering certain paradoxes: jointly inconsistent sets of intuitively compelling sentences. For example, there is the celebrated paradox of the statue and the lump. On the one hand we want to say that the atoms arranged statuewise compose only one object; on the other hand, we want to say that they compose at least two, on the grounds that the statue has been around much longer than, would be easier to destroy than, is worth more than... the lump of clay. *Perhaps* the thing to say is that each of these claims is true in the context in which it would be most likely to be asserted, although there is no context in which both are true.

The argument from charity is silent about the truth-values of those general claims about composition that are consistent with but not entailed by folk mereology (or by the theory

that plays the role of folk mereology in a given context). But there is a natural line of thought that might lead one from the conciliatory view to the conclusion that all such questions are indeterminate in truth value. Consider a tribe whose characteristic mereological doctrine is relatively unspecific: for instance, the Stuck-Togetherists, who propound a doctrine they express using the words 'Several things compose something just in case they are sufficiently tightly stuck together', but never say anything very specific about the degree of tightness required. It seems unacceptably arbitrary to claim that anything much more specific than this doctrine is determinately true in their language. The only way to avoid this arbitrariness is to claim that their current language is indeterminate, having each of the languages which they might end up speaking if they adopted a more specific version of the doctrine as an admissible precisification. It is arguable that speakers of ordinary English are in an analogous situation. If so, any suitably general question about composition which is not resolved by folk mereology will be indeterminate.[26]

7 Ontological disagreement

If the argument from charity is sound, the right methodology for investigating questions about the ontology of composition, expressed in ordinary English, is the methodology of ordinary language philosophy.[27] That doesn't entail that these questions are trivial or uninteresting: it may not always be obvious what, if anything, folk mereology has to say about a given question. Nevertheless, this picture plainly conflicts with many ontologists' conception of what they are talking about. This class clearly includes ontologists like van Inwagen (1990), whose theories are blatantly inconsistent with folk mereology. But even ontologists whose theories are not in such obvious conflict with folk mereology may make it clear, by the nature of the arguments that they give for their own views, and by the seriousness with which they take the views of their opponents, that they don't think that what they are doing is answerable to the methods of ordinary language philosophy. They mean to be doing something much less parochial. Is there any way, if we accept the conclusion of the argument

from charity, to avoid the conclusion that all these ontologists are just wrong?

Of course there is: we can claim that the ontologists in question—call them "foundational ontologists"—are not speaking ordinary English. Their language may instead be a sort of professional jargon in which certain expressions—in particular the quantifiers—have special senses, distinct from their senses in ordinary English. The most cursory look at these ontologists' linguistic behaviour suffices to make this interpretative hypothesis look compelling. Although many foundational ontologists are disposed to utter sentences which conflict with folk mereology, like 'there are no chairs', when they are engaged in ontological debates, the rest of the time they behave just like everyone else, uttering sentences like 'there are too many chairs in my office'. And even those foundational ontologists whose linguistic behaviour is less variable than this seem to take their colleagues' strange dispositions in their stride; they do not display the blank incomprehension which would be the natural response to people one took to be alternating between contradictory assertions.[28]

Further confirmation for the hypothesis that the language of ontology is distinct from ordinary English can be found by looking at what ontologists themselves think is going on. Opinions vary, of course; but many ontologists make remarks that suggest that they hold something like this view. Here, for example, is what van Inwagen says about the relation between his claims and ordinary opinion:

> [W]hen people say things in the ordinary business of life by uttering sentences that start 'There are chairs...' or 'There are stars...' they very often say things that are literally true. ... [A]ny of the propositions that an English speaker might express by uttering 'There are two very valuable chairs in the next room' on a particular occasion... is, I would argue, consistent with the propositions that I, as metaphysician, express by writing the words 'There are no chairs'. (van Inwagen 1990, p. 101)

Indeed, the idea that certain bits of language have distinctive meanings in the mouths of philosophers must be as old as philosophy itself. When Thales said 'All is water', did he

really mean to be contradicting the propositions that ordinary people would express using sentences like 'There is very little water in the Arabian Desert'?

Once we have recognised the possibility that the language of ontology is distinct from ordinary English, we can no longer rely on the argument from charity to establish the truth of folk mereology in the language of ontology. The most salient thing about the ontologists' usage is the fact that they don't take *any* sentences about composition for granted in the way each tribe takes its characteristic dogma for granted. So there is no very direct route from the conciliatory view of the tribes to any particular view of ontological debate.

However, if we embrace the "two languages" picture, it does seem reasonable to ask the ontologists to explain what they are talking about in ordinary English—to teach the uninitiated how to speak their special jargon. I don't see why the ontologists should refuse to take up this invitation. I imagine the proffered explanation will look something like this:

> What we debate in the ontology room is the question what there is *strictly speaking*—what there *really*, *ultimately* is—what there is *in the most fundamental sense*. Of all the many meanings a quantifier like 'something' might have, one is *special*. This is the one in terms of which all the rest are to be analysed; it is the one such that to find out what there is in *this* sense would be to fulfil the traditional metaphysical goal of comprehending reality *as it is in itself*. When we do ontology, our quantifiers bear these special meanings.

There is no reason why someone who endorsed the argument from charity would *have* to find this explanation unsatisfactory. Nevertheless, many philosophers certainly will find it unsatisfactory. They will deny that there *is* any relevantly "special" interpretation of the quantifiers. They need not go so far as to reject the very idea that some languages could be better-suited than others for capturing the structure of reality "as it is in itself"[29]; they need only claim that this goal can be achieved equally well in many different languages, in which different meanings for the quantifiers lead to different answers to the Special Composition Question.

What should these sceptically-minded philosophers say about the language of ontology? As I already mentioned in section 1, there seem to be three main possible views:

(i) Ontologists' attempts to break free from the shackles of ordinary language are unsuccessful. Even in the context of the ontology room, folk mereology is true "by default".

(ii) The special practices of ontologists succeed in freeing language from the constraints imposed by ordinary usage, but they do not succeed in imposing any new constraints to take their place. As a result, the language of ontology is highly indeterminate, so that none of the disputed answers to the Special Composition Question has a determinate truth-value.

(iii) The special practices of ontologists succeed in freeing language from the constraints imposed by ordinary usage; but the result of this is linguistic fragmentation. In the idiosyncratic language spoken by a given ontologist, that ontologist's general claims about composition are all true.

The differences between these interpretative views don't matter much for my purposes. They all entail, in one way or another, that foundational ontologists are deeply mistaken about the nature of their own practice.

8 Strategy

So far, then, we have stalemate. The foundational ontologist maintains that there is a special, "metaphysically basic" set of meanings for the quantifiers. The sceptic denies this, or claims not even to understand the expressions used by the ontologist in explaining the relevant notion of specialness. How can we move the debate forward?

The task faced by the ontologist is to initiate the sceptic into the practice of foundational ontology, by articulating, in terms even the sceptic will understand, a criterion by which

the language of ontology can be distinguished from all the many other candidate languages which one might be tempted to interpret ontologists as speaking. To win at this game, we will need to convince the sceptic that the criterion we articulate fulfils certain desiderata:

(i) It should be *satisfied* by some language—and not just by toy languages, but by some language that is a candidate to be the language of ontology.[30]

(ii) It should be *discriminating*. Ideally, it should be satisfied by exactly one of the candidate languages; but if it is satisfied by more than one, they should at least agree as regards the answers to general ontological questions like the Special Composition Question. This will be enough to ensure that such questions have determinately and univocally correct answers in the language of ontology.

(iii) It should be *faithful* to the practice of foundational ontology. It would be ideal if foundational ontologists were all disposed, irrespective of their ontological views, to agree that the language in which they conduct their debates is one that satisfies the criterion. Failing that, we should be able to make it plausible that foundational ontologists are *implicitly* committed to accepting this criterion: our criterion should articulate some basic presupposition that unifies and makes sense of some facts about foundational ontological debate which would otherwise seem puzzling and arbitrary.

Suppose we can convince the sceptic that our criterion meets all three of these desiderata. Then, I think, the sceptic would have to agree that actual foundational ontologists are properly interpreted as speaking a language satisfying the criterion in question.[31] Such an interpretation is clearly preferable, from the point of view of charity, than an interpretation according to which ontologists are speaking a language in which folk mereology is guaranteed to be true, or speaking a radically indeterminate language, or speaking many divergent idiolects.[32] Foundational ontologists *think* that they are debating genuine questions, with determinate answers, which do not merely reflect the idiosyncrasies of "our conceptual

scheme". If we can, we should interpret them in such a way that this self-conception is correct.

I should emphasise that it is not a requirement for success that the sceptic should be left, after we have finished our initiation, regarding the questions debated by ontologists as *open* questions. It may well be that the sceptic will end up saying, 'Oh, if *that's* what you've been talking about all this time, I see that I have agreed all along with those ontologists who maintain that P, and that I have disagreed with those ontologists who maintain that not-P.' (In fact, this will be the state of play at the end of the paper: if my argument works, it will convince would-be-sceptics that they have really been Nihilists all along.) It would be worrisome if the sceptic could present us with an *obviously sound* argument for the claim that 'P' is true in the language(s) that satisfy our criterion, for then we would have to worry that we were being unduly uncharitable in interpreting ontologists who deny 'P' as speaking such a language. But if the (former) sceptic's argument for the claim that 'P' is true in the language of ontology is based on controversial premises which many non-sceptical opponents of the claim that P will deny, we need not be concerned.

The question how foundational ontologists should be interpreted is intimately bound up with a question about the proper interpretation of modifiers like 'strictly speaking', 'really', 'ultimately' and 'fundamentally'. If we can agree that foundational ontologists should be interpreted as speaking some single, reasonably determinate language, distinct from ordinary English, we should also agree that at least one legitimate function of these modifiers in ordinary English is to force whatever is within their scope to be interpreted as it would be in that language. The point of prefixing a sentence with one of these modifiers is to encourage one's hearers to look for some unusual interpretation of one's words that is somehow salient and interesting, but that would normally be rejected on the grounds that it fits too poorly with our ordinary communicative purposes. Consider, for example, how we manage to work out what someone would intend to convey by using the words 'nothing is *really* solid'. Among the properties that are similar enough to the property we normally attribute using the word

'solid', one stands out as especially salient—the property of containing no empty space *at all*. Many words aren't like this. For example, there isn't any obvious sense to be made of the claim that the things ordinarily called chairs aren't *really* chairs at all (although they really do exist). If the sceptic is right, the quantifiers are more like 'chair' than 'solid'. The space of possible interpretations of the quantifiers is homogeneous: there is nothing to make any given unusual interpretation stand out as especially interesting and salient. But if we can convince the sceptic that some feature possessed by one of these interpretations makes it (reasonably) determinately correct as an interpretation of the quantifiers in the language of ontology, surely the sceptic will have to agree that this feature also makes this interpretation salient and interesting in the way that matters to the interpretation of modifiers like 'really'. It's not as if foundational ontologists are a community of eccentrics who assign some arbitrary non-standard meanings to the quantifiers just for the sake of being different. Any interpretation that can manage to be uniquely correct for such an extraordinarily varied group of speakers must be quite remarkable in some way. Moreover, the ease with which generations of students have been inducted into the practice of foundational ontology is evidence that the basic presuppositions of that practice cannot be wholly alien to our ordinary thought, even if their role there is not central enough to overcome the force of the argument from charity.

Although the communicative function of the word 'literally' in most contexts is very similar to those of the other modifiers I have been concerned with, we would be inviting confusion if we used this modifier in the same way as the others, characterising foundational ontology as concerned with the question what *literally* exists. For the use of 'literally' is complicated enormously by its having come to play a central role in theorising about language by linguists and philosophers. The question whether ordinary sentences like 'this table is solid oak' are sometimes literally true, as opposed to being merely pragmatically appropriate, is regarded as a weighty theoretical matter, with empirical implications about the structure of our linguistic capacities. I'm sure that important empirical questions are at stake in these debates about where to draw the line between semantics and pragmatics,

although I'm inclined to doubt that there's only one such question.[33] But if we think that the only way to put a distance between our ontological claims and what we assert the rest of the time is to claim that only the former sentences are *literally true*, we will make these empirical questions look more important than they really are. It would certainly be interesting if, as Stephen Yablo (1998, 2000) has claimed, ordinary talk about numbers and other abstracta is similar in some relevant respect to paradigmatically non-literal uses of language in metaphor and make-believe.[34] It would be even more interesting if such an analogy could be made out in the case of ordinary talk about chairs. But we would be conceding altogether too much to the sceptic if we adopted a conception of the subject-matter of ontological debate on which nominalists who don't think that ordinary folk are mistaken as regards the existence of numbers, and Nihilists or Organicists who don't think that ordinary folk are mistaken as regards the existence of chairs, must be committed to psychological claims like these.

The remainder of this paper will be devoted to considering various criteria by which one might attempt to distinguish the language of ontology from other languages. I will begin, in sections 9 and 10, by considering two criteria which, though they have been thought by some to provide the key to the interpretation of ontological debate, are in my view wholly unsatisfactory. Then, in section 11, I will consider a third criterion, which seems more promising, although it too is flawed. In succeeding sections I will show how this criterion can be improved upon. Finally, in section 17, I will argue that the final version of the criterion does meet all three of our desiderata, and hence that the sceptic should accept it as providing a correct and determinate understanding of the subject-matter of ontological debate. If this argument works, it will also show that the sceptic should take ontologists to be speaking a language in which Nihilism is the correct answer to the Special Composition Question.

9 Ontological disagreement as pragmatic disagreement

Carnap (1950) thought that the only way to make charitable sense of debates about general

ontological principles was to interpret them as pragmatic debates about whether it would suit our purposes to adopt 'frameworks' (i.e. languages) in which the principles in question were true. This interpretative proposal can be understood as a criterion for distinguishing the language of ontology from other languages:

> **Criterion 1** The language of ontology is the language that it would best suit our purposes to speak, among the candidate languages.

Could this be the key to understanding the debates of foundational ontologists?

There certainly *could* be a practice that worked like this. We *could* use the sentence 'Composition is universal' to convey that our purposes would be optimally well-served by speaking a language in which 'Composition is universal' expressed a truth. Perhaps there are even some actual philosophers who are properly interpreted as engaging in such a practice. But it seems quite obvious that this characterisation is very far from being faithful to the self-conception of most foundational ontologists. Ontologists whose theories conflict dramatically with folk mereology are generally perfectly happy to admit that it would be awkward and impractical were we to make a practice of asserting only those sentences that are consistent with their theories; and their more "common-sensical" opponents don't find this position in any way *incoherent*. It is just too obvious that most of our purposes would be worse served if we had to go around saying things like 'the things arranged chairwise are under the things arranged tablewise' instead of 'the chair is under the table'. (Of course, ontologists whose theories conflict with folk mereology will grant that there would be *something* desirable in our adopting the cumbrous mode of speech: if we talked in this way, we would be less apt to be led by linguistic appearances into holding erroneous views about what really, fundamentally, ultimately exists. But we can't legitimately appeal to *this* kind of "purpose" if we are attempting to teach the language of ontology to a sceptic who refuses to understand this sort of talk.)

This is not to say that Carnap must be wrong to think that ontological debate is best interpreted in accordance with Criterion 1. But an interpretation as unfaithful as this, on

which the views of so many ontologists turn out to be so easily refuted, could be acceptable only as a last resort. Before we give in, we should try hard to find a criterion that comes closer to satisfying our desiderata.

10 Absolutely unrestricted quantification

Of the various meanings a quantifier might have, some are *restrictions* of others. For example, the meaning of 'something' in Organicese is a restriction of its meaning in Universalese. If we think of these meanings as properties of properties, we will explain this by appealing to the fact that the former property *entails* the latter.[35] One of the things ontologists are apt to say when asked to clarify the meanings of their quantifiers is that they intend to be quantifying *without restriction*, over everything there is. Is there any way to interpret these remarks as expressing some criterion by which the language of ontology might plausibly be distinguished from other languages?

These remarks admit of a "deflationary" interpretation, on which they could equally well be made by the members of any of the tribes. If the Universalists are anything like us, they will sometimes say things like 'every bottle is empty' to convey the information that they could have conveyed by saying 'every bottle in the house is empty'; similarly, the Organicists will sometimes say things like 'all atoms arranged bottle-wise are arranged empty-wise'. This phenomenon is naturally explained by positing a context-dependence in the quantifiers.[36] On the deflationary interpretation, quantifying unrestrictedly just means occupying a context such that the semantic value of a quantifier in one's language in any other context is a restriction of its semantic value in one's language in that context.[37] This interpretation is clearly useless for our purposes, since it does nothing at all to distinguish the language of ontology from any other language.

If the notion of unrestricted quantification is to do any work for us, we will need to find a more ambitious way to interpret it. Say that a quantifier is *absolutely unrestricted* just in case it has a meaning which is not a restriction of any other possible quantifier-meaning.

We could try taking *this* to be the distinguishing mark of the language of ontology:

> **Criterion 2** The language of ontology is one in which all quantifiers are absolutely unrestricted.

This criterion is unsatisfactory, for two reasons. First, it is doubtful whether it is really *faithful* to the practice of foundational ontology. True, ontologists do go on about how they mean to be "quantifying unrestrictedly". But can we really charitably interpret these claims as claims to be using *absolutely unrestricted* quantifiers? It seems altogether too obvious that Universalism would be the true answer to the Special Composition Question in any language with absolutely unrestricted quantifiers. For Universalism is true in Universalese, and hence it is true in any language with quantifiers of which the quantifiers in Universalese are restrictions. On this interpretation, foundational ontologists who reject Universalism are in an unstable position: to refute them, we only have to convince them that Universalese is a *possible* language, which we might do by showing how to give a counterfactual semantics for the quantifiers of Universalese. If we can find one, we should prefer a more charitable interpretation, on which the Special Composition Question cannot be so straightforwardly resolved.

Secondly, there is a good argument that Criterion 2 is unsatisfiable. Starting with any language L, one can find a new language L' such that the meanings of the quantifiers in L are restrictions of their meanings in L'. For no matter how numerous the things at the actual world may be, we can always construct a counterfactual whose antecedent sends us to a world where there are some new things that don't exist at the actual world, by making judicious use of the 'actually' operator. This counterfactual can then be used to specify, in L, the meanings of the quantifiers of L'. For example, we could define the new meanings of the quantifiers as follows:

> 'Something' in L' expresses the property of being a property that would have been instantiated if there had been an angel more powerful than any actual angel, and everything else had been just as it actually is.

Or, if we wanted something more abstract, we could take advantage of Russell's paradox:

> 'Something' in L' expresses the property of being a property that would have been instantiated if there had been a set having as members all and only those things which actually are not members of themselves, and everything else had been just as it actually is.

The original meaning of 'something' will be a restriction of these new meanings: in the first case, to things other than the most powerful angel; in the second case, to things other than the set which has as members all and only those things other than itself that are not members of themselves. Thus, once we recognise that counterfactuals can be used in this way to extend the space of possible quantifier-meanings, we will see that there can be no such thing as an absolutely unrestricted quantifier.[38]

11 Constraints on analyticity

The counterfactual semantic theories described in section 3 are designed with a view to entailing that each tribe's characteristic dogma is a *true* sentence of that tribe's language. However, they naturally suggest the stronger claim that each tribe's characteristic dogma is an *analytic* sentence of that tribe's language. For surely—one might think—translation must preserve analyticity and syntheticity: analyticity is truth in virtue of meaning, and translation is preservation of meaning. But if we translate between the languages of the tribes in the way naturally suggested by the counterfactual semantic theories, we will find that the translation of any tribe's dogma into any other tribe's language is an analytic truth. For example, the Universalist dogma 'Any objects are such that something is composed by them' will be translated into Organicese as the analytic truth 'If composition were universal, then any objects would be such that if composition were universal, some object would be composed by them.'

This comes as no surprise: at least since Carnap (1950), scepticism about the genuineness

of ontological disagreement has been closely allied with the view that ontological claims are typically analytic when true. Conversely, those who take ontological disagreement seriously have tended to find it obvious that controversial ontological claims like the answers to the Special Composition Question are synthetic, if they accept the analytic/synthetic distinction at all.[39] These sociological facts suggest a strategy for distinguishing the language of ontology from other candidate languages. If we could find some principled basis for ontologists' judgements of syntheticity—some general, non-arbitrary condition satisfied by uncontroversially analytic truths, but not satisfied by the disputed ontological claims—we could characterise the language of ontology as one in which the only analytic truths are those that satisfy the condition.

What could the condition be? There is an long and influential tradition in philosophy according to which *existential* sentences—sentences which assert the existence of an entity of some sort— can never be analytic. This is a common theme in responses to putative a priori proofs of the existence of God, by Hume:

> Whatever we conceive as existent, we can also conceive as non-existent. There is no being, therefore, whose non-existence implies a contradiction. Consequently there is no being whose existence is demonstrable. (Hume 1779, part 9)

and Kant:

> I can not form the least concept of a thing which, should it be rejected with all its predicates, leaves behind a contradiction. (Kant 1781, B623–4).

If we picked out the language of ontology as one in which existential sentences are never analytic, we would succeed in ruling out the analyticity of a great many ontological claims: the claim that there are numbers, for example. Unfortunately, the disputed answers to the Special Composition Question are not existential: they are all consistent with—indeed, entailed by—the hypothesis that there is nothing at all. If we want our characterisation of

the language of ontology to entail that none—or at most one—of these sentences is analytic, we will need something stronger than the ban on existential analytic truths.

What we are looking for, I think, is something like this:

> **Criterion 3** The language of ontology is one in which all analytic truths can be transformed into logical truths by replacing nonlogical expressions with their conceptual analyses.[40]

Since it is quite clear that the Special Composition Question can't be settled by conceptual analysis (of nonlogical vocabulary), Criterion 3 has the intended result of entailing that none of the disputed answers to the Special Composition Question are analytic truths in the language of ontology. If this doesn't strike you as obvious, all I can do is challenge you to come up with a remotely plausible conceptual analysis of 'part', or of any other predicates, which allows any of the answers to be transformed into a logical truth. I predict you'll fail.

Many philosophers in the tradition which agrees with Hume's and Kant's claim about the impossibility of existential analytic truths have implicitly or explicitly endorsed something like Criterion 3. Moreover, those who do endorse Criterion 3 tend to find it very obvious—obvious enough to make one wonder whether those who deny it are not speaking a different language altogether. So this criterion is faithful to at least one important strand in the actual practice of foundational ontology. Can we argue that all foundational ontologists are in some sense implicitly committed to Criterion 3? I think there is a case to be made that they are: that any language whose quantifiers were "ultimate" and "fundamental", as the quantifiers of the language of ontology are supposed to be, would have to conform to Criterion 3. The meanings of the quantifiers in the languages of the tribes are rich and distinctive: particular answers to the Special Composition Question are, as it were, written into the meanings of the quantifiers, which is how they get to be analytic truths. "Ultimate" and "fundamental" meanings for the quantifiers, by contrast, are austere. Their capacity for generating analytic truths is minimal: it is exhausted by their capacity for generating *logical* truths, in accordance with the fundamental rules of inference common to all the tribes' quantifiers. Since this is

also true of other logical vocabulary, like the truth-functional connectives and the identity sign, the analyticity of any sentence in the language of ontology that is *not* a logical truth must be due entirely to the distinctive meanings of its constitutent nonlogical expressions. But the capacity of a nonlogical expression, such as a predicate, for generating analytic truths is revealed by conceptual analysis.[41] Thus, the only analytic sentences in the language of ontology are those whose analyticity can be revealed by logic and the conceptual analysis of nonlogical expressions.

12 Problems with analyticity

The obvious thing for the sceptic to say about Criterion 3 is that it isn't *satisfied*. There may be toy languages in which all analytic truths can be transformed into logical truths by substitution of conceptual analysis, but no candidate to be the language of ontology is like this. You can't just *stipulate* that such-and-such sentences are to be synthetic—there may not be any appropriate synthetic subject matter for them to have. (Consider how you would react to someone who attempted to stipulate that the claim that everything is self-identical should be synthetic.)

I see no easy way to argue that Criterion 3 is satisfied. But let's postpone further discussion of this desideratum for a while (I will take it up again in section 15). For now, it will be more useful to consider certain grounds a sceptic might have for denying that Criterion 3 is *discriminating*. There is, in fact, a good case to be made that *any* criterion that takes the form of a constraint on analyticity will fail to be discriminating: if it is satisfied by any of the candidate languages, it will be satisfied by many of them, in which a wide range of answers to the Special Composition Question are true.

Why were we supposed to think that each tribe's central dogmas were analytic in that tribe's language? The only reason I gave for this claim was the fact that these sentences are mapped onto analytic truths in other languages by the translation manuals naturally associated with the counterfactual semantics. But this isn't a good reason. It may be that a

perfect translation will always preserve analyticity and syntheticity; but if so, the translation manual associated with a true semantic theory need not always be perfect. For example, we can truly say that the French word 'eau' expresses the property of being H_2O, as does the French word 'H_2O'; but the translation of 'Tout l'eau est H_2O' as 'All H_2O is H_2O' fails to preserve syntheticity.

Of course, in this case a better translation, namely 'All water is H_2O,' is ready to hand. But this need not always be the case. Consider the inhabitants of Triton, where the oceans are made of liquid methane. The Tritonians have never encountered water outside of chemistry labs, so their only word for water is a chemical name that plays the same sort of role in their language that the expression 'H_2O' plays in ours. The best the Tritonians can do, if they want to translate our sentence 'All water is H_2O', is to use the same sentence they would use to translate our sentence 'All H_2O is H_2O'.[42] But this need not prevent them from stating a true semantic theory about our word 'water': they can truly say that 'water' in English expresses the property of being H_2O.[43]

Note, furthermore, that Tritonian doesn't seem intuitively to be an impoverished language, like Astronomically Impoverished English. It would be absurd for the Tritonians to advocate linguistic reform on the grounds that, without an expression corresponding more closely to the English word 'water', they would be unable to express the important chemical fact expressed by the English sentence 'Water is H_2O'. So there is no general reason to expect non-impoverished languages to contain perfect translations of the sentences of other languages.[44] Hence, if we want to deny that the Universalese sentence 'Composition is universal' has a perfect translation into Organicese—as we presumably will if we regard this sentence as synthetic—we will not thereby be committed to regarding Organicese as an impoverished language. I can see no good reason to hold that there is a closer relation between Organicese and Universalese than between Tritonian and English.

Thus, it is open to the sceptic to maintain that the tribal dogmas are all synthetic truths. And even if there is some other reason to think that the tribal dogmas are analytic, I see

nothing to stop us from imagining other candidate languages, just like the tribes' languages in the assignment of truth values (at least to sentences not containing the operator 'it is analytic that'), but differing from them as regards which of the truths are analytic. Hence, any criterion that takes the form of a constraint on which sentences are allowed to be analytic will, if it is satisfied by any of the candidate languages, be satisfied by many of them, and the languages that satisfy it will disagree as regards the answer to the Special Composition Question.

13 Constraints on necessity

Analyticity, it seems, is too fine-grained a notion for our purposes. What could we put in its place? Perhaps we should focus instead on *metaphysical necessity*. Clearly the counterfactual semantic theories do at least entail that each tribe's characteristic dogma is a metaphysically necessary sentence of that tribe's language. So if we could find some natural, nonarbitrary condition satisfied by none (or at most one) of the answers to the Special Composition Question, we could characterise the language of ontology as one in which the only metaphysically necessary sentences are those that fulfil this condition, and this characterisation would succeed in distinguishing the language of ontology from all (or all but one) of the languages of the tribes.

What could such a condition be? Obviously it wouldn't work to require necessary truths to be transformable into logical truths via *conceptual* analysis, since that would entail that 'all water is H_2O' is not a necessary truth of the language of ontology. But there is another notion of analysis to which we can appeal: *metaphysical* analysis. This is the sort of analysis we report by saying things like 'to be a square is to be a quadrilateral with equal sides and angles', 'to be water is to be H_2O', or 'for x to be hotter than y is for the mean kinetic energy of the molecules of x to be higher than that of the molecules of y'. Claims of this sort provide us with a canonical form of explanation of necessary truth, just as conceptual analyses provide us with canonical explanations of analytic truth. The proposal worth considering,

then, is that the language of ontology is one in which *all* necessity admits of this sort of canonical explanation:

> **Criterion 4** The language of ontology is one in which all *metaphysically necessary* truths can be transformed into logical truths by replacing nonlogical expressions with their *metaphysical* analyses.[45]

It seems to me only slightly less obvious that the Special Composition Question cannot be settled by *metaphysical* analysis (of nonlogical vocabulary) than that it cannot be settled by conceptual analysis. Analyses of 'part' and other predicates which would allow any answer to the Special Composition Question to be transformed into a logical truth or falsehood seem just as implausible whether they are considered as metaphysical or conceptual analyses. Thus, Criterion 4 has the intended consequence that all these sentences are metaphysically contingent. So, unlike Criterion 3, Criterion 4 is discriminating enough to rule out the identification of the language of ontology with any of the languages of the tribes.

To my mind, the idea that *all* necessary truths can ultimately be explained by metaphysical analysis has considerable intuitive force. When I'm in the mood in which Hume's and Kant's strictures against the *analyticity* of existential claims seem compelling, the idea that existential claims could be *necessary* seems equally mysterious; moreover, it seems mysterious how there could be any necessary truths whose necessity did not flow from metaphysical analyses of nonlogical expressions. Unfortunately, my intuitions in this regard seem to be out of step with those of other foundational ontologists. Most foundational ontologists take it for granted that the true answer to the Special Composition Question, whatever it might be, is metaphysically necessary: they apparently see nothing especially mysterious about how any claim of that sort *could* be necessary. Thus, it is, to say the least, doubtful whether Criterion 4 is really *faithful* to the practice of foundational ontology. One might legitimately be concerned that an interpretation of that practice on which the assumption that the true answer to the Special Composition Question is necessary is just a mistake would be excessively uncharitable.[46]

14 Constraints on metaphysical analyticity

The notion of metaphysical necessity, then, seems to be too coarse-grained for our purposes, just as the notion of analyticity was too fine-grained. What we need is some notion intermediate in strength between the two. Fortunately, I think we can understand such a notion. Consider the sentence 'all water is H_2O' once again. Even though this sentence is not analytic—assuming that analyticity is supposed to be something that competent speakers of a language can in principle recognise, without need for further empirical evidence—there is a sense in which 'all water is H_2O' is true just in virtue of the meaning of its constituent expressions. 'Water' *expresses the same property* as 'H_2O'; in an natural sense, the *fact* that all water is H_2O is the same as the fact that all H_2O is H_2O. It is only because we do not have a *fully transparent* insight into the meaning of 'water' that we need empirical evidence to recognise this identity. Let me sum this up by saying that 'all water is H_2O' is *metaphysically analytic*. If you feel the need for a definition, perhaps you could say that a metaphysically analytic sentence is one that expresses the same fact as a logical truth—though this will of course help only if you have an antecedent grasp of the relevant sense of 'same fact'.

If I have succeeded in explaining this notion, the claim that all metaphysically necessary sentences are metaphysically analytic should seem contentious. And in fact, I think that many philosophers are implicitly committed to the the claim that there are metaphysically necessary sentences that are not metaphysically analytic—what one might think of as "laws of metaphysics". For example, some philosophers think that it is metaphysically necessary that there is a God. It is hard to see how this could be metaphysically analytic (assuming that the ontological argument is unsuccessful): surely no amount of penetration into the *meanings* of 'there is' or of 'God' will reveal this sentence to be a logical truth in disguise.

So suppose we revise Criterion 4 by replacing talk of metaphysical necessity with talk of metaphysical analyticity:

Criterion 5 The language of ontology is one in which all *metaphysically an-*

alytic truths can be transformed into logical truths by replacing nonlogical expressions with their metaphysical analyses.

Does this new criterion fare better than its predecessors?

On the face of it, the counterfactual semantic theories entail that each tribe's central dogmas are not only metaphysically necessary but metaphysically analytic. Consider for example the Universalists' claim:

(15) In Organicese, the sentence 'Everything is simple or living' expresses the proposition that if everything were simple or living, everything would be simple or living [alternatively: that every simple or living thing is simple or living].

This certainly *sounds* like it entails that a fully transparent grasp of the meaning of that Organicese sentence would suffice (together with logical acumen) for knowledge of its truth. But Criterion 5 entails that none of the answers to the Special Composition Question are metaphysically analytic, for the same reason that Criterion 4 entails that none of them are metaphysically necessary. So, if we take the counterfactual semantic theories at face value, Criterion 5 succeeds (like Criterion 4, and unlike Criterion 3), in distinguishing the language of ontology from all the languages of the tribes.

But do we really *need* to take the counterfactual semantics as seriously as this? Wouldn't it be enough to regard them instrumentalistically, as devices for systematically assigning *possible-worlds truth-conditions* to sentences in other languages? No it wouldn't—at least if there are metaphysically synthetic necessities. Suppose, again, that it is metaphysically necessary that God exists. Some people who found this fact hard to face might decide to speak a Theologically Impoverished English in which all quantifiers are restricted to things other than God. It could well turn out that the speakers of Theologically Impoverished English can state a compositional semantic theory for English which is adequate in the sense that it yields correct possible-worlds truth-conditions for every English sentence. It might, for example, entail that 'Something is a God' is true in English at a possible world iff at

that world, something would have been a God, had God existed. But this fact does nothing to make us think that Theologically Impoverished English is "just another way of talking". Speakers of Theologically Impoverished English, just like speakers of Astronomically Impoverished English, would have a compelling reason to reform their language so as to render them capable of expressing the facts expressed by such English sentences as 'God exists'. Being able to express facts that are metaphysically necessarily equivalent to these facts is no consolation at all. So if we think that the languages of the tribes are not impoverished in this way, we should expect the tribespeople to be able to characterise the meanings of sentences in other tribes' languages in a way that is finer-grained than mere possible-worlds truth-conditions.

The problem with Criterion 4 was its lack of faithfulness: most foundational ontologists take it for granted that the true answer to the Special Composition Question is metaphysically necessary. Does Criterion 5 do any better in this respect? I think so. Although the expression 'metaphysically analytic' is new, I doubt the concept is. We have the somewhat inchoate idea that certain questions concern *substantive matters of fact* in a way in which others don't. And this distinction does not *obviously* line up with the distinction between the necessary and the contingent. If Moorean non-naturalism about goodness is true, then various conditionals of the form 'If something has such-and-such natural properties, it is good' are necessary but substantive. If God exists, then the claim that he exists is necessary but substantive. Characteristically, foundational ontologists regard *existential* sentences quite generally—even 'there are numbers'—as substantive. And even though the answers to the Special Composition Question are not existential, I think most foundational ontologists will agree that they are relevantly like existential sentences, so that they too must be counted as substantive even if they are I necessary. What prompts these judgements? What is the relevant feature that the answers to the Special Composition Question share with existential sentences? I can't see what the answer could be if not something along the lines of Criterion 5: these sentences cannot be transformed into logical truths by metaphysical anal-

ysis of their constituent nonlogical expressions. The notion of substantiveness involved in these judgements seems at least to entail metaphysical syntheticity in my sense. So there is good reason to think that foundational ontologists are implicitly committed to Criterion 5 or something like it, on the grounds that this principle best explains and systematises the judgements of substantiveness that are characteristic of foundational ontologists.[47]

We can also argue for the faithfulness of Criterion 5 in a more abstract way, by adapting the argument I presented in section 11 for the claim that any language in which the quantifiers were "ultimate" and "fundamental" would have to satisfy Criterion 3. When a quantifier-meaning generates distinctive, interesting metaphysically analytic truths—such as the answers to the Special Composition Question—that must be because it has some correspondingly distinctive and interesting of *internal structure*, perhaps of the sort of structure described by the counterfactual semantics. But the claim that a quantifier-meaning is ultimate and fundamental is surely inconsistent with the possibility that it has this sort of structure. Thus, a *fundamental* quantifier's role in generating metaphysically analytic truth would have to be exhausted by its role in generating *logical* truth in accordance with basic rules of inference. Since this is also true of other logical vocabulary, it follows that the metaphysical analyticity of any sentence in the language of ontology that is not a logical truth must be explained by the distinctive meanings of its constituent nonlogical expressions. But the capacity of a nonlogical expression, such as a predicate, for generating metaphysically analytic truths is revealed by metaphysical analysis. Thus, the only metaphysically analytic sentences in the language of ontology are those whose analyticity can be revealed by logic and the metaphysical analysis of nonlogical expressions.

This argument is at least as good as the corresponding argument for the faithfulness of Criterion 3.[48] And it is stronger than the corresponding argument for the faithfulness of Criterion 4. Believers in metaphysically synthetic necessities will want to resist the latter argument, on the grounds that the necessity of a sentence (e.g. 'there is a God') need not be explained by the distinctive meanings of *any* of its constituents, except in the trivial

sense that the necessity of a sentence is *necessitated* by its meaning. But the whole point of the notion of metaphysical analyticity is that the metaphysical analyticity of a sentence *is* always "rooted" in structural relations among the meanings of its constituents.

15 The sceptic's response

Although Criterion 5 is an improvement in several respects on its predecessors, no determined sceptic should accept it as an adequate explanation of the practice of ontology. For one thing, the sceptic might refuse to understand the notion of metaphysical analyticity that features in Criterion 5. This is not unlikely—as David Lewis remarks, 'any competent philosopher who does not understand something will take care not to understand anything else whereby it might be explained.' (1986, p. 203) Still, I would at least feel that I had made some progress if I could show that the only viable form of scepticism required rejection of a notion which, despite its unfamiliarity, is in my view clearer, and more important for many philosophical purposes, than the notion of metaphysical necessity, if these are two distinct notions.[49]

But in fact, even those sceptics who deign to understand Criterion 5 can and should deny that it is *satisfied* by any of the candidates to be the language of ontology. To get a sense for the plausibility of this response, consider an analogous move that might be made in a debate with a certain sort of sceptic about ethical disagreement. This sceptic claims that apparent ethical disagreement is spurious, arising from divergences in the meanings of words like 'good' and 'right'. For example, the proposition utilitarians express using the words 'Killing one to save five is right' is the same proposition that non-utilitarians express using 'Killing one to save five maximises happiness'. The ethicists protest: 'As we ethicists understand them, claims of the form "An action is right iff it is F"', where "F" is a non-normative predicate, are supposed to be substantive, metaphysically synthetic claims.' To which the sceptic will reply: 'I'm sure you'd *like* to be having a debate about the distribution of some mysterious non-natural property. Unfortunately, naturalism is true. There just aren't any such properties; and you can't stipulate them into existence just by wishing that the predicate 'right' would

express one of them.'

The ontologist who insists that the language of ontology satisfies Criterion 5 is in an analogous position to the ethicist who insists that ethical predicates express non-natural properties. For if the language of ontology satisfies Criterion 5, we will have to admit that there is a whole domain of facts that can be expressed in the language of ontology, but not in any of the languages of the tribes. What metaphysically synthetic Universalese sentence, for example, could express the proposition expressed by the sentence 'Composition is universal' in the language of ontology, if, as Criterion 5 entails, that sentence is metaphysically synthetic? (Criterion 5 may, admittedly, be satisfied by possible languages in which 'Composition is universal' expresses the proposition expressed in Universalese by 'there are dogs', or 'snow is white', or 'the greatest philosopher of the twentieth century asserted that composition is universal'; but these languages are too crazy to be candidates to be the language of ontology.[50]) But the sceptic certainly shouldn't concede that the languages of the tribes are all impoverished in this sort of way. The plausibility of the sceptic's position depends largely on the thought that there *isn't* a whole domain of facts (or at least, a domain of facts to which ontologists have access) that are inexpressible in any of the tribes' languages, just as the plausibility of the sceptical view about ethical disagreement depends on the thought that there just isn't a whole domain of facts (to which ethicists have access) that are inexpressible in any language in which all predicates stand for natural properties. So the sceptic should deny that any of the candidate languages satisfies Criterion 5.

So if Criterion 5 is the best we can come up with in our attempt to initiate the sceptic into the practice of foundational ontology, the sceptic should remain unconvinced. However, as we shall see in the next section, there is an independently-motivated modification of Criterion 5 which will weaken the sceptic's dialectical position.

16 Semantically defective predicates

According to a theory held by many eighteenth-century chemists, burning and the calcination of metals both involved the emission of a substance called 'phlogiston'. In fact, these processes don't involve the emission of anything, but rather involve the absorption of oxygen. There is no phlogiston. Now consider the following question: what is it for something to be phlogiston? I can think of no answer to this question that is acceptable by ordinary standards. Someone might suggest an answer along the following lines:

(16) To be phlogiston is to be an instance of a substance that is characteristically emitted in combustion and the calcination of metals.

But this claim seems problematic, in much the same way as the claim that to be *oxygen* is to be an instance of a substance that is characteristically absorbed in combustion and the calcination of metals. For one thing, it entails that it is necessary that any instance of a substance that is characteristically emitted in combustion and the calcination of metals is phlogiston. But this seems false: couldn't a substance that was not phlogiston have played the characteristic "phlogiston" role?[51]

If 'phlogiston' lacks a metaphysical analysis, then according to Criterion 5, the sentence 'there is no phlogiston' must be metaphysically synthetic in the language of ontology. If it is necessary that there is no phlogiston—as many philosophers now hold, following Kripke's claim (1972, pp. 156–158) that it is necessary that there are no unicorns—this is a metaphysically synthetic necessity, like the alleged necessary existence of God. But there is good reason to think that this sentence *is* metaphysically analytic in ordinary English. 'Phlogiston' belongs to a distinctive class of what I will call *semantically defective* predicates. Besides false scientific theories, such predicates are to be met with in myth and legend ('unicorn'), fiction ('Snark'), and in false philosophical theories ('Form', 'substratum', 'emanates from'...). Since these predicates' relation to other predicates is similar in some ways to the relation of empty names to ordinary referring names, we might want to think of them as

failing to express properties. Be that as it may, the semantic defectiveness of a predicate F leads just as directly to the truth of 'Nothing is F' as the emptiness of a name a leads to the truth of 'Nothing is identical to a'. And the facts about which predicates are semantically defective (unlike the facts about which predicates simply happen not to apply to anything) are *semantic* facts: in the same sense in which a fully transparent grasp of the meaning of 'water' would reveal it to express the property of being H_2O, a fully transparent grasp of the meaning of 'phlogiston' would reveal it to be semantically defective. So if we can make sense of the idea that the truth of 'All water is H_2O' flows from its meaning, we should say the same thing about 'there is no phlogiston'.[52]

Here is a less impressionistic argument for the same conclusion. Suppose the Tritonians developed chemistry without anyone's ever proposing a theory remotely similar to phlogiston theory. As a result, their language has no word that plays anything like the conceptual role of our word 'phlogiston'. They have no very good way to translate the sentence 'there is no phlogiston' into their language. But this difficulty is not worrying in the same way as the failure of Astronomically Impoverished English to translate English sentences. It would be absurd for the Tritonians to advocate linguistic reform on the grounds that without a new word, they will be unable to express the fact about chemistry expressed in English by the sentence 'there is no phlogiston'. And their lack of any word equivalent to 'phlogiston' need not, intuitively, prevent them from stating a perfectly excellent semantic theory for English. But if 'there is no phlogiston' were a metaphysically synthetic sentence in English, it really would be impossible for the Tritonians to give an adequate account of its semantics, given that 'phlogiston' lacks a metaphysical analysis. We would have to conclude that the Tritonians' language really was impoverished, in much the same way as Theologically Impoverished English (p. 37 above). Since the Tritonians' language is *not* impoverished in this way, 'there is no phlogiston' must be metaphysically analytic.

All of these considerations apply just as much to the language of ontology as to ordinary English, since 'phlogiston' presumably means the same thing in both languages. Hence, if

something along the lines of Criterion 5 is to be credible, it will need to be weakened so as to allow the universal quantifications of the negations of semantically defective predicates to be metaphysically analytic. Here is one way to do it:

> **Criterion 6** The language of ontology is one in which all metaphysically analytic truths can be transformed into logical truths by replacing nonlogical expressions with their metaphysical analyses, *and replacing semantically defective predicates with logically contradictory ones*.[53]

In section 14, I suggested that foundational ontologists were implicitly committed to Criterion 5, on the grounds that this explains their disposition to classify certain ontological claims, like the answers to the Special Composition Question, as "substantive", and on the grounds that it partially articulates the meaning of the claim that the quantifiers in the language of ontology are "ultimate" and "fundamental". Now that we are taking account of semantic defectiveness, we can now see that these claims should really have been made on behalf of Criterion 6 rather than Criterion 5.

17 Sceptics unmasked as Nihilists

Criterion 6 opens up a new way in which an answer to the Special Composition Question might be metaphysically analytic in the language of ontology. For Criterion 6 is consistent with the claim that 'is part of' (i.e. 'is a proper part of') is *semantically defective* in the language of ontology, with the result that Nihilism—which is equivalent to the claim that nothing is part of anything—is metaphysically analytic. And Nihilism is unique in this respect: Criterion 6 still rules out the metaphysical analyticity of all the other answers to the Special Composition Question, just as Criterion 5 did.

The claim that 'part' is semantically defective is one that any Nihilist should find utterly natural. From the Nihilist's standpoint, 'is part of' looks just like the characteristic undefined predicates of other thoroughly false philosophical theories: it is a predicate that is supposed

to carve reality at some very natural joint, but in fact there is no remotely natural relation that plays anything like the role parthood is supposed to play. So ontologists should not take it for granted that 'part' is not semantically defective, unless they are taking it for granted that Nihilism is false.

Because of this, it will be much harder for the sceptic to maintain that none of the candidate languages satisfies Criterion 6 than it was to maintain the corresponding view about Criterion 5. For nothing ontologists take for granted rules out an interpretation on which they speak a language in which 'part' is semantically defective, and Nihilism metaphysically analytic. And it seems that the sceptic has already told us about such a language: namely Nihilish, the language spoken by the imaginary tribe of Nihilists. For, given that 'Nothing is part of anything' is metaphysically analytic in Nihilish, and given that 'part' doesn't have a metaphysical analysis in Nihilish, it seems natural to conclude that 'part' is semantically defective in Nihilish. How could Nihilish fail to satisfy Criterion 6? I see four possibilities.

First, 'part', despite the metaphysical analyticity of 'Nothing is part of anything', and despite not having a metaphysical analysis, might somehow fail to be semantically defective in Nihilish. But even if we grant this, what reason could there be for the sceptic to deny that there a language just like Nihilish except that 'part' was semantically defective in it is also one of the candidates to be the language of ontology? Not because making 'part' semantically defective would impoverish the Nihilists' language by depriving them of the ability to report such facts as the one they express using the sentence 'Nothing has any parts': for the sceptic shouldn't think that sentences like this are metaphysically synthetic in the way that would make such worries about expressive power appropriate.

Second, the conciliatory view could be false, as regards the Nihilists: the interpretation of the Nihilists as speaking a language in which Nihilism is true could be incorrect. But it seems unacceptably arbitrary for the *sceptic* to limit the scope of the conciliatory view in this way. If a conciliatory approach is appropriate for the Organicists (for example) but not

for the Nihilists, wouldn't that have to be because organisms are "ultimately real" in a sense in which nonliving composites are not? But the sceptic who refuses to understand talk of "ultimate reality" can't give such an explanation.

Third, there could be some other ontological question as regards which a conciliatory attitude is appropriate, such that the Nihilists' answer to *that* question does not meet the requirement for metaphysical analyticity laid down in Criterion 6.[54] But we are free to flesh out our story about the Nihilists in any way we please. What happens if we make it part of the story that the Nihilists hold an "eliminativist" view about this other question as well—for example, that they are Nominalists who deny the existence of sets, properties, etc?[55] Wouldn't that make it appropriate to interpret them as speaking a language in which the eliminativist view in question was metaphysically analytic—as permitted by Criterion 6? If not, why isn't this limitation in the scope of the conciliatory view about the other question just as unacceptably arbitrary, from the sceptic's point of view, as the limitation in the scope of the conciliatory view about the Special Composition Question envisaged in the previous paragraph?

Fourth, there could be some class of sentences that pose the same sort of problem for Criterion 6 that sentences like 'there is no phlogiston' posed for Criterion 5. These would be sentences which cannot be transformed into logical truths by substitution of metaphysical analyses and substitution of logically contradictory predicates for semantically defective ones, but which nevertheless seem like they should be metaphysically analytic for reasons that apply not just in ordinary English, but in all the languages of the tribes, including Nihilish.[56] But it is hard to see how this could help the sceptic's case. If we find that we have overlooked some further sources of metaphysical analyticity, we can and should modify Criterion 6 so as to accommodate them; the modified principle will be satisfied by Nihilish, but not by any of the other tribes' languages.

Perhaps the sceptic will be able to make one of these avenues look more plausible than I have made it look. But for the moment, let us with due tentativeness conclude that the

sceptic should agree that Criterion 6 is *satisfied*, by some version or variant of Nihilish.

The sceptic also has good reason to grant that Criterion 6 is *discriminating*. In section 15, I argued that the sceptic should think that all the candidates to be the language of ontology are languages, like the languages of the tribes, in which the answer to the Special Composition Question is metaphysically analytic. But Nihilism is the only answer to the Special Composition Question whose metaphysical analyticity is not ruled out by Criterion 6. Hence, the sceptic must conclude that Nihilism is metaphysically analytic, and hence true, in all candidate languages that satisfy Criterion 6.

Finally, I have already made the best case I can, in sections 14 and 16, for the faithfulness of Criterion 6 to the practice of foundational ontology.

So Criterion 6 seems to meet all three of our desiderata. I conclude that the sceptic should accept that foundational ontologists are properly interpreted as speaking a language that satisfies Criterion 6. The sceptic should also hold that this language is one in which 'part' is semantically defective, and Nihilism is metaphysically analytic. Sceptics should, in other words, cast off their scepticism, and announce themselves as what many of us suspected they really were beneath the surface all along: Nihilists.

If the language of ontology is a version of Nihilish, some semantic theory along the lines of (17) or (18) should be true in ordinary English:

(17) 'Something' in the language of ontology expresses the property of being a property that is instantiated by something simple.

(18) 'Something' in the language of ontology expresses the property of being a property that would be instantiated if everything were simple.

These claims would be easy to misunderstand. 'What?', I can imagine someone asking, 'So when ontologists say that there are no composite objects, they express the proposition that ordinary folk would express by saying that there are no simple composite objects, or that if everything were simple, there would be no composite objects? But aren't *those* propositions

completely obvious? If that's all ontological questions amount to, how could reasonable people ever disagree about them?'

Quite easily! Propositions, in the sense in which we have been talking about them, are things which can be believed under one guise while simultaneously being disbelieved, or held in doubt, under another guise. For example, the proposition that all water is H_2O is the proposition that all H_2O is H_2O. If we think that the language of ontology is Nihilish, we will think that the proposition expressed by 'everything is simple' in the language of ontology has *one* guise on which it is obviously true; but it may have other guises under which it is far from obvious. There is a sense in which ontologists who are not Nihilists have contradictory beliefs; but this is a sense in which it happens all the time that perfectly reasonable people have contradictory beliefs. (Of course, we're not forced to adopt this coarse-grained way of talking about propositions; but if we adopt a finer-grained conception, the counterfactual semantics for Nihilish won't entail anything about the propositions expressed by Nihilish sentences.)

Of course, if it were *obvious* that the language of ontology was a version of Nihilish, it would be obvious that Nihilism was true. However, this claim is by no means obvious. I have just presented a rather complicated argument that the claim should be accepted by those who accept the intuition which, in my view, underlies the strongest case for scepticism: that ontological debate doesn't concern some *domain of facts* which are inexpressible in the languages of the tribes, as conceived by the conciliatory view. But many foundational ontologists will vehemently reject this intuition. They will claim that if Nihilish is supposed to be a language in which sentences like 'there are no chairs' and 'there are no people' are true, Nihilish must be a radically impoverished language, which stands to the language of ontology in the same sort of relation that Astronomically Impoverished English stands in to English. I have said nothing at all that could persuade these ontologists to change their minds. My argument for Nihilism has been addressed only to those whose first reaction to the Nihilist view was the conciliatory one: 'We could talk that way if we wanted to, but why

should we, when there are many other ways of talking that are just as good?' I have tried to show that there is less distance than one might expect between the recognition of Nihilism as an option in this way, and the claim that it is—strictly, really, ultimately, in the most fundamental sense...—the truth.[57]

Notes

[1]Cf. Van Inwagen (1990).

[2]According to a variant of the conciliatory view, the tribes all speak the same language, but this language is highly context-dependent. One of the contextual parameters relevant to the interpretation of a great many sentences either is, or is generally co-ordinated with, the speaker's tribe. Thus, although the sentence 'there are chairs' has the same "standing meaning" whether it is uttered by a Universalist or by an Organicist, the former utterances are true and the latter false, just as utterances of the English sentence 'It is raining' are sometimes true and sometimes false. I will generally ignore the difference between this variant of the conciliatory view and the "many languages" approach described in the main text.

Other views about the tribes are of course possible. For example, one could be conciliatory towards only some of the tribes, holding perhaps that while the Universalists and Organicists are generally getting things right, the Nihilists' world-view is systematically mistaken. But hybrid views of this sort seem too arbitrary to be worth taking seriously, and fit much less naturally with the sort of sceptical attitude towards ontological debate which is my ultimate target.

[3]Alternatively, the differences in the meanings of sentences could be attributed not to differences in the meaning of any words, but to differences in the compositional rules by which the meanings of sentences are determined by the meanings of their constituent words.

[4]Cf. Putnam (1987), Hirsch (2002).

[5]How are we to explain the variation in the meaning of sentences like 'a chair is in the room' and 'donkeys bray'? One approach would be to posit variation in the meaning of expressions like 'a' and 'the', and of "bare plurals" like 'donkeys'. This would be the natural approach if, as many philosophers of language hold, these expressions belong to the same distinctive semantic category as words like 'some' and complex expressions like 'all donkeys'.

However, there is an alternative view, defended by Delia Graff (2001) and others, according to which the expressions 'a chair', 'the room' and 'donkeys' are *predicates*. Quantifiers are present in the "logical form" of sentences like 'a chair is in the room', 'donkeys exist', and 'there are donkeys', but they don't correspond to any constituents in these sentences' surface form. (If this story works for 'a', 'the' and 'donkeys', it should probably be extended to many of the other expressions I characterised as quantifiers. 'Few' and 'ten', for example, seem to be likely candidates, since they don't seem to be functioning as quantifiers in sentences like 'my friends are few' or 'those are ten long books'.) If Graff's proposal is correct, the variation in the meaning of these sentences should be attributed not to any variation in the meaning of words, but to variation in structural semantic rules, as envisaged in note 3 above.

[6]This is not to say that *no* predicates are variable. Some predicates have meanings that are closely bound up with quantifiers, so that one would naturally expect them to inherit the variability of the quantifiers. For example, in English, 'father' means 'father of someone'; assuming that this is also true in each the tribes' languages, we will need to posit a variation in the meaning of 'father'. But I don't see that this sort of consideration will warrant us in positing variation in the meaning of a great many one-word predicates. Here I am disagreeing with Hirsch (2002, p. 57), who suggests that 'Quantifier variance may be said to induce a certain kind of systematic difference of meaning in the word "touching" and, by the same token, virtually any other general word.'

[7]Eklund (MS) also points this out, and claims that this is a deep problem for the conciliatory view. Substituting my example for his, his crucial argument appeals to the premise that if 'Mars' differs in meaning between Organicese and Universalese, this can only be because the Organicists cannot meaningfully use names that purport to refer to planets in their language. I agree with Eklund that we should be able to agree that Organicese *can* contain such meaningful names, since we will want to say that sentences like 'Mars doesn't exist' are true in Organicese. But I don't see why there couldn't be some other explanation for the variation in the meaning of the word 'Mars'.

[8]I assume that the introducers of the language did not also change the meanings of semantic expressions like 'true'.

[9]There is a use of 'quantifier'—not mine!—on which it is part of what it is for an expression to be a quantifier that its semantic value should be extensional. If the Organicists use the word 'quantifier' in this way, they should say that 'some' in Universalese is not a quantifier. I see no reason for the conciliator to be dismayed by this result.

[10]Even if for some reason we want to say that 'large', for example, has a different meaning in Universalese, we Organicists can hardly say that there are things that don't belong to the extension of 'large' in our lanugage—hence, things that are not large—that nevertheless belong to the extension of 'large' in Universalese.

[11]Thus the remarks I made in note 6 about the predicate 'father' also apply to the predicate 'extensional'.

[12]Indeed, if 'It is metaphysically necessary that everything is simple or living' is true in Organicese, a parallel argument shows that, from the Organicists' point of view, 'some' in Universalese does not even count as an *intensional* connective, where an intensional connective is one that allows for substitution *salva veritate* of metaphysically necessarily coextensive arguments.

[13]The point of this more explicit counterfactual is .

[14]Including Universalese. Thus, if we are Universalists trying to give a semantics for the quantifiers in Organicese, we face a choice between the theory considered at the beginning of this section, according to which 'something' in Organicese expresses the property *being instantiated by something simple or living*, and a counterfactual theory, according to which it expresses the property *being a property which would have been instantiated if the only composite objects were living things*. But these properties are necessarily equivalent, so these two semantic theories will at least assign the same possible-worlds truth conditions to Organicese sentences. Indeed, we might hope to find some even stronger sense in which we could think of these two theories as equivalent—the concept of 'metaphysical analyticity'

which I introduce in section 14 below might be relevant here.

[15]Thus, if our semantics assigns 'actually' in our own language (Organicese) a character which takes each context to the property of being a proposition that is true at the world-index of that context, we should take the character of 'actually' in Universalese to be a function which takes each context c to the property of being a proposition p such that, at the world-index of c, the following holds: if composition were universal, p would be true.

[16]This response leaves us with a residual worry. Suppose some Universalists say to themselves: 'Let's use "Organicese" as a name for the language spoken by the Organicists—the "language" in the sense of a formal system, a mapping from expressions to semantic values.' These Universalists then go on to utter the sentence 'All the central dogmas of the Organicese are true in Organicese.' How should the Organicists account for the truth of this sentence? If we take the quantifier to be the only relevant variable word, the counterfactual semantics entails that the sentence is true iff all the central dogmas of the Organicese would be true in Organicese, if composition were universal. But this is surely false—the fact that the Organicists would not have been speaking Organicese if composition had been universal is irrelevant in this case.

The only way I can see to avoid this problem to add the name 'Organicese' to the list of variable expressions. The Organicists should claim that the referent of 'Organicese' in Universalese is not Organicese, but the language the Organicists *would* have spoken had composition been universal. This may seem surprising: but in fact, it is only to be expected that names whose references are fixed by descriptions will vary in reference in this way. For example, Organicists and Universalists might both introduce the name 'Giganto' into their language by saying 'Let the biggest thing there is be called "Giganto" '. Despite this similarity in use, the name can hardly have the same referent in both languages, given that in Universalese, the sentence 'Everything is part of Giganto' is true, whereas the Organicese can truly say 'Giganto is a large living being—perhaps a tree or a fungus'.

[17]Here I am relying on the principle of *Centering*: a counterfactual with a true antecedent

is true iff it has a true consequent $[p \supset ((p \mathrel{\Box\!\!\rightarrow} q) \equiv q)]$ (Lewis 1973, p. 26). Without this law, the counterfactual semantics would be in trouble. We would lose, for example, the logical equivalence between '$\exists x(Fx \wedge \exists y(Rxy))$' and '$\exists x \exists y(Fx \wedge Rxy)$'.

This seems as good a place as any to mention another, much more controversial claim about the logic of counterfactuals without which the counterfactual semantics would be in even worse trouble: namely, *Conditional Excluded Middle* $[(p \mathrel{\Box\!\!\rightarrow} q) \vee (p \mathrel{\Box\!\!\rightarrow} \sim q)]$. Without the relevant instances of this law, we will (for example) lose the equivalence between 'It is not the case that all chairs are four-legged' and 'Some chairs are not four-legged'. Conditional Excluded Middle is is defended by Stalnaker (1968, 1981), but denied by Lewis (1973, pp. 79–83). However, it's not so clear that we really need to take sides in this dispute. If we agree with Lewis about the counterfactuals of ordinary English, can't we introduce "Stalnaker-counterfactuals" by stipulating that the Stalnaker-counterfactual '$p \mathrel{\Box\!\!\rightarrow} q$' shall be determinately true whenever if it were the case that q it would be the case that p, determinately false whenever if it were the case that q it wouldn't be the case that p, and otherwise indeterminate in truth value?

Given both Centering and Counterfactual Excluded Middle, together with some uncontroversial claims about the logic of counterfactuals, it is easy to see that the translation that results when the algorithm is applied to any sentence containing only quantifiers, variables, predicates, and truth-functional connectives, is equivalent to the result of prefixing the original sentence with 'if composition were universal...'. Centering lets us drop all iterated occurrences of 'If it were the case that p...'; Counterfactual Excluded Middle entails that a truth-functional complex of nonvacuous counterfactuals with the same antecedent is equivalent to a single counterfactual with a complex consequent.

[18]Thanks to Kieran Setiya and Ted Sider for drawing this to my attention.

[19]This move can be resisted. In recent work, Kit Fine has been advocating a "semantic relationism" in which failures of substitutivity are sometimes explained not by differences in semantic value but by appeal to semantic relations not grounded in semantic values.

[20]I have presented this idea in a "Fregean" form. The idea could also be worked out in a "Millian" manner. On this version of the approach, we would deny that 'frozen water' expresses the property expressed by 'ice', viz. the conjunction of *being frozen* and *being water*. Instead, the property expressed by 'frozen water' is a more complex, though necessarily equivalent, property, constructed by existential quantification and predication from *being frozen*, *being water* and the relation *being the conjunction of*. This property is the one we might antecedently have expected to be the semantic value of the predicate 'has the property that is the conjunction of *being frozen* and *being water*', though if we adopt this view we will want to claim that *that* predicate too expresses an even more complex property than one might antecedently have expected....

Views reminiscent of this one have been defended by Bealer (1982) and Soames (2002, pp. 276–278).

[21]Thus, if some Organicists were to expand their language by stipulating that 'Mars*' is to mean whatever 'Mars' means in Universalese, sentences like 'Mars* is red' and probably also 'Mars* is larger than any living being' will be true in the expanded language, despite the fact that 'there are no red planets' and 'nothing is larger than any living being' are also true in that language. Hence the rule of existential generalisation will fail in the expanded language. (c.f. Eklund MS).

[22]To take just one example, David Braun (1993) defends a view which entails that any two empty names should be intersubstitutable *salva veritate* in all contexts.

[23]At least, this will be true if we assume that 'possibly' doesn't vary in meaning between the two languages. This could be denied. Indeed, it would be quite natural to deny it, in view of the equivalence of 'possibly' and 'in some possible world'. The idea would be that just as the Universalists "recognise more objects" than the Organicists, so they "recognise more possible worlds", such as one in which Mars has different parts.

[24]This will only work, of course, if there is some property in which no essential reference is made to Mars or any other non-simple, non-living thing, of which we can truly say in

Universalese that it is an individual essence of Mars. This will be denied by certain opponents of essentialism: for example, by those who maintain that it is possible for the particles that actually compose Mars to compose something other than Mars, even though they and all other simple and living things are arranged just as they actually are. Given that the Organicists can truly say 'Necessarily, if the simple and living things are arranged just as they actually are, then everything is just as it actually is', it is hard to see how the Organicists could accommodate the truth in Universalese of this sort of anti-essentialist view—unless they posit some sort of variation in the meaning of 'possibly', as contemplated in the previous note. However, this sort of anti-essentialism is not very popular: many philosophers think, for example, that all the facts about macroscopic objects, including facts about their identities, are determined by the facts about microscopic objects.

[25]Hirsch (2002) endorses this argument. However, Hirsch seems to think that the mere *possibility* of languages in which different meanings for the quantifiers lead to different answers to the Special Composition Question being true is enough to establish this claim. He claims (p. 68) that 'by any reasonable standards of interpretation' we should interpret people as speaking a language in which their claims about composite objects are generally true, if such a possible language exists. I disagree: since systematic error is possible, the principle of charity cannot be the whole of the theory of interpretation (cf. Lewis 1984), and I see nothing "unreasonable" about the claim that this is one of those cases where the principle of charity gives the wrong result.

[26]Lewis (1986) claims that the notion of "vague existence" (i.e. vagueness in unrestricted quantifiers) makes no sense. The kernel of the argument: 'Vagueness is semantic indecision.... But how could [unrestricted quantification] be vague? What would be the alternatives between which we haven't chosen?' (p. 212; see also Sider 2003) Advocates of vague existence may have felt obliged to reject this question: but one lesson of the counterfactual semantics is that there is no need for them to do so.

[27]Cf. Hirsch 2002, p. 62.

[28]If talk of "two languages" sounds odd, it might seem better to say that there is just one language involved, but that that language is context-sensitive, in such a way that the sentence 'there are chairs' expresses a different proposition in the ontology room from the one it expresses in ordinary contexts. For my purposes, this view is not importantly different from the "two languages" view (see note 2 above).

The data also admit of a pragmatic style of explanation: although the sentence 'there are chairs' *semantically expresses* the same proposition no matter when it is uttered, either the ontologists or the folk typically use this sentence to *convey* some different proposition. Although I have chosen to give a central place to semantic idioms, my central points could be cast just as well in pragmatic terms.

[29]Cf. Rorty 1982.

[30]What features does a language have to have to be candidate to be the language of ontology? For one thing, we certainly don't want to interpret the ontologists as speaking an *impoverished* language. For another thing, we want the language of ontology to be like ordinary English in the same way as the languages of the tribes: like ordinary English, that is, except for the difference in the interpretations of the quantifiers, together with correlative differences in the interpretations of predicates like 'father' whose meanings are closely bound up with the quantifiers, and of certain names and demonstratives. Beyond this, we should rule out intuitively *crazy* interpretations, such as one on which the proposition ontologists express with the sentence 'Composition is universal' is the same one ordinary folk express with 'there are dogs'. Moreover, if we accept that the members of the tribes should give counterfactual semantic theories for one anothers' languages, it would be very natural to require that these counterfactual semantic theories should also be true in the language of ontology.

[31]Or as speaking the same context-sensitive language as everyone else, but occupying a special context relative to which that language satisfies the criterion. Or, at least, as using sentences about ontology in such a way as to *communicate* the propositions they express in

a language that satisfies the criterion, even if the sentences have the same *semantic content* for them that they have in ordinary English. See note 28 above.

[32]One could of course resist interpreting ontologists as speaking a language satisfying our criterion by finding *another* criterion, incompatible with ours, that is also satisfied, discriminating, and even more faithful than ours to the practice of foundational ontology. But this would not be a vindication of scepticism!

[33]The pessimistic view that such disputes are merely terminological is defended by Unger (1984). King and Stanley (MS) provide a useful survey of the debate.

[34]For arguments against Yablo's claims, see Stanley 2001.

[35]More generally, we could say that a property of properties p_1 is a restriction of a property of properties p_2 iff there is some property r such that for any property q, the proposition that q instantiates p_1 is logically equivalent to the proposition that the conjunction of q and r instantiates p_2. Similar definitions could be given for the sorts of semantic values which we might assign to other sorts of quantifiers—e.g. binary relations among properties, in the case of words like 'some' and 'all'.

[36]This is not the only possible explanation. Stanley and Szabo (2000) argue, by appealing to certain facts about cross-sentential anaphora, that the context-dependence of these sentences has its source not in the quantifiers but in common nouns like 'bottle' and 'thing'.

[37]We can certainly imagine languages that don't allow for any maximally unrestricted contexts. On the question whether a language of this sort could be anyone's native language, see Williamson MS.

[38]Of course, we might attempt to define an unrestricted quantifier as a maximally unrestricted member of some distinguished set of possible quantifier-meanings. But how is this distinguished set to be characterised? It won't do to say that the distinguished set comprises all those quantifier-meanings that are *extensional*. Since the meaning of 'extensional' varies in the same way as the meanings of the quantifiers (as I pointed out on page 6 above), we can truly say in *any* of the languages we're considering that the meaning of 'something' is a

maximally unrestricted member of the set of extensional quantifier meanings.

[39]David Lewis is perhaps an exception to this generalisation. Although he doesn't use the word 'analytic'—the word hardly ever appears in his work—he does claim that Mereology (a theory of composition which entails Universalism) is "certain" and "ontologically innocent" (Lewis 1991, pp. 75–87)—features which one would naturally associate with analyticity. In conversation, he maintained that it was a mere historical accident that Mereology was not counted as part of "logic".

[40]It doesn't matter much how we define "logical truth", provided that the answers to the Special Composition Question don't themselves count as logical truths, even if they happen to be analytic. We could follow Tarski in defining a logical truth as a sentence that remains true no matter how the nonlogical vocabulary is interpreted: provided we count 'part' as a piece of nonlogical vocabulary, this will have the desired effect.

[41]This last step in the argument might be resisted. Some philosophers think, for example, that the sentence 'Nothing is both green and red all over' is an analytic truth, despite the fact that there are no relevant conceptual analyses of 'red all over' and 'green all over', and despite the fact that the analyticity in question clearly is due entirely to the meanings of the predicates, and not to anything distinctive about the meaning of the quantifier over and above its logical features. Those who hold this view will deny that Criterion 3 is satisfied by any of the candidate languages. For surely 'green' and 'red' have the same meaning in the language of ontology as in ordinary English: if so, then 'Nothing is both green and red all over' will be analytic in the language of ontology as well as in ordinary English.

[42]It might be suggested that the Tritonians should translate 'water' using some sort of descriptive phrase, like 'the stuff that actually falls from the sky of Earth as rain, fills the rivers and lakes of Earth, and is potable to Earthlings'. This translation would doubtless be preferable for certain purposes. But unless Jackson (1998) and Chalmers (1996) are right that it is analytic that water, if there is any, actually does all these things, this translation will have exactly the same flaw of translating synthetic sentences into analytic ones.

[43]And if you think that there's more to the semantics of 'water' to that—for instance, some sort of *mode of presentation* of the property of being H_2O—I don't see why the Tritonians shouldn't be able to specify that as well.

[44]A similar moral could be drawn from a real-world case discussed by Kripke (1979, p. 133). Kripke reports that Hebrew contains two words for Germany, 'Ashkenaz' and 'Germaniah', where English has only one. The best we can do in English to translate the Hebrew sentence 'If Ashkenaz exists, then Ashkenaz = Germaniah' is to use the sentence 'If Germany exists, then Germany = Germany'. This is not a perfect translation, since it translates a synthetic sentence into an analytic one. But the fact that we can do no better than this is no reason for us to regard our language as impoverished.

[45]I haven't said what would be involved in giving a metaphysical analysis of a nonlogical expression other than a predicate, but I hope this can be understood by analogy. A metaphysical analysis of a *name* would be naturally reported using a sentence of the form 'to be a is to…'. For example, whenever 'a' and 'b' are directly referential names, 'to be a is to be b', which are true whenever '$a = b$' is; so Criterion 4 allows for the necessity of sentences like 'Hesperus is Phosphorus'. It is an interesting question whether there any *interesting* metaphysical analyses of directly referential names—interesting truths about the *essences* of things, as Fine (1994) would put it. I find it hard to make sense of this idea. The direct referentialist's claim that there is an object such that to be a is just to be identical to that object seems to me to be inconsistent with the truth of any more interesting claim of the form 'to be a is to…'. At least, these claims seem inconsistent if the quantifiers we are using are the "fundamental" ones of the language of ontology. In slogan form: the only objects that *ultimately* exist are *primitive* objects.

The metaphysical analysis of a nonlogical expression that is not a predicate or name will most likely have to be a *contextual* analysis of some sort. I will set aside, as unlikely to be relevant in the present context, the question what such analyses might look like.

[46]The answers to the Special Composition Question are not the only sentences whose

necessity in the languages of the tribes follows from the counterfactual semantics. The semantics also entails that the sentence 'there is no gunk'—i.e. 'there are no objects all of whose proper parts have proper parts of their own'—is necessary in each tribe's language. For the Nihilists will interpret this sentence in any of the other tribes' languages as expressing the proposition that if there were just enough new objects to make true such-and-such principles about the circumstances under which some objects compose something, there would be no gunk. And all these proposition are true, since the only objects one will ever need to add to make the antecedent of such a counterfactual true are objects composed of actual, simple objects.

Some ontologists report a strong intuition that 'there is no gunk' is not necessary (see, e.g., Armstrong 1978, p. 32, Lewis 1991, p. 70, Sider 1993). So this is a respect in which the language of ontology, as conceived by some of its speakers, is unlike any of the languages of the tribes. However, I don't think we could rely on this as our criterion for explaining to the sceptic what is supposed to be distinctive about the language of ontology. For any sceptic who is serious about the claim that Nihilish is a possible, non-impoverished language will simply deny that this criterion is satisfied by any of the candidate languages. (C.f. section 15 below.)

[47]What about those ontologists who (like Lewis) claim that their favoured theory of composition is a logical truth, or at least that it is like a logical truth in all philosophically significant respects? They certainly won't want to say that the theory in question is "substantive". Nevertheless, we might hope to make Criterion 5 acceptable even to them by explicitly defining metaphysically analytic sentences as those that "express the same fact" as a truth of some *standard* logic that does not include any theory of composition. Of course these ontologists won't regard the notion of metaphysical analyticity, so explained, as a philosophically important one. But I don't see why this should prevent them from understanding and accepting Criterion 5. (Unless they think that all logical truths, and all sentences that are like logical truths in all philosophically significant respects, express the

very same fact, in the relevant sense. But why would anyone think that?)

Proponents of Nihilism also have a special reason to regard their favoured answer to the Special Composition Question as metaphysically analytic, which I will discuss further in sections 16 and 17 below.

[48]In fact, it is considerably better. In note 41 above, I considered a possible objection to the argument for the faithfulness of Criterion 3: since 'Nothing is both red and green all over' is analytic, despite the fact that it cannot be transformed into a logical truth by substitution of conceptual analyses, there must be more to a predicate's capacity for generating analytic truth than is revealed by conceptual analysis. The corresponding objection to the argument for the faithfulness of Criterion 5 is much weaker. Granted that 'Nothing is both red and green all over' is *metaphysically* analytic, why shouldn't we think that there must be some revealing account—perhaps a physicalist account—of *what it is* to be red all over and *what it i s* to be green all over, from which the incompatibility of these predicates could be seen to flow, if only we knew it?

A natural moral one might draw from this case is that we sometimes have *some* a priori access to facts about the natures of properties—for example, the fact that the properties *being red all over* and *being green all over* are incompatible in virtue of their logical structure—even when we don't have a priori knowledge of *all* the facts about the natures of the properties in question. Whenever this happens, there will be analyticities that do not follow from conceptual analyses, even though they do follow from metaphysical analyses.

[49]Given the sorts of things I said when I was trying to introduce the expression 'metaphysically analytic', outright refusal to understand the expression seems like an excessive reaction. It would be much more plausible for someone to claim not to see how 'metaphysical analyticity' could be anything other than another word for metaphysical necessity. Indeed, I myself am inclined to think that the two notions may be the same—at least, many of the things philosophers have said in trying to explain the expression 'metaphysically necessary' seem to point towards this interpretation. But this moderate claim need not undermine the

explanatory power of Criterion 5. For Criterion 5 to succeed where Criterion 4 failed, in being faithful to the practice of foundational ontology, it needn't be the case that metaphysical analyticity and metaphysical necessity really *are* two different statuses. It suffices that those foundational ontologists who regard their preferred answers to the Special Composition Question as metaphysically necessary should, by and large, be disposed to *think* that they are two different statuses.

[50]We can make this argument a bit more precise by making use of the assumption that all the candidate languages are ones in which a counterfactual semantics for the languages for the tribes is true (see note 30 above). If any language of this sort satisfies Criterion 5, the languages of the tribes—Universalese, for example—must be impoverished. For in any such language, we could state the following argument: 'The truth-values of Universalese sentences are determined entirely by the facts about what things *would* be like if composition were universal. But *these* facts do not determine whether composition is universal: they neither metaphysically analytically entail that composition is universal, nor that it isn't universal. Hence, no sentence of Universalese expresses any proposition metaphysically analytically equivalent to the proposition that composition is universal. The same goes for any other metaphysically synthetic general proposition about the ontology of composition. So Universalese is entirely blind to the facts expressed by general claims about composition in our language.'

[51]What about the metaphysical analysis 'To be phlogiston is to be an instance of a substance that is *actually* characteristically emitted in combustion and the calcination of metals'? I take it that this metaphysical analysis is equivalent to the claim that to be phlogiston is to be an instance of a substance such that necessarily, if things are thus-and-so [insert a complete description of the actual world here], s is characteristically emitted.... If this is right, the analysis is one on which 'there is no phlogiston' can be transformed into a logical truth, albeit an immensely complicated one. So there is no need to revise Criterion 5 to allow for the metaphysical analyticity of this sentence. If the same is true of all semantically

defective predicates, the argument of the next section will work even if we leave Criterion 5 as it is.

[52]This presentation makes it sound like semantic defectiveness is a feature possessed by a predicate once and for all, in virtue of its distinctive kind of meaning. But it might be better to think of semantic defectiveness as a relation between a predicate in a language and the quantifiers of that language. Consider, for example, a language just like ordinary English except that "something" expresses the property of being a property which would be instantiated if everything that is actually an oxygen atom were a phlogiston atom instead. (Never mind whether anything could make it true that someone was speaking this language, as opposed to one in which 'phlogiston' meant what 'oxygen' actually means.) In this language, 'something is phlogiston' is true, despite the fact that 'phlogiston' means the same thing that it means in English. Is 'phlogiston' semantically defective in this language? We could say 'yes', but that would mean that we could no longer justify the claim that ordinary predicates like 'oxygen' are not semantically defective by appealing to the truth of sentences like 'something is oxygen'. I think it's better to keep the entailment from ' "F" is semantically defective' to ' "Nothing is F" is true', by making semantic defectiveness a relation between predicate-meanings and quantifier-meanings.

[53]A further weakening is called for to allow for the metaphysical analyticity of sentences involving empty names, like 'It is not the case that Vulcan is a planet'. But I have not thought it worth while to burden the reader with the question how such a weakening should best be expressed.

[54]Peter van Inwagen pointed out that the question we get if we replace every occurrence of 'x is part of y' in the Special Composition Question with 'every point of space occupied by x is occupied by y' (or 'every point of spacetime occupied by x is occupied by y') might well be such a question.

[55]As regards the question mentioned in note 54, the relevant eliminativist view is the claim that nothing ever *occupies* anything. This view is held both by *relationists*, who deny

the existence of space[-time] points, and by *super-substantivalists*, who deny the existence of material objects that are not composed of space[-time] points.

[56]Sentences involving modal operators are one potential source of such counterexamples. It seems quite plausible, for example, that 'it is possible that there should be exactly three simple things' is metaphysically analytic. But can this sentence be transformed into a logical truth by substitution of metaphysical analyses? Before we can answer this question, we will have to get clear on what it would mean to give a metaphysical analysis of an operator like 'it is possible that'.

Vague predicates are another potential source of counterexamples: 'No bald person is hirsute' seems to be metaphysically analytic, but who would venture to give a metaphysical analysis of 'bald' or 'hirsute'? If we wanted to accommodate this case without giving up Criterion 6, we might try saying that while it is indeterminate what the true metaphysical analyses of 'bald' and 'hirsute' are, it is determinate that they are logically incompatible.

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