KNOWLEDGE AND REALITY

Essays in Honor of Alvin Plantinga

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Chapter 2

PROPERTIES

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Although this paper makes extensive and essential use of the concept "abstract object," I am not going to try to explain or give any sort of account of this concept. That would be another paper. I will use the name 'platonism' for the thesis that there are abstract objects, and 'nominalism' for the thesis that there are no abstract objects. It has been suggested (I'm thinking of John Burgess and Gideon Rosen and their book *A Subject without an Object: Strategies for the Nominalistic Interpretation of Mathematics* (1997)[1]) that although a lot of philosophical work has been devoted to the question whether real analysis (or some other substantial part of mathematics) can be interpreted or revised or reconstructed in terms acceptable to nominalists, not nearly enough work has been devoted to the question why anyone should care whether something was acceptable to nominalists. It seems to me, however, that it is perfectly evident that nominalism is to be preferred to platonism, and perfectly evident *why* nominalism is to be preferred to platonism. And if nominalism is to be preferred to platonism, it is no great mystery why a philosopher of mathematics should want to have available a nominalistically acceptable reconstruction of all of, or some essential core of, mathematics.

   And why do I say that nominalism is to be preferred to platonism? Since that question is not my topic, I will simply gesture vaguely at an answer. Platonists must say that reality, what there is, is divided into two parts: one part *we* belong to, and everything in "our" part is more like us than is anything in the other part. The inhabitants of the other part are radically unlike the things in our part—any given object in the other part is vastly *more* unlike any object *x* in our part than anything in our part is unlike

x—and we can't really say much about what the things in the other part are like. (Compare the task of describing the properties of a pen and the properties of the number four.) It seems to me to be evident that it would be better not to believe in the other part of reality, the other category of things, if we could manage it. But we can't manage it. In the first part of this paper, I shall try to explain why we can't get along without *one* kind of abstract object: properties.

1.   WE CAN'T GET ALONG WITHOUT PROPERTIES

How can the dispute between those who affirm and those who deny the existence of properties (platonists and nominalists) be resolved? The ontological method invented, or at least first made explicit, by Quine and Goodman (and illustrated with wonderful ingenuity in David and Stephanie Lewis's "Holes") suggests a way to approach this question.[2] Nominalists and platonists have different beliefs about what there is. Let us therefore ask this: How should one decide what to believe about what there is? According to Quine, the problem of deciding what to believe about what there is is a very straightforward special case of the problem of deciding what to believe. (The problem of deciding what to believe is, to be sure, no trivial problem, but it is a problem everyone is going to have somehow to come to terms with.) If we want to decide whether to believe that there are properties—Quine tells us—we should examine the beliefs we already have, the theses we have already, for whatever reason, decided to believe, and see whether they "commit us" (as Quine says) to the existence of properties. But what does this mean? Let us consider an example. Suppose we find the following proposition among our beliefs:

Spiders share some of the anatomical features of insects.

This proposition may be expressed in what Quine calls the canonical language of quantification as follows:

It is true of at least one thing that it is such that it is an anatomical feature and insects have it and spiders also have it.

(The canonical language of quantification does not essentially involve the symbols '∀' and '∃' and it does not essentially involve variables. There is *no* difference in meaning between 'It is true of at least one thing that it is such that it is an anatomical feature and insects have it and spiders also have it' and '∃*x* (*x* is an anatomical feature and insects have *x* and spiders also have *x*)'.)

But, obviously, if it is true of at least one thing that it is such that it is an anatomical feature and insects have it and spiders also have it, then at least one thing is an anatomical feature. And what is an anatomical feature if not a property?

Does this little argument show that anyone who believes that spiders share some of the anatomical features of insects is committed to platonism, and, more specifically, to a belief in the existence of properties? How might a nominalist respond to the argument? Suppose we present the argument to Nora, a convinced nominalist (who believes, as most people do, that spiders share some of the anatomical features of insects). Assuming that Nora is unwilling simply to have inconsistent beliefs, there would seem to be four possible ways for her to respond to it:

(1)   She might become a platonist.

(2)   She might abandon her allegiance to the thesis that spiders share some of the anatomical features of insects.

(3)   She might attempt to show that, despite appearances, it does not follow from this thesis that there are anatomical features.

(4)   She might admit that her beliefs (her nominalism and her belief that spiders share some of the anatomical features of insects) are apparently inconsistent, affirm, as an article of her nominalistic faith, that this inconsistency is apparent, not real, and confess that, although she is confident that there is some fault in our alleged demonstration that her belief about spiders and insects commits her to the existence of anatomical features, she is at present unable to discover it.

Possibility (2) is not really very attractive. It is unattractive for at least two reasons. First, it seems to be a simple fact of biology that spiders share some of the anatomical features of insects. Secondly, there are many, many sentences, sentences that seem to express "simple facts," that could have been used in place of 'Spiders share some of the anatomical features of insects' in an essentially identical argument for the conclusion that there are properties. Possibility (4) is always an option, but no philosopher is likely to embrace it except as a last resort. What Nora is likely to do is to try to avail herself of Possibility (3). If she does, she will attempt to find a *paraphrase* of 'Spiders share some of the anatomical features of insects', a sentence that (i) she could use in place of this sentence, and (ii) does not even *seem* to have 'There are anatomical features' as one of its logical consequences. If she can do this, she will be in a position to contend that the commitment to

the existence of anatomical features that is apparently "carried by" her belief about spiders and insects is only apparent. And she will be in a position to contend—no doubt further argument would be required to establish this—that the apparent existence of anatomical features is *mere* appearance (an appearance that is due to certain forms of words we use but needn't use).

Is it possible to find such a paraphrase? (And to find paraphrases of all the other apparently true statements that seem to commit those who make them to the reality of properties?) Well, yes and no. 'Yes' because it is certainly possible to find paraphrases of the spider-insect sentence that involve quantification over some other sort of abstract object than anatomical features—that is, other than properties. One might, for example, eliminate (as the jargon has it) the quantification over properties on display in the spider-insect sentence in favor of quantification over, say, concepts. No doubt any work that could be done by the property "having an exoskeleton" could be done by the concept "thing with an exoskeleton." But—here's the 'No'—a nominalist will be no more receptive to an ontology that contains concepts than to an ontology that contains properties. When I say it is not possible to get along without asserting the existence of properties, therefore, what I mean is that it is not possible to get along without asserting the existence of properties—*or* something that a nominalist is not going to like any better than properties.

Now Quine, the founder of the feast, would very likely want to break in at this point and tell us that we can find paraphrases of the spider-insect sentence that require "quantification over" (as he would say) no abstract objects but *sets*—an "ontic commitment" (as he would say) much to be preferred to an ontic commitment to properties. This is an important thesis, and Quine's arguments in support of his thesis are important arguments. I am afraid that in this paper I can do no more than acknowledge the existence of Quine's thesis and his supporting arguments.

Let us ask this. Is it possible to provide sentences like 'Spiders share some of the anatomical features of insects' with *nominalistically acceptable* paraphrases? My position is that it is not. I cannot hope to present an adequate defense of this position, for an adequate defense of this position would have to take the form of an examination of all possible candidates for nominalistically acceptable paraphrases of such sentences, and I cannot hope to do that. The question of nominalistically acceptable paraphrase will be answered, if at all, only as the outcome of an extended dialectical process, a process involving many philosophers and many years and many gallons of ink. I can do no more than look at one strand of reasoning in this complicated dialectical tapestry. My statement, "We can't get along without properties" must be regarded as a promissory note. But here is the ten-dollar co-payment on the debt I have incurred by issuing this note.

Suppose a nominalist were to say this: "It's easy to find a nominalistically acceptable paraphrase of 'Spiders share some of the anatomical features of insects'. For example: 'Spiders are like insects in some anatomically relevant ways' or 'Spiders and insects are in some respects anatomically similar'." A platonist is likely to respond as follows (at least this is what *I'd* say):

> But these proposed paraphrases seem to be quantifications over "ways a thing can be like a thing" or "respects in which things can be similar." If we translate them into the canonical language of quantification, we have sentences something like these:
>
> > It is true of at least one thing that it is such that it is a way in which a thing can be like a thing and it is anatomical and spiders are like insects in it.
> >
> > It is true of at least one thing that it is a respect in which things can be similar and it is anatomical and spiders and insects are similar in it.
>
> These paraphrases, therefore, can hardly be called nominalistically acceptable. If there are such objects as ways in which a thing can be like a thing or respects in which things can be similar, they must certainly be *abstract* objects.

What might the nominalist say in reply? The most plausible reply open to the nominalist seems to me to be along the following lines.

> My platonist critic is certainly a very literal-minded fellow. I didn't mean the 'some' in the open sentence '*x* is like *y* in some anatomically relevant ways' to be taken as a *quantifier*: I didn't mean this sentence to be read '∃*z* (*z* is a way in which a thing can be like a thing and *z* is anatomical and *x* is like *y* in *z*)'. That's absurd. One might as well read 'There's more than one way to skin a cat' as '∃*x* ∃*y* (*x* is a way of skinning a cat and *y* is a way of skinning a cat and *x* ≠ *y*)'. I meant this open sentence to have no internal logical structure, or none beyond that implied by the statement that two variables are free in it. It's just a form of words we learn to use by comparing various pairs of objects in the ordinary business of life.

And here is the rejoinder to this reply:

> If you take that line you confront problems it would be better not to have to confront. Consider the sentence '*x* is like *y* in some physiologically relevant ways'. Surely there is some logical or structural or syntactical

relation between this sentence and '*x* is like *y* in some anatomically relevant ways'? One way to explain the relation between these two sentences is to read the former as '∃*z* (*z* is a way in which a thing can be like a thing and *z* is physiological and *x* is like *y* in *z*)' and the latter as '∃*z* (*z* is a way in which a thing can be like a thing and *z* is anatomical and *x* is like *y* in *z*)'. How would *you* explain it? Or how would you explain the relation between the sentences '*x* is like *y* in *some* anatomically relevant ways' (which you say has no logical structure) and '*x* is like *y* in *all* anatomically relevant ways'? If neither of these sentences has a logical structure, how do you account for the obvious validity of the argument

> Either of two female spiders of the same species is like the other in all anatomically relevant ways.

> *Hence*, an insect that is like a given female spider in some anatomically relevant ways is like any female spider of the same species in some anatomically relevant ways?

If the premise and conclusion of this argument are read as having the logical structure their syntax suggests, the validity of this argument is easily demonstrable in textbook quantifier logic. If one insists that they have no logical structure, one will find it difficult to account for the validity of this argument. That is one of those problems I alluded to, one of those problems it would be better not to have to confront. (One of thousands of such problems.)

I suggest that we can learn a lesson from this little exchange between an imaginary nominalist and an imaginary platonist: that one should accept the following condition of adequacy on philosophical paraphrases.

Paraphrases must not be such as to leave us without an account of the logical relations between predicates that are obviously logically related. Essentially the same constraint on paraphrase can be put in these words: A paraphrase must not leave us without an account of the validity of any obviously valid argument.

Accepting this constraint has, I believe, a significant consequence. This consequence requires a rather lengthy statement.

Apparent quantification over properties pervades our discourse. In the end, one can avoid quantifying over properties only by quantifying over other sorts of abstract object—"ways in which a thing can be like a thing," for example. But most philosophers, if forced to chose between quantifying over properties and quantifying over these other objects

would probably prefer to quantify over properties. The reason for this may be illustrated by the case of "ways in which a thing can be like a thing." If there really are such objects as ways in which a thing can be like a thing, they seem to be at once intimately connected with properties and, so to speak, more *specialized* than properties. What, after all, would a particular "way in which a thing can be like a thing" be but the sharing of a certain property? (To say this is consistent with saying that not just any property is such that sharing it is a way in which a thing can be like a thing; sharing "being green" can plausibly be described as a way in which a thing can be like a thing, but it is much less plausible to describe sharing "being either green or non-round"—if there is such a property— as a way in which a thing can be like a thing.) And if this is so, surely, the best course is to accept the existence of properties and to "analyze away" all apparent quantifications over "ways in which a thing can be like a thing" in terms of quantifications over properties.

It is the content of this lengthy statement that I have abbreviated as "We can't get along without properties."

This argument I have given has some obvious points of contact with the so-called Quine-Putnam indispensability argument for mathematical realism.[3] But there are important differences between the two arguments—I mean besides the obvious fact that my argument is an argument for the existence of properties and not an argument for the existence of specifically mathematical objects. It should be noted that my argument is not that we should believe that properties exist because their existence is an indispensable postulate of science. Nor have I contended that the scientific indispensability of properties is *evidence* for the existence of properties. I have not maintained that, because of the scientific indispensability of properties, any adequate account of the success of science must affirm the existence of properties. For one thing, my argument has nothing in particular to do with science. Science does indeed provide us with plenty of examples of sentences that must in some sense, on some analysis, express truths and also, on the face of it, imply the existence of properties. For example: 'Many of the important properties of water are due to hydrogen bonding'. But our everyday, pre-scientific discourse contains a vast number of such sentences, and these will serve my purposes as well as any sentences provided by the sciences. If our spider-insect sentence is insufficiently non-scientific to support this thesis, there are lots of others ('The royal armorer has succeeded in producing a kind of steel that has some but not all of the desirable characteristics of Damascus steel'). My argument could have been presented in, say, the thirteenth century, and the advent of modern science has done nothing to make it more cogent.

More importantly, I have not supposed that the fact (supposing it to be a fact) that quantification over properties is an indispensable component of our discourse is any sort of *evidence* for the existence of properties. That's as may be; I neither affirm that thesis nor deny it. It is simply not a premise of my argument, which is not an epistemological argument. Nor is my argument any sort of "transcendental" argument or any sort of inference to the best explanation; I have not contended that the success of science, or the success of our everyday, pre-scientific discourse, cannot be accounted for on nominalistic premises. Again, that's as may be. If I have appealed to any general methodological principle, it is only this: If one doesn't believe that things of a certain sort exist, one shouldn't say anything that demonstrably implies that things of that sort do exist. (Or, at any rate, one may say such things only if one is in a position to contend, and plausibly, that saying these things is a mere manner of speaking—that, however convenient it may be, it could, in principle, be dispensed with.) This methodological rule does not, I think, deserve to be controversial. We would all agree, would we not, that if *p* demonstrably implies the existence of God, then atheists who propose to remain atheists shouldn't affirm *p*? Or not, at any rate, unless they can show us how they could in principle dispense with affirming *p* in favor of affirming only propositions without theological implications?[4]

I suppose I ought to add—the point needs to be made somewhere—that if one *could* show how to eliminate quantification over properties in a nominalistically acceptable way, that achievement, by itself, would have no ontological implications. After all, Quine has shown how to eliminate quantification over everything but pure sets, and Church has shown how to eliminate quantification over women.[5] The devices of Quine and Church would be of ontological interest if "containing only pure sets" or "not containing women" were desirable features for an ontology to have. But they're not. If what I said in my brief opening remarks is right, however, "containing no abstract objects" *is* an advantage in an ontology.

I will close this part of the paper with a point about philosophical logic—as opposed to metaphysics. My argument fails if there is such a thing as substitutional quantification; and it fails if there is such a thing as quantification into predicate positions. (Or so I'm willing to concede. If either substitutional quantification or quantification into predicate positions is to be found in the philosopher's tool kit, then defending my thesis—"We can't get away with it"—becomes, at the very least, a much more difficult project.) I say this: substitutional quantification and quantification into non-nominal positions (including predicate positions) are both meaningless. I have argued elsewhere for the meaninglessness of substitutional quantification.[6] I accept Quine's arguments for the meaninglessness of quantification into predicate positions.[7]

2.   IF WE AFFIRM THE EXISTENCE OF PROPERTIES, WE OUGHT TO HAVE A THEORY OF PROPERTIES

By a "theory of properties," I mean some sort of specification of, well, the *properties* of properties. If one succeeds in showing that we cannot dispense with quantification over properties, one's achievement does not tell us much about the intrinsic features of these things. In my opening remarks, I said that we didn't know much about the properties of properties. I am now making the point that the sort of argument for the existence of properties I have offered does not tell us much about the nature of properties. The whole of our discourse about things, on the face of it, defines what may be called "the property role," and our argument can be looked on as an attempt to show that something must play this role. (The property role could, in principle, be specified by the Ramsey-style methods that Lewis sets out in "How to Define Theoretical Terms."[8]) But it tells us nothing about the intrinsic properties of the things that play this role that enable them to play this role. In "Holes," Bargle argues that there must be holes, and his argument is in many ways like our argument for the existence of properties. That is, he uses some ordinary discourse about cheese and crackers to define the "hole role," and he attempts to show that one can't avoid the conclusion that something plays this role. Argle, after an initial attempt to evade Bargle's argument, accepts it. He goes on, however, to show how things acceptable to the materialist can play the hole role. In doing this, he spells out the intrinsic properties of the things he calls holes (when they are holes in a piece of cheese, they are connected, singly-perforate bits of cheese that stand in the right sort of contrast to their non-cheesy surroundings), and he, in effect, shows that things with the intrinsic properties he assigns to holes are capable of playing the role that Bargle's argument shows is played by something-we-know-not-what.

We are not in a position to do, with respect to properties, anything like what Argle has done with respect to holes, for, as I have observed, we cannot say anything much about the intrinsic properties of properties. The plain fact is: we platonists *can't* describe those somethings-we-know-not-what we say play the property role in anything like the depth in which Argle describes the things that (*he* says) play the hole role. Argle can describe the things he calls 'holes' as well as he can describe anything; we platonists can describe any concrete object in incomparably greater depth than we can any property.

I wish it weren't so, but it is. Or so *I* say. Some will dissent from my thesis that properties are mysterious. David Lewis is a salient example. If Lewis is right about properties, the property-role is played by certain *sets*, and one can describe at least some of these sets as well as one can describe any set.[9] In my view, however, Lewis is not right about properties. In the

next section, I will explain why I think this. (A qualification. I have said that, according to Lewis, certain sets are suitable to play the property role. In Lewis's view, however, it may be that our discourse defines at least two distinct roles that could equally well be described as "property-roles." Although—Lewis tells us—the sets he calls 'properties', can play *one* of the property roles, they are unsuited for the other (or the others)—if indeed our discourse does define two or more roles that can plausibly be described as "property-roles."[10])

3.   LEWIS'S THEORY OF PROPERTIES AS SETS (WITH SOME REMARKS ON MEINONGIAN THEORIES OF PROPERTIES AS SETS)

According to Lewis the property "being a pig" is the set of all pigs, including those pigs that are inhabitants of other possible worlds than ours. But, in saying this, I involve myself in Lewis's notorious modal ontology. Let us, for the moment, avoid the questions raised by Lewis's modal ontology and say that Lewis's theory is one member of a species of theory according to all of which the property "being a pig" is the set of all possible pigs. Members of this species differ in their accounts of what a possible pig is. (That is to say, they differ in their accounts of what a *possibile* or *possible object* is, for we are interested not only in the property "being a pig" but in properties generally. According to all theories of this kind, every property is a set of *possibilia* and every set of *possibilia* is a property.) Lewis's theory will be just the member of this species according to which possible objects are what Lewis says possible objects are, and will be like the other members of the species on all points not touching on the nature of possible objects. The other members of the species are Meinongian theories, or all of them I can think of are.

What is a possible object? A Meinongian, or, rather, a neo-Meinongian like Terry Parsons or Richard Sylvan, has a simple answer to this question.[11] Just as a possible proposition is a proposition that is possibly *true*, and a possible property is a property that is possibly *instantiated*, a possible object is an object that is possibly *existent*. And, the neo-Meinongians maintain, objects are not necessarily and automatically existent. Although any object must *be*, there are objects that could fail to *exist*. In fact, most of the objects that are *do* fail to exist, and many objects that do exist might have been without existing. (Paleo-Meinongians would not agree that any object must be; they contend that many objects, so to speak, don't be.)

What is to be said about neo-Meinongianism? What Lewis says seems to me to be exactly right: the neo-Meinongians have never explained what they

mean by 'exist'.[12] We anti-Meinongians and they mean the same thing by 'be'. We anti-Meinongians say that 'exists' and 'be' mean the same thing; the neo-Meinongians say that this is wrong and 'exists' means something else, something other than 'be'. (And, they say, the meanings of the two verbs are so related that—for example—the powers that exist must form a subset of the powers that be.) Unfortunately, they have never said what this "something else" is. I would add the following remark to Lewis's trenchant critique of neo-Meinongianism. The only attempt at an explanation of the meaning of 'exists' that neo-Meinongians have offered proceeds by laying out supposed examples of things that are but do not exist. But, in my view, the right response to every such example that has ever been offered is either "That does too exist" or "There is no such thing as that." And, of course, if there is no distinction in meaning between 'be' and 'exist', then neo-Meinongianism cannot be stated without contradiction. If 'be' and 'exist' mean the same thing, then the open sentence 'x exists' is equivalent to '$\exists y\ x = y$'. And, if that is so, 'There are objects that do not exist' is logically equivalent to 'Something is not identical with itself'. Since neo-Meinongians obviously do not mean to embrace a contradiction, their theory depends on the premise that 'exist' means something other than 'be'. But, so far as I can see, there is nothing for 'exists' *to* mean but 'be'. In the absence of further explanation, I am therefore inclined to reject their theory as meaningless.

Let us turn to Lewis's version of the properties-as-sets-of-possible-objects theory. According to Lewis, there are no objects that do not exist. Objects, however, may be divided into those that *actually* exist and those that do not actually exist. The category "possible object" comprises both those things that actually exist and those things that exist but do not actually exist ("*merely* possible objects"). But what do we mean when we say of objects that do not actually exist that they, nevertheless, exist? Isn't a flying pig an excellent example of an object that doesn't actually exist? And isn't it true of any flying pig that it doesn't exist—doesn't exist without qualification? No, says Lewis. Flying pigs are not objects of which we can correctly say that they do not exist "in the philosophy room." Outside the philosophy room, in the ordinary business of life, we can say, and say truly, that flying pigs do not exist, despite the fact that we say truly in the philosophy room that there are flying pigs. When we say, outside the philosophy room, that there are no flying pigs, our use of the quantifier is like that of someone who looks in the fridge and says sadly, "There's no beer." When I say, in the philosophy room, "There are flying pigs, but they're one and all non-actual," I'm saying this: There are [an absolutely unrestricted quantifier; the philosophy room is just that place in which all contextual restrictions on quantification are abrogated] flying pigs, and they're spatio-temporally unrelated to me'.

The problem with Lewis's theory, as I see it, is that there is no reason to think that there is anything spatiotemporal that is spatiotemporally unrelated to me, and, if there *is* anything in this category, I don't see what it has to do with modality.[13] Suppose there *is* a pig that is spatiotemporally unrelated to me—or, less parochially, to us. Why should one call it a "merely possible pig"—or a "non-actual pig"? Why are those good things to call it? This is not the end of the matter, however. Even if a pig spatiotemporally unrelated to us *can't* properly be called a merely possible pig, it doesn't follow immediately that Lewis's theory of properties is wrong. If what Lewis calls the principle of plenitude is true—if, as Lewis maintains, there exists (unrestricted quantifier) a pig having, intuitively speaking, every set of properties consistent with its being a pig—, then there might be something to be said for identifying the set of all pigs (including those spatiotemporally unrelated to us) with the property "being a pig." (If there exist pigs having every possible combination of features, there must be pigs that are spatially or temporally unrelated to us: if every pig was spatially and temporally related to us, there wouldn't be room for all the pigs Lewis says there are.) There might be something to be said for this identification, that is, even if the set of all pigs couldn't properly be called 'the set of all pigs, both actual and merely possible'. But even if there are pigs spatiotemporally unrelated to us, there is, so far as I can see, no good reason to accept the principle of plenitude—even as it applies to pigs, much less in its full generality.

On the face of it, the set of pigs seems to represent far too sparse a selection of the possible combinations of characteristics a pig might have for one to be able plausibly to maintain that this set could play the role "the property of being a pig." According to both the neo-Meinongians and Lewis, the set of pigs has a membership much more diverse than most of us would have expected, a membership whose diversity is restricted only by the requirements of logical consistency (for Lewis) or is not restricted at all (for the neo-Meinongians). If I am right, both Lewis and the Meinongians have failed to provide us with any reason to accept this prima facie very uncompelling thesis.

4.   A THEORY OF PROPERTIES

There is only one real objection to Lewis's theory of properties: it isn't true. It is a model of what a good theory should be, insofar as theoretical virtue can be divorced from truth. In this, the final section of this paper, I present a theory of properties that, or so *I* say, does have the virtue of truth. Alas, even if it has that virtue, it has few others. Its principal vice is that it is very nearly vacuous. It can be compared to the theory that taking opium is followed by sleep because opium possesses a sleep-inducing virtue. That

theory about the connection of opium and sleep, as Lewis has pointed out, is not *entirely* vacuous; it is inconsistent with various theses, such as the thesis that taking opium is followed by sleep because a demon casts anyone who takes opium into sleep. The theory of properties I shall present, although it is pretty close to being vacuous, is inconsistent with various theses about properties, and some of these theses have been endorsed by well-known philosophers. (A proper presentation of this theory would display properties as members of a more inclusive class of entities, relations. But I will not attempt to discuss relations within the confines of this paper.)

The theory I shall present could be looked on as a way of specifying the property role, a way independent of and a little more informative than specifying this role via the apparent quantifications over properties that are to be found in our discourse. This theory identifies the property role with the role "thing that can be said of something." This role is a special case of the role "thing that can be said." Some things that can be said are things that can be said *period*, things that can be said *full stop*. For example: that London has a population of over seven million is something that can be said; another thing that can be said is that no orchid has ever filed an income-tax return. But these things—'propositions' is the usual name for them—are not things that can be said *of* anything, not even of London and orchids. One can, however, say *of* London that it has a population of over seven million, and one can also say this, this very same thing, of New York. And, of course, one can say it of Mexico City and of Oxford. (It can be said only falsely of Oxford, of course, but lies and honest mistakes are possible.) I will assume that anything that can be said of anything can be said of anything else. Thus, if there are such things as topological spaces, one can say of any of them that it is a city with a population of over seven million, or that it has never filed an income-tax return. I don't know why anyone would, but one could.

Let us call such things, propositions and things that can be said of things, *assertibles*. The assertibles that are not propositions, the things that can be said *of* things, we may call *unsaturated* assertibles. I will assume that the usual logical operations apply to assertibles, so that, for example, if there are such assertibles as "that it has a population of over seven million" and "that it once filed an income-tax return," there is also, automatically as it were, the assertible "that it either has a population of over seven million or else has never filed an income tax return." (In a moment, I shall qualify this thesis.) It follows that the phrase I used to specify the unsaturated-assertible role— "things that can be said of things"—cannot be taken too literally. For if there are any unsaturated assertibles, and if there are arbitrary conjunctions and disjunctions and negations of such unsaturated assertibles as there are, it will be impossible for a finite being to say most of them of anything. "Things that can be said of things" must therefore be understood in the sense "things that can in principle be said of things" or perhaps "things of a type such that

some of the simpler things of that type can be said of things" or "things that a being without limitations could say of things." All these ways of qualifying 'said of' could do with some clarification, but I cannot discuss the problems they raise here. (One possible solution to the problem raised by human limitations for our role-specification would be to substitute something like 'is either true or false of' for 'can be said of' in our specification of the unsaturated-assertible role. This is, in my view, a promising suggestion, but I do think that 'can be said of' has certain advantages in an initial, intuitive presentation of the theory of properties I shall present.)

It seems to me that there are such things as unsaturated assertibles: there are things that can be said of things. It seems to me that there is an x such that x can be said of y and can also be said of z, where z is not identical with y. One of the things you can say about the Taj Mahal is that it is white, and you can say that about the Lincoln Memorial, too. (I take it that 'about' in this sentence is a mere stylistic variant on 'of'.) If, during the last presidential campaign, you had heard someone say, "All the negative things you've said about Gore are perfectly true, but don't you see that they're equally applicable to Bush?", you wouldn't have regarded this sentence as in any way problematical; not logically or syntactically or lexically problematical, anyway. (And if the speaker had said 'perfectly true *of him*' instead of 'perfectly true' your only objection could have been that this phrasing was wordy or pedantic.) I say it seems to me that there are such things. I certainly see almost no reason to *deny* that there are such things, other than reasons that are reasons for denying that there are abstract objects of any sort. (For assertibles of any sort, if they exist, are certainly abstract objects.) I say 'almost no reason' because there are, I concede, powerful "Russellian" objections to admitting assertibles into our ontology. If there are things that can be said, there are things that can be said of things that can be said. And it seems evident that one of them must be "that it can't be said truly of itself." But that way paradox lies. I will not discuss this problem, for the simple reason that it is a problem that confronts anyone who has a theory of properties—or a theory of sets. (But here is a qualification I promised a moment ago. Perhaps there is such an assertible as "that it can be said truly of itself" but, for the reason I have just alluded to, no such assertible as "that it can't be said truly of itself.")

I propose, therefore, that properties be identified with unsaturated assertibles, with things that can be said of things. It seems unproblematical that unsaturated assertibles can successfully play the property role. And I would ask this: what is the property whiteness but something we, in speaking of things, occasionally predicate of some of them? And what is predicating something of something but *saying* the former *of* the latter? Well, perhaps someone will say that it sounds wrong or queer to say that whiteness is one of the things we can say of the Taj Mahal. I don't think that arguments that

proceed from that sort of premise have much force, but I won't press the point. Anyone who thinks that unsaturated assertibles—from now on I'll say simply 'assertibles'—can't play the property role but is otherwise friendly to my arguments may draw this conclusion from them: there are, strictly speaking, no properties, but assertibles may be pressed into service to do the work that would fall to properties if it were not for the inconvenient fact that there are no properties to do it. If we suppose that there are assertibles, and if we're unwilling to say that assertibles are properties, what advantage should we gain by supposing that there are, in addition, things that we *are* willing to call properties?

Now if properties are assertibles, a wide range of things philosophers have said using the word 'property' are false or unintelligible. For one thing, a property, if it is an assertible, cannot be a part or a constituent of any concrete object. If this pen exists, there are no doubt lots of things that are in some sense its parts or constituents: atoms, small manufactured items; perhaps, indeed, every sub-region of the region of space exactly occupied by the pen at *t* is at *t* exactly occupied by a *part* of the pen. But "that it is a writing instrument," although it can be said truly of the pen—and is thus, in my view, one of the properties of the pen—is not one of the parts of the pen. That it is not is as evident as, say, that the pen is not a cube root of any number. Nor is "that it is a writing instrument" in any sense present in any region of space. It makes no sense, therefore, to say that "that it is a writing instrument" is "wholly present" in the space occupied by the pen. In my view, there is just nothing *there* but the pen and its parts (parts in the "strict and mereological sense"). There are indeed lots of things true of the pen, lots of things that could be said truly about the pen, but those things do not occupy space and cannot be said to be wholly (or partly) present anywhere.

If properties are assertibles, it makes no sense to say that properties are somehow more basic ontologically than the objects whose properties they are. A chair cannot, for example, be a collection or aggregate of the properties ordinary folk say are the properties of a thing that is not a property, for a chair is not a collection or aggregate of all those things one could truly say of it. Nor could the apparent presence of a chair in a region of space "really" be the co-presence in that region of the members of a set of properties, because, if for no other reason, there is no way in which a property can be present in a region of space. (I hope no one is going to say that if I take this position, I must believe in "bare particulars." A bare particular would be a thing of which nothing could be said truly, an obviously incoherent notion.)

Properties, if they are assertibles, are in no way objects of sensation. If colors are properties and properties are assertibles, then the color white is the thing that one says of something when one says of it that it is white. And this assertible is not something that can be seen—just as extracting a cube root is

not something you can do with a forceps. We never see properties, although we see *that* certain things have certain properties. (Looking at the pen, one can see that what one says of a thing when it one says it's cylindrical is a thing that can be said *truly* of the pen.) Consider sky blue—the color of the sky. If it is not true now, it was certainly true ten thousand years ago that nothing was sky blue. Let's suppose, for the sake of the illustration, that it's true now. (If I say that nothing is sky blue, it's not to the point to tell me that the sky is sky blue or that a reflection of the sky in a pool is sky blue, for there is no such thing as the sky and there are no such things as reflections. And don't tell me I perceive a sky-blue quale or visual image or sense-datum, for there are no qualia or visual images or sense-data. I may be sensing sky-bluely when I look at the sky on a fine day, but that shows at most that something has the property "sensing sky-bluely"; it does not show that something has the property "being sky blue.") Now some philosophers who would agree with my thesis that nothing is sky blue infer from this proposition the conclusion that it's possible to *see* the property "being sky blue." After all, this property is in some way involved in the visual experience I have when I look at the sky, and this fact can't be explained by saying that I'm seeing something that has it, for nothing has it. And what is there left to say but that I see the uninstantiated property "being sky blue"? I would answer as follows: since the property "being sky blue" is just one of those things that are available to say about a cup or a sheet of wrapping paper or a shirt (or, for that matter, human blood or the Riemann curvature tensor), we obviously don't *see* it. It's involved in our sensations when we look at the sky only in this Pickwickian sense: we're sensing in the way in which visitors to the airless moon would sense during the lunar day if the moon were surrounded by a shell of sky-blue glass. And why *shouldn't* we on various occasions sense in the way in which we should sense *if* an X were present when there's in fact no X there?

Some philosophers have said that existence is not a property. Are they right or wrong? They are wrong, *I* say, if there is such a thing to be said about something as that it exists. And it would seem that there is. Certainly there is this to be said of a thing: that it might not have existed. And it is hard to say how there could be such an assertible as "that it might not have existed" if there were no such assertible as "that it exists."

Some philosophers have said that there are individual essences or haecceities, "thisnesses" such as "being *that* object" or "being identical with Alvin Plantinga." Are they right or wrong? They are right, *I* say, if one of the things you can say about something is that it is identical with Alvin Plantinga. Is there? Well, it would seem that if Plantinga hadn't existed, it would still have been true that he might have existed. (It would seem so, but it has been denied.) And it is hard to see how there could be such a saturated

assertible as "that Alvin Plantinga might have existed" if there were no such unsaturated assertible as "that it is Alvin Plantinga."

Some philosophers have said that although there are obviously such properties as redness and roundness, it is equally obvious that there is no such property as "being either red or not round." They have said that in their view, the world, or the Platonic heaven, is "sparsely," not "abundantly," populated with properties. Are they right? If properties are assertibles, only one answer to this question seems possible: No. If one of the things you can say about something is that it is red and another thing you can say about something is that it is round, then, surely, one of the things you can say about something is that it is either red or not round. (Mars is either red or not round, and *that*, the very same thing, is also true of the Taj Mahal and the number four—given, of course, that all three objects exist.) It is, of course, our answer to this question—"abundantly"—that eventually leads to our troubles with Russell's Paradox. But, again, the alternative doesn't seem possible.

Some philosophers have denied the existence of uninstantiated properties. Is this a plausible thesis? If properties are assertibles, it is a very implausible thesis indeed, for there are obviously things that can be said of things that can't be said *truly* of anything: that it's a—non-metaphorical—fountain of youth, for example. (No doubt someone, Ponce de León or some confidence trickster, has said this very thing about some spring or pool.) Having answered the question whether there are uninstantiated properties, at least to my own satisfaction, I'll briefly consider a couple of related questions. Are there such things as *necessarily* uninstantiated properties? Yes indeed, for one of the things you can say about Griffin's *Elementary Theory of Numbers* is that it contains a correct proof of the existence of a greatest prime. (You can say it about *Tess of the D'Urbervilles*, too.) And, of course, if one of the things you can say about something is that it is round and another thing you can say about something is that it is square, then (by a principle I've endorsed several times), one of the things you can say about something is that it is both round and square.

Some philosophers have said that properties exist only contingently. This would obviously be true if there could not be uninstantiated properties, but it would be possible to maintain that there are uninstantiated properties and that, nevertheless, some or all properties are contingently existing things. Could this be? Well, it would certainly seem not, at least if the accessibility relation is symmetrical. One of the things you can say about something is that it is white. Are there possible worlds in which there's no such thing to be said of anything? Suppose there is such a world. In that world, unless I'm mistaken, it's not even possibly true that something is white. Imagine, if you don't mind using this intellectual crutch, that God exists in a world in which there's no such thing to be said of a thing—not "said *truly* of a thing": "said

of a thing *simpliciter*"—as that it is white. Then God, who is aware of every possibility, is not aware of the possibility that there be something white. (If God could be aware of or consider the possibility that there be something white, he would have to be aware that one of the things that can be said of something is that it is white.) Therefore, there must be no such possibility in that world as the possibility that there be something white. Therefore, with respect to that possible world, the possible world that is in fact actual is not even possible; that is to say, in that world, the world that is in fact the actual world doesn't exist. But then the accessibility relation is not symmetrical. And I should want to say about the proposition that the accessibility relation is symmetrical what Gödel said of the axioms of set theory: it forces itself upon the mind as true. Admittedly, there are steps in this argument that can be questioned and have been questioned—or at least the corresponding steps in certain very similar arguments have been questioned. (I give one example of an objection, not the most important objection, that could be made to this argument: the argument at best proves that 'that it is white' denotes *an* object in, or with respect to, every possible world; it doesn't follow from this that this phrase denotes the *same* object in every possible world.) But the argument seems convincing to me. At any rate, it is the argument that will have to be got round by anyone who wants to say that properties do not exist necessarily.

There are many other theses and questions about properties than those I have considered. But the theses and questions I have considered are all those, or so it seems to me, to which the theory of properties as assertibles is relevant. The fact that this theory is inconsistent with various theses about properties shows that, although it may be very close to being vacuous, it does not manage to be entirely vacuous.[14]

ENDNOTES

[1] See Burgess and Rosen 1997, Part 1A, "Introduction".

[2] Quine 1961; Quine 1960: Chap. VII; Goodman and Quine 1947; Lewis and Lewis 1983.

[3] See Putnam 1971, reprinted in its entirety in Laurence and Macdonald 1998.

[4] For an important objection to this style of reasoning, see Melia 1995. I intend to discuss Melia's paper elsewhere; to discuss it here would take us too far afield. I wish to thank David Manley for impressing upon me the importance of Melia's paper (and for correspondence about the issues it raises).

[5] In 1958, Alonzo Church delivered a lecture at Harvard, the final seven paragraphs of which have lately been making the e-mail rounds under the title (not Church's), "Ontological Misogyny." In these paragraphs, Church wickedly compares Goodman's attitude toward abstract objects to a misogynist's attitude toward women. ("Now a misogynist is a man who finds women difficult to understand, and who in fact considers them objectionable incongruities in an otherwise matter-of-fact and hard-headed world. Suppose then that in

analogy with nominalism the misogynist is led by his dislike and distrust of women to omit them from his ontology.") Church then shows the misogynist how to eliminate women from his ontology. (In case you are curious: We avail ourselves of the fact that every woman has a unique father. Let us say that men who have female offspring have two modes of presence in the world, primary and secondary. Primary presence is what is usually called presence. In cases in which we should normally say that a woman was present at a certain place, the misogynist who avails himself of Church's proposal will say that a certain man—the man who would ordinarily be described as the woman's father—exhibits secondary presence at that place . . . .) "Ontological Misogyny" came to me by the following route: Tyler Burge, Michael Zeleny (Department of Mathematics, UCLA), James Cargile.

Quine's reduction of everything to pure sets (well, of physics to pure sets, but physics is everything for Quine) can be found in his 1976. I thank Michael Rea for the reference.

[6] Van Inwagen 1981. The arguments presented in this paper are similar to the more general arguments of William G. Lycan's fine paper, "Semantic Competence and Funny Functors" (1979). Van Inwagen 1981 is reprinted in my 2001.

[7] See the section of Quine 1970 entitled "Set Theory in Sheep's Clothing" (pp. 66-68).

[8] Lewis 1983: 78-95.

[9] See Section 1.5, "Modal Realism at Work: Properties," of Lewis 1986, pp. 50-69.

[10] See Lewis 1999a. See especially the section entitled "Universals," pp. 10-24.

[11] See Parsons 1980 and Routley 1980 (Richard Routley = Richard Sylvan).

[12] See Lewis 1999b.

[13] I have gone into this matter in a great deal of detail in van Inwagen 1986.

[14] A longer version of this paper (with the appropriately longer title "A Theory of Properties") will appear in *Oxford Studies in Metaphysics*.

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