

THE END OF COUNTERPART THEORY*

Journal of Philosophy 100 (2003): 521-549.

Counterpart theory says roughly that, for any object O and any property F, O is possibly F if and only if O has a counterpart that is F. Moreover, O is essentially F if and only if all of O's counterparts are F.¹ According to David Lewis, the theory's leading advocate, our counterparts are typically a lot like us. Lewis holds that I am possibly forty feet tall if and only if there is someone in a universe spatiotemporally isolated from ours—one of Lewis's "possible worlds"—who, though otherwise appropriately like me, is forty feet tall.

Many find counterpart theory attractive.² But most reject Lewis's modal realism. So most deny that we have flesh-and-blood counterparts in unreachable but humanly inhabited universes. They insist, instead, that our counterparts are somehow "abstract." It is that sort of counterpart theory—the sort endorsed by virtually every counterpart theorist except for Lewis himself—that I shall argue is untenable. (Indeed, as we shall see, there are good reasons to reject *any* reduction of modal properties to abstract worlds, counterpart-theoretic or otherwise.) Because I do not believe Lewis's ontology, I think his version of counterpart theory is also mistaken. And so—I conclude—we should reject every sort of counterpart theory.

I. COUNTERPART THEORY AND THE ANALYSIS OF MODAL PROPERTIES

The counterpart theorist says that, for any object O and any property F, O is possibly F if and only if O has a counterpart that is F. But she does not believe that the having of counterparts' going hand in hand with the having of modal properties is some sort of cosmic

modal coincidence. Her idea is not that, as a synthetic necessity, counterpart relations merely but unerringly “track” modal properties. Rather, the counterpart theorist thinks that O’s having a counterpart that is F is *what it is* for O to be possibly F. Standing in the relevant counterpart relation is *what it is* to have the “corresponding” modal property. Thus counterpart theory is about *analyzing modal properties*. (Or about analyzing possibilities. Although I shall usually describe counterpart theory as analyzing O’s property of *being possibly F*, we could just as well describe it as analyzing *the possibility of O’s being F*.)

We can further illustrate this point—that counterpart theory is in the business of providing counterpart-theoretic analyses of modal properties—by considering the “classic” objection to counterpart theory. That objection charges counterpart theory with changing the subject. When I ask whether I might have been happier, so the objection goes, I am asking whether *I*—this very person—might have been happier. It is simply not to answer my question to say that an otherworldly someone else is happier, even if he is very much like me, even if we call him ‘Merricks’s counterpart’.

This sort of objection was raised early on by both Alvin Plantinga and Saul Kripke. Plantinga says:

According to [counterpart theory] there is a world W...that includes the existence of an unwise counterpart of Socrates...And how is that even relevant to the claim that Socrates himself—the Socrates of [our world]—could have been unwise? There could have been a foolish person a lot like Socrates; how does this fact show that *Socrates* could have been unwise?³

And consider the following from Kripke:

The counterpart of something in another possible world is *never* identical with the thing itself. Thus if we say ‘Humphrey might have won the election (if only he had done such-and-such)’, we are not talking about something that might have happened to *Humphrey* but to someone else, a “counterpart.” Probably, however, Humphrey could not care less whether someone *else*, no matter how much resembling him, would have been victorious in another possible world. Thus, Lewis’s view seems to me even more bizarre than the usual notions of transworld identification that it replaces.⁴

The counterpart theorist’s rejoinder is that the unwise counterpart of Socrates is relevant to Socrates’s being possibly unwise because Socrates’s having such a counterpart is *one and the same thing* as his being possibly unwise. Similarly, she insists, the very thing Humphrey cares about—possibly winning the election—just is, is analyzed as, his having a counterpart who wins.⁵

Now Humphrey might *think* he does not care about having a victorious counterpart. But Humphrey’s thinking this, the counterpart theorist maintains, does not imply that counterpart theory is false. It implies, instead, that Humphrey is mistaken about how to analyze modal properties. Humphrey’s situation, the counterpart theorist should claim, is like that of the parched man who says “I could not care less about H₂O; I want water!”

The counterpart theorist’s claim here is, of course, controversial. Obviously, those who hold that the classic objection itself undermines counterpart-theoretic analyses of modal properties will look askance on any response that trades on such analyses. Perhaps we are at an impasse, since, just as obviously, the counterpart theorist will insist that such analyses are correct. But all that matters for our purposes is that the counterpart theorist will defend such analyses.

II. NO “GENERIC” COUNTERPART-THEORETIC ANALYSES

The counterpart theorist must say that there are counterpart-theoretic analyses of modal properties. But any such analysis, if it is to have a hope of being successful, is committed to a substantive account of the nature of counterparts and possible worlds. To see why I say this, consider—for *reductio*—a purported analysis free of any such commitments. Consider this purely “generic” counterpart-theoretic analysis:

(1) O is possibly forty feet tall *is analyzed as* O has a counterpart that is forty feet tall.⁶

In these debates, ‘counterpart’ is a technical term, its meaning stipulated by the counterpart theorist. And *something* must be stipulated; if nothing at all were stipulated, (1) would be meaningless rather than merely generic. Moreover, if (1) is to be generic, the stipulated meaning cannot favor one account of counterparts over another. The only meaning that seems to fit the bill—the only thing about counterparts upon which all accounts agree—is the following. An object O’s counterpart is that which, by having a non-modal property, thereby gives the “modal version” of that property to O.⁷

So (1), if truly generic, is really a condensed version of the following:

(2) O is possibly forty feet tall *is analyzed as* there is a forty-foot-tall something other than O whose being forty feet tall is *what it is* for O to be possibly forty feet tall.

(In order to accommodate abstract counterpart theory, (2) itself should be read as a gloss of the more careful:

(2*) O is possibly forty feet tall *is analyzed as* there is something other than O that stands in some relation to the property of *being forty feet tall* and whose being thus related to that property is *what it is* for O to be possibly forty feet tall.

If O's counterpart is an abstract object it will have no height whatsoever. So it discharges its duty by standing in some relation other than exemplification to *being forty feet tall*. But for ease of exposition and only when it will cause no confusion, I shall continue to speak as if an object's alleged counterparts have the properties that it possibly has.)

Even by the counterpart theorist's own lights, (2) is not a good analysis of O's being possibly forty feet tall. For O's being possibly forty feet tall is invoked in the analysis. Thus (2) is unacceptably circular. (Likewise with (2*.) Given only generic counterpart theory, (1) fares no better. For, as noted, (1)'s use of 'counterpart' makes it merely a condensed statement of (2).

(1) is done in by its use of 'counterpart'. But we cannot repair (1) by simply dropping that word. For consider:

(3) O is possibly forty feet tall *is analyzed as* there is something other than O that is forty feet tall.

Even if counterpart theory is correct, (3) is not. Not just any old forty-foot-tall object will do the trick. (The result of making the corresponding change to (2*) is even worse:

(3*) O is possibly forty feet tall *is analyzed as* there is something other than O that stands in some relation to the property of *being forty feet tall*.)

The analyses of (1) and (2) say too much; that of (3) says too little. To get a sense of how to avoid both extremes, contrast (1) through (3) with an analysis of the sort Lewis might give:

(4) O is possibly forty feet tall *is analyzed as* there is something other than O, in a universe spatiotemporally isolated from ours, that is appropriately similar to O but that is forty feet tall.

This analysis will prompt further questions, such as: What does “appropriately similar” amount to? But it is not circular, giving it a leg up on (1) and (2). Moreover, (4) says enough about the object invoked in the analysis to separate it from the obviously inadequate (3). Thus (4), unlike (1) through (3), is at least a legitimate contender.

The counterpart theorist need not agree with Lewis on the nature of counterparts; she need not endorse (4). But if the counterpart theorist hopes to analyze modal properties successfully, she must avoid the errors of (1) through (3) and emulate the virtues of (4). And to do that, she must tell us something about what alleged counterparts are like. There can be no generic counterpart-theoretic analyses of modal properties.

Those who write in any detail about counterpart theory typically say something about the nature of counterparts. Often, they emphasize that our counterparts need not be concrete human beings located in physical worlds; they emphasize that counterpart theory as such does not imply Lewis's extravagant ontology.⁸ But this had better not be the end of their story. For no counterpart-theoretic analyses of modal properties are endorsed by saying only that counterpart theory is true but David Lewis got it wrong. After all, the implicit circularity afflicting (1) also afflicts:

(1*) O is possibly forty feet tall *is analyzed as* O has an *abstract* counterpart that is forty feet tall.

I have considered various attempts at a generic analysis that begin with the idea that our counterparts have the properties that we possibly have. We have seen the problems with that approach. But before leaving attempted generic analyses behind, there is one other approach worth noting. An aspiring generic analyst might offer:

(5) O is possibly forty feet tall *is analyzed as* O is represented as being forty feet tall in an abstract possible world.

(5) does not invoke the term 'counterpart' in its analysis. Thus (5) gains superiority over (1) and (1*). And it achieves generic status by failing to allude to counterparts by way of some other, more controversial, description. But these gains and achievements amount to

leaving counterparts out altogether. And so (5) fails to deliver a bona fide counterpart-theoretic analysis, generic or otherwise.

In other words, (5) illegitimately presupposes that every analysis of a modal property in terms of what a possible world represents is counterpart-theoretic. (5) can be modified so that it rules out non-counterpart theoretic approaches. But doing so involves specifying, in particular, *how* a world represents O as forty feet tall. As we shall see in what follows, this takes us down one or another controversial path. Once we start down one or another of these paths, we part ways with one or another counterpart theorist. Thus our account ceases to be generic. (Saying a world represents O by having a *counterpart* of O would be suitably generic; but of course it reintroduces the circularity that undermined (1) and (1*.)

In the sections following, I shall attack non-generic counterpart-theoretic analyses of modal properties. A defender of counterpart theory might be tempted to reply that objections based on this or that account of the nature of counterparts are not objections to counterpart theory as such. But, as we have seen, counterpart theory as such implies that there are counterpart-theoretic analyses of modal properties. Abstract counterpart theory as such is committed to analyses in terms of some detailed account or other of the nature of abstract counterparts and abstract worlds, analyses that take us beyond suggestions like (1) and (1*). If all those analyses fail, then so does abstract counterpart theory itself.

My objections to generic counterpart-theoretic analyses are part of my overall argument against counterpart theory. Their primary point is to prepare the way for that argument, to get us to see that the counterpart theorist as such is committed to there being some more detailed analysis or other of modal properties, something more detailed than the sketchy answers considered above. But my overall argument against counterpart theory aside, the objections

above—all by themselves—should trouble most counterpart theorists. For most counterpart theorists have little more to say about the nature of counterparts than that they are “abstract.” Thus the objections above show that most counterpart theorists have no counterpart-theoretic analyses of modal properties. And to endorse counterpart theory—which just is the theory that some such analyses are true—without understanding and endorsing any such analysis is to buy a pig in a poke, to leap without looking, to endorse a theory without knowing its content.

III. HELLER’S ABSTRACT COUNTERPART THEORY

Most abstract counterpart theorists say little about the nature of counterparts. But not all are so reticent. Mark Heller presents a detailed account of the nature of abstract worlds and counterparts.⁹ (Indeed, among defenders of abstract counterpart theory, Heller may be the most explicit about the details.) I shall raise five objections to Heller’s counterpart-theoretic analyses of modal properties.

I shall develop these objections in some detail, in part because my target is not Heller alone. For after discussing Heller, I shall show how basically those same objections undermine almost every attempt at analyzing modal properties in terms of abstract counterparts. That is, I shall argue that they directly undermine all such attempts except those that rely upon *sui generis* propositions (or states of affairs, etc.) (§IV). I then show why no abstract counterpart theorist can rely on such propositions (or states of affairs, etc.) (§VI).

Heller begins to explain his view by relating an account of worlds sketched by Quine.¹⁰ According to that account, a world is a set of ordered pairs. The first member of each ordered pair is an ordered quadruple representing a particular point in the “space-time manifold.” The

second is either a 1—representing that point as filled—or a 0—representing that point as empty. In order to allow for properties not supervenient on distributions of *being filled* or *being empty*, Heller modifies the Quinean account. Heller has the second member of each ordered pair be a set that represents a property; a different set represents each property that can be exemplified at a point in spacetime.¹¹

So given Heller’s theory, the following is a possible world:

SET S: {<<13, 69, 1560, 2>, {3, 48}>, <<589, 4, 37, 38>, {7, 19}>, <<77, 82, 99999, 311>, {3}>...}

Heller’s worlds “represent” things as being a certain way.¹² Moreover, Heller explicitly endorses analyzing modal claims in terms of what his possible worlds represent.¹³ For example, I am possibly forty feet tall is analyzed by Heller as my being represented as being forty feet tall in some of his possible worlds. Thus we find in Heller an attempt at giving analyses of modal properties.

Those analyses are *counterpart-theoretic*. A world represents me as being forty feet tall in virtue of its having among its members a series of quadruples which thus represent me; that series is my “counterpart” in that world. (Moreover, its counterparts need not be my counterparts; thus we get the intransitivity of “transworld identity” that is a hallmark of counterpart theory.) Some may find this a strained notion of ‘counterpart’. But, of course, any *abstract* counterpart theorist must invoke this or some equally “strained” notion.¹⁴ And this is no problem. As already noted, in these debates ‘counterpart’ is a title of art; whatever plays the appropriate role in the analysis merits that title.

Heller’s worlds are sets. We might wonder how a set like the one gestured at above manages to represent a possibility. Heller’s answer is that sets represent only because we use

them to do so. Moreover, which sets represent which possibilities depends on how the sets are interpreted. Indeed, Heller goes so far as to say “if no one had ever interpreted sets as possible worlds, then sets would not have represented alternative possibilities.”¹⁵

Heller *should* say these things. Reconsider the view Quine originally sketched. There it is a matter of decision—not prior objective fact—that 1 represents a point as filled and 0 a point as empty. The number 1 could just as easily have represented being empty, 0 being filled. Likewise, given Heller’s account of worlds, it is a matter of interpretation whether {3, 48} represents (for example) negative charge rather than some other property. And whether a series of quadruples (in a given world) is my counterpart representing me as tall, rather than yours representing you as short, is likewise a matter of interpretation.

Objection 1:

Heller claims that being possibly forty feet tall is analyzed in terms of set-theoretic representations. And he claims that which sets represent which possibilities depends on our interpretations. Together, these claims imply an unacceptable conclusion. They imply that the nature of my being possibly forty feet tall is, among other things, a function of how we interpret sets. After all, given one interpretation of sets, my being possibly forty feet tall will be analyzed as (my existing and) the existence of set S above. Given another interpretation, my being possibly forty feet tall will be analyzed as the existence of a distinct set T, differing from S by (for example) replacing every occurrence of 3 with a 7, and every occurrence of 7 with a 3.

The point here, obviously, has nothing to do with my being possibly forty feet tall in particular. If Heller is right, the nature of every modal property depends on something that we

do. So I conclude that Heller is not right. For it is surely false that, for example, what it is for the sun to be possibly just a hair smaller is, even in part, a result of anything we do. This is my first objection to Heller.

Objection 2:

Set aside my first objection. So grant Heller that, as a result of our interpretations, an object's having a modal property is analyzed in terms of the existence of such and such a set-theoretic entity. This implies—since our interpretations could have differed—that the analyses that hold as a result of those interpretations could have differed. And this in turn implies that the analysis of each modal property is itself a contingent matter. But the analysis of any property is a matter of necessity. That Heller's view implies otherwise is my second objection.

This objection is not troubled by the obvious fact that what we mean by the English expression 'is possibly forty feet tall' is contingent. There is no question that that expression could have meant that a certain set S exists, or instead that set T exists, or instead that chickens exist. Nevertheless, it is in fact true that 'is possibly forty feet tall' means exemplifies the property of *being possibly forty feet tall*. The counterpart theorist's task is to analyze properties like *being possibly forty feet tall*. And, to repeat, the true analysis is a matter of necessity.

Objection 3:

My third objection begins by considering an objection Heller addresses in his paper:

In a world with no interpreters, the sets that actually are possible worlds go uninterpreted...since no worlds exist in worlds without interpreters, nothing is possible (or necessary) in those worlds. So if there had been no interpreters, there would have been no modal truths.¹⁶

Heller takes this objection seriously. (This alone shows that Heller is promoting an analysis of modality; for this objection would be a howler if interpreted sets were supposed to be anything else.) His reply is that, once interpreted, sets are indeed possible worlds; and so, once interpreted, we can say truly that wherever those sets exist—even in worlds without interpreters—there are alternate possibilities.¹⁷ Suppose we grant Heller his reply. Suppose that once the interpreting is actually done, we have all the modality we want or need, even in worlds without interpretation.

I think that the interpreting has not all been done; and so I think that—given Heller’s view—we lack the modality we need. To begin to see why I say this, note that it was not true a thousand years ago that humans interpreted sets to represent the possibility of molecules’ being composed of atoms. For humans then were not able even to entertain this possibility. But we are, surely, in a situation akin to that of our forbears. For there are, surely, possibilities we cannot entertain. And so, as a result, we have not interpreted sets to represent those possibilities. Similarly, we have not interpreted sets to represent every possibility involving possible properties and individuals that do not and did not and will not actually exist (the “alien” properties and individuals). So we have not—and will not and cannot—interpret sets to represent *all* the possibilities that we know there are.¹⁸ So Heller’s view—which implies that the extant possibilities cannot outstrip the interpreted sets—is wrong. This is my third objection to Heller.¹⁹

As an aside, I note that the above three objections threaten more than just abstract counterpart theory. They are objections to any view that endorses both of the following claims. First, *de re* (or even *de dicto*) modality is reduced to what abstract structures represent. Second, abstract structures represent in virtue of what we do. Even a non-counterpart theorist who wants to reduce modal properties to set-theoretic constructions is threatened by the above objections. Relatedly, the above objections—along with the one to follow—show that propositions are not sets, at least not sets relevantly like those Heller invokes. (For example, propositions stand in certain interrelations, such as entailment, essentially. Suppose set S is a proposition that entails set T because of what each set represents. And suppose each set represents what it does in virtue of what we contingently do. Then S entails T contingently. Absurd.)

Objection 4:

The above objections turn on the role Heller places on interpretation. Some might object that this picks on the worst part of his view. They might say a better way to take Heller—or perhaps a better version of a Heller-like counterpart theory—allows the worlds to represent “objectively” rather than as a result of our interpreting. Or, alternatively, they might say that we should consider a Heller-style approach that leaves representation out of the picture altogether.

Let us begin with this second suggestion. Defenders of this suggestion might say, for example, that my being possibly forty feet tall is analyzed as the existence of set S. But, they add, this has nothing to do with what S represents. They might even add that just as water’s being H₂O has nothing to do with what H₂O represents, so my being possibly forty feet tall’s

being set S has nothing to do with what S represents. The identity or analysis or reduction in one case, just as in the other, is simply a straightforward metaphysical fact.

Taxation without representation is bad. Reduction without representation is worse, at least when it is the reduction of *de re* modal properties to abstract structures. For such alleged reductions are wholly unmotivated. It is S's supposedly representing me as forty feet tall that motivates an account of my being possibly forty feet tall in terms of S. (Similarly, S qualifies as a possible world only because of what it represents, only because it is a maximal and consistent representation.) Of course, one can simply announce that my being possibly forty feet tall just is the existence of S apart from what—if anything—S represents. But this is like the bald assertion that my being possibly forty feet tall just is my being on the same planet as a yawning cat, or (instead) my being less than ten light years from the moon, or my being such that three is prime.

Even if we want to adjust Heller's theory so that it avoids the first three objections, we should not abandon representation. The other option, then, is to insist that the sets in question do represent, but not in virtue of anything we do. I am not sure how sets (of ordered pairs of ordered quadruples and sets of numbers) are supposed to represent thus "objectively." It is odd to think that a set of ordered pairs represents me as being forty feet tall and the sun as being a hair smaller and so on in and of itself, intrinsically and objectively, not on the basis of any sort of interpretation. It is strange to say that sets could—in and of themselves—pull this off. The suggestion seems to be that these sets are a language, but not by convention.

The oddness of such a view aside, we might wonder *how* these sets represent. One reply is that they just do, end of story. Aficionados of ersatz possibilia will see that this reply is like what Lewis calls "magical ersatzism."²⁰ Presumably, if counterpart theory is built on a foundation of primitive or brute representation, it will be built on something like *sui generis*

propositions (or states of affairs, etc.) rather than on sets like S. So “magical” representation does not so much suggest a way of modifying Heller as it does an entirely different approach. And I shall address that approach below (§VI). (But, for the record, what I say about *sui generis* propositions easily applies to the claim that Heller’s sets magically represent.)

Perhaps the defender of a Heller-style theory will insist that sets like S represent objectively, but deny that they do so in the primitive way credited to *sui generis* propositions. The only likely suggestion here is that sets like Heller’s represent various possibilities in virtue of their “structure.” And so, along these lines, Theodore Sider says: “Modal concepts lay down a structural requirement: our talk of possible worlds and the rest is about any structure that is suited to play the relevant roles.”²¹ So let us consider whether we can get objective representation from sets like S via their “structure.”²²

One objection to this idea begins by considering Paul Benacerraf’s famous argument against identifying numbers with sets. A set’s being (for example) the number three would be the result of some feature of that set.²³ But there is no relevant feature that one of the sets competing to be three has and all the others lack, no difference of the sort necessary to make one set (but none of its competitors) the number three. So either none of the competitors is three, or more than one of them is. But it is false that more than one of them is. (By the transitivity of identity, if any set is (identical with) the number three, no set not identical with it is also (identical with) the number three.) So no set is the number three. Parts of Benacerraf’s paper are quite controversial; but its least controversial conclusion is that there is no set S such that it is the number three.²⁴

A similar sort of argument has been made against set-theoretic reductions of ordered pairs. Peter Forrest considers Kuratowski’s construction

...whereby $\langle a,b \rangle$ is identified with $\{a,\{a,b\}\}$. But, as is well known, Kuratowski's identification suffers from a grave defect if it is treated as anything more than a model-theoretic device. For it is a convention, not a discovery, that $\langle a,b \rangle$ is to be identified with $\{a,\{a,b\}\}$ rather than, say, $\{\{a,\emptyset\},\{a,b\}\}$, and serious ontology is not done by convention.²⁵

The same point is made by D. M. Armstrong, who concludes of identifying ordered pairs with unordered sets of sets: "...as a piece of serious metaphysics, this seems quite unacceptable."²⁶

With all this in mind, turn to the Heller-inspired theory according to which sets represent possibilities "objectively," by way of their structure. It cannot be that my being possibly forty feet tall *just is* or *is analyzed as* my being thus represented by set S and also that it is false—because it is analyzed in some other way—that my being possibly taller *just is* or *is analyzed as* my being thus represented. So, given the view here about the analysis of modal properties, there is a privileged set-theoretic way to represent my being possibly taller. But—certainly—there is not.

The objection here is not that this view implies that more than one series of quadruples will qualify as my forty-foot-tall counterpart. This implication is unproblematic; counterpart theory happily insists that I have many counterparts in multiple worlds, many of whom make me possibly forty feet tall. Rather, the objection here is that this approach absurdly implies that no single analysis of a modal property is better than some incompatible analyses.

To see this point more clearly, return to the idea that a world is a set of ordered pairs, the first member of which is an ordered quadruple locating a point, the second of which represents that point as filled or as empty. One way of doing things has 1 representing a point as filled and 0 as empty; another approach has it the other way around. Obviously, these approaches are

inconsistent with each other: one approach uses 1 to represent being empty, the other uses it to represent being filled. So if the representations here are the true analyses of possibly being filled and possibly being empty, one or the other (or some third approach along these lines) will have to be objectively “privileged.” But none is. There will always be equally good but incompatible set-theoretic ways to represent various possibilities, just as there are equally good but incompatible set-theoretic candidates for being the number three or for being the ordered pair $\langle a,b \rangle$.

Some will object that Benacerraf’s worry about identifying numbers with sets, and the worry Forrest and Armstrong have about identifying ordered pairs with unordered sets, are really no worries at all. Rather, some will say, it is simply *indeterminate* which of the competing sets is identical with the number three and which unordered set of sets is $\langle a,b \rangle$. (There are a variety of ways this sort of reply could go, each invoking a different notion of indeterminacy.²⁷)

I do not find this reply very plausible. I think it fails to block Benacerraf’s objection, and fails to block Armstrong’s and Forrest’s objection. But my aim here is not to defend Benacerraf or Armstrong or Forrest. And I do not need to. For whatever one thinks of the indeterminacy reply with respect to, say, reducing ordered pairs to unordered sets, one should find it absolutely unacceptable as a way of saving the “objective” version of Heller’s abstract counterpart theory.

To begin to see why I say this, consider the following. Faced with, for example, two intuitively similar reductions of ordered pairs to unordered sets, perhaps we could plausibly play the indeterminacy card. But playing that card would not be remotely plausible if faced with the idea that each ordered pair is identified with any and every set that meets or exceeds a certain threshold of structural complexity. And, of course, things get worse if the view in question implied that each ordered pair is also a cat and is a tree and is in fact each and every thing with a

sufficiently complex “structure.” The moral here would not be that it is indeterminate which of *every complex entity* is identical with $\langle a,b \rangle$. The moral, obviously enough, would be that it was a mistake to try to reduce that ordered pair to whatever has a sufficiently complex structure.

This is pretty much the place we find ourselves if we say that abstract worlds and their counterparts are sets that represent possibilities in virtue of their “structure,” rather than in virtue of how they are interpreted. For although I have gone along with the general framework Heller suggests, there is no reason to think that abstract worlds must really be sets of ordered pairs rather than, say, sets of ordered triples, or quadruples, or...whatever. Indeed, there is no reason—given only the vague notion that “structure” accounts for the relevant sort of representation—to exclude the idea that my being possibly forty feet tall just is the existence of a yawning cat. Yawning cats do, after all, have “structure.”

Whatever one makes of the Benacerraf-style objection in other contexts, it seems to me that it is decisive against the Heller-style theory according to which sets represent possibilities only in virtue of their “structure.” At the very least, that objection cannot be plausibly blocked by invoking indeterminacy.

And the ubiquity of structure is not even the most fundamental problem here. For suppose, just for the sake of argument, we could somehow block the Benacerraf-style objection. The view under discussion here still says that *sets of ordered pairs (of quadruples of numbers and sets of numbers) represent possibilities essentially and intrinsically, in and of themselves, not by way of interpretation*. While there is probably intrinsic representation out there—for example, some mental states are plausibly intrinsically “about” something else and perhaps there are *sui generis* propositions—a set of ordered pairs (of quadruples of numbers and sets of numbers) seems an unlikely place to find it. No one has adequately explained how such sets, in

virtue of their “structure,” really manage to represent possibilities. Indeed, it seems as if they simply could not do this. No matter what a set’s structure, it seems that—if we set aside all interpretation—the set would represent nothing. A set just sits there. After all, in the absence of being appropriately interpreted, the number 1 does not represent *being filled*. And presumably this is true of 1 no matter how the sets are structured that include 1 in their transitive closure.

For bookkeeping purposes, I shall count all of the above worries about objective set-theoretic counterparts as a fourth objection to Heller. For their point is that we cannot save Heller’s set-theoretic counterparts by scaling back the role of interpretation.

Objection 5:

My fifth and final objection to Heller begins by noting that everyone—including every counterpart theorist—should agree that my possibly being forty feet tall is not analyzed in terms of my being on the same planet as a yawning cat. And talking funny does not help this analysis; it does not help to call the cat ‘my counterpart’ and its yawning ‘the counterpart of my being forty feet tall’. It is obvious that my being possibly forty feet tall is one thing, a cat’s yawning another.

The classic objection insists that Humphrey’s possibly winning is one thing, an otherworldly twin of his pulling off an upset another. Nevertheless, the defender of “yawning cat” counterpart theory is mistaken if he responds: “I am no worse off than every other counterpart theorist; those who reject my view because it seems (to them) obviously false are just replaying the classic objection.” Yawning cat counterpart theory is obviously wrong and we should come right out and say it.

It is obviously wrong. But it is hard to say anything uncontroversial about *why* it is wrong. That is because to do so would be to note some *desideratum* of an analysis that the yawning cat account fails to satisfy. But, of course, any such *desideratum* is likely to be controversial. And, more to the point, any substantive “standard for a successful analysis” will be more controversial than the obvious falsity of the claim that my being possibly forty feet tall *just is* my being on the same planet as a yawning cat.

I think Heller is in yawning cat territory. Once we see that counterpart theory is supposed to give us *analyses* of modal properties then we should also see how implausible Heller-style analyses are. Even if we set aside the first four objections, it would still not be plausible that my being possibly forty feet tall *just is* (my existing and) the existence of some set of the sort Heller invokes. Again, my being possibly forty feet tall is not the same thing as there being a particular set of ordered pairs of ordered quadruples of numbers and sets of numbers.

IV. OTHER ABSTRACT COUNTERPART THEORIES

David Lewis presents, but of course does not endorse, a version of abstract counterpart theory. (In fact, Heller says his own view is an improved version of the theory Lewis presents.) In sketching a view according to which abstract possible worlds are sets of sentences, Lewis says:

...it is not necessary that the worldmaking language should itself be anything like a natural language, or that there should be any way to speak or write its sentences, or that its vocabulary should be finite, or that its sentences should be finite in length. All we need is language in a generalised sense: a system of structures that can be parsed and

interpreted. The words can be anything that safe and sane ontology has to offer. They can be individuals that are part of the concrete world, or set-theoretic constructions out of those, or pure sets, or anything else we believe in. It does not matter what they are, if they get their role in representing by arbitrary stipulation. So we could have an infinite number of words: let all the real numbers serve as words, or all the points or regions of spacetime, and stipulate in some wholesale way what they are to mean.²⁸

Here is what Lewis says when—inspired by Swift—he considers a “Lagadonian” language in which each thing names itself:

A language that is interpreted in the Lagadonian way is, nevertheless, interpreted. The ersatz who presents his worldmaking language must still stipulate how it is interpreted, even if what he stipulates is that it has a Lagadonian interpretation. That is not, of course, the only interpretation the language could bear. It is just an especially easy one to specify. A real number could serve as a name for itself, but could equally well serve as a name for itself plus seventeen. I could be my own name, but alternatively I could be yours; or I could be put to some other use in a language, say as a punctuation mark.²⁹

And here is what Lewis says about our counterparts:

Just as we take linguistic ersatz worlds as complete descriptions of an entire world, so we should take our linguistic ersatz possible individuals as complete descriptions of parts of the world. We can take them as maximal consistent sets of open sentences of the worldmaking language, with a free pronoun or variable; or, equivalently, as maximal consistent sets of complex predicates. Just as a set of sentences is consistent if they might all be true, so a set of open sentences is consistent if they might all be true *of*

something, taken as a value of the common pronoun or variable; and a set of predicates is consistent if something might fall under all of them...³⁰

Lewis says that the sort of abstract counterpart theory sketched in the quotes above is the “best ersatzism by far” and that he has no “knockdown refutation” of it.³¹ Rather, he notes one or another way in which this theory is more costly or less thorough than his own modal realistic theory. But we should be harsher here than Lewis was. For it should be clear, holding the quotes above up to the light of the earlier arguments against Heller, that the sort of counterpart theory here on offer is absolutely hopeless (hopeless if taken as providing the true analyses of modal properties). But risking redundancy, I shall make a few comments.

Something is an open sentence, or a complex predicate, because of something we do, because of an interpretation. We play a role in deciding which things are sentences and predicates, and which sentences and predicates those things are. And so, like Heller, the abstract counterpart theorist who analyzes modal properties in terms of sets of open sentences or predicates must say that how we interpret influences the very nature of those analyses. Given one way of interpreting, the analysis of a modal property is partially in terms of one set; given another, the analysis does not involve that set at all.

And, like Heller’s, the view sketched by Lewis implies that the analysis of modal properties is contingent, since that analysis turns on contingent facts about what—to use Lewis’s word—we “stipulate.”

And, also like Heller’s, it implies that each and every modal property hangs in limbo—does not even exist—absent the relevant stipulations or interpretations. But, presumably, there are some modal properties that have yet to be accounted for in a properly interpreted world. Given Lewis’s version of abstract counterpart theory, those modal properties do not exist. But—

as just noted—presumably there *are* such properties. Hence that sort of counterpart theory is wrong.

Multiple “languages” will be equally well suited to the task of being the one out of which the sets are constructed that, in turn, issue in the analyses of modal properties. As a result, multiple but incompatible such analyses of each modal property will be equally good. And so we have a Benacerraf-style objection to abstract counterpart theory of the sort sketched by Lewis, if we should try to avoid the first three objections by downplaying the role of interpretation in that theory.

And, more importantly, if we deny interpretation a role here, it is hard to see how we have anything at all like a language out of which to construct the relevant sets. It is hard to see how we could have *any* good analyses, much less—as the Benacerraf objection requires—too many. Avoiding the first three objections by asserting that sets represent objectively is swallowing a frog to get the fly. (The fifth objection—the claim that my being possibly forty feet tall is not the same thing as there being a set or other abstract object—cannot be avoided at all.)

Perhaps someone will reply that the Lagadonian interpretation (or something like it) *is* privileged. This might be the reply, for example, of someone who thinks a singular proposition has its subject as a “constituent.”³² There are a variety of ways this might go. Such a view might claim, for example, that the proposition that Merricks is forty feet tall just is the ordered pair $\langle \text{Merricks}, \textit{being forty feet tall} \rangle$. Now I do not think this ordered pair represents anything at all. It just sits there. And if it did, all by itself, manage to represent something, I do not see why it would represent my being forty feet tall rather than, for example, my not being forty feet tall. Indeed, I do not even see why, when a member of such a pair, I am more fit to represent myself than, say, the number seventeen. So I do not think the Lagadonian approach helps.

But I am willing to concede, for the sake of argument, that *if* one were to defend objective representation by sets, the least implausible version would be broadly Lagadonian. Even if this approach could be made to work, however, it would be of no help to abstract counterpart theory. For, according to this approach, an object represents itself in worlds according to which it exists; it is somehow a constituent of every world that represents it; it is, so to speak, its own counterpart in various worlds. Given this view, the “counterpart relation” is numerical identity. But the counterpart relation is not identity. So this view is not a version of counterpart theory at all. Indeed, because this view says that each object represents itself in various worlds, its closest cousin is the paradigm of anti-counterpart theory: modal realism with overlap.³³

(Or look at it this way. A reduction of modal properties to abstract worlds is counterpart-theoretic if and only if (or perhaps to the extent that) it delivers the relevant theoretical payoff: sortal-relative counterpart relations, intransitive “transworld identity,” and some sense to the idea of contingent identity.³⁴ So-called Lagadonian counterpart theory delivers none of this because its “counterpart relation”—numerical identity—is not sortal-relative, is transitive, and is in no way contingent.)

My objections to Heller’s abstract counterpart theory are objections to abstract counterpart theory as sketched by Lewis. Moreover, I think those objections are—or can easily be transformed into—objections to any abstract counterpart theory. For our “counterparts,” if they are abstract, represent us only in virtue of being thus interpreted or in virtue of what we stipulate. (Thus the first three objections to Heller can be turned against any abstract counterpart theory.) Relatedly, an interpretation or stipulation is required because abstract structures do not seem suited to represent all on their own. And if some were thus suited—say in virtue of their

“structure”—others would be as well, and would be so in such a way as to yield mutually inconsistent analyses of modal properties. (Thus the fourth objection.) Finally, any kind of abstract counterpart theory will force us to identify the having of a modal property by an object with the existence of (that object and) an abstractum. (Thus the fifth.)³⁵

Rather than reject abstract counterpart theory in light of these objections, the devoted counterpart theorist may take them as a recipe for a defensible counterpart theory. That is, she may say that abstract counterpart theory is true, but then add that it lacks all the features the above objections trade on. So suppose she says the following. Abstract counterpart theory is true. But there is a single correct abstract analysis for each modal property, an analysis that involves abstracta having their representational features essentially and independent of any interpreting or stipulating on our part. (She thereby hopes to block my first three objections to abstract counterpart theory.) And to sidestep all the worries contained in my fourth objection, she denies that worlds are sets and she denies that worlds represent possibilities in virtue of their “structure.” Rather, she insists, a world represents various possibilities just because it does; and other abstracta fail to represent those same possibilities just because they do. Worlds, she says, are *sui generis* propositions (or states of affairs, etc.).

This reply is the last hope for abstract counterpart theory, the only way to avoid the above four objections. (The abstract counterpart theorist cannot possibly avoid the fifth, although she can question its force.) Those who find *sui generis* propositions unacceptable—either because of Lewis’s criticisms of “magical ersatzism” or for other reasons—will likewise refuse to accept the above reply.³⁶ And so some will think this response fails to save counterpart theory simply because what it says about representation is not credible.

But I do not want to leave it at that. This is because, as Peter van Inwagen has argued, we may be able to resist Lewis's attack on magical ersatzism.³⁷ And, Lewis's attack notwithstanding, *sui generis* propositions are a familiar tool in philosophy, one that I do not want to reject out of hand. Nevertheless, I shall argue, such propositions (or states of affairs or other "magical" representers) do not provide a response to my objections that the counterpart theorist can endorse. For even though some other believers in abstract possible worlds may embrace magical ersatzism, I shall argue that the counterpart theorist in particular cannot. But I cannot develop that argument until I explore some of what separates abstract counterpart theorists from other believers in abstract worlds. This is the project of the next two sections.

V. ABSTRACT WORLDS WITHOUT ANALYSIS

My arguments against abstract counterpart theory do not show that Lewis's theory is false. For, given his modal realism, counterpart relations hold and are what constitute modal properties independent of any interpretations on our part. After all, on Lewis's view my counterparts are similar to me in the most objective and straightforward way possible; they likewise straightforwardly have the properties I possibly have.³⁸

Indeed, one might suspect that only Lewis's theory is safe from the above arguments. One might suspect that those arguments trouble any non-Lewisian approach to *de re* modality—or at least any approach invoking abstract possible worlds. For example, just so long as modal properties are analyzed in terms of interpreted abstract structures (whether the analysis is counterpart-theoretic or otherwise) we face analogues of my first three objections to Heller's theory.

Moreover—setting aside *sui generis* propositions for the moment—the fourth objection raises problems for abstract worlds generally, counterpart-theoretic or otherwise, that try to avoid the first three objections by abandoning interpretation. For worlds seem unable to represent anything at all without interpretation lending a hand. Without our interpreting, it is hard to see how anything could be true *according to* a world. And if worlds did manage to represent on their own—we can play along by saying they do so in terms of their “structure”—they would run afoul of the Benacerraf-style objection.

And consider this objection. Believers in abstract possible worlds think that I am possibly forty feet tall just in case, in some abstract world, I am forty feet tall. But my being possibly forty feet tall is *not* the same thing as there being some abstract world—some set or some other abstractum—according to which I have that property. Recalling my final objection to abstract counterpart theory: It is not plausible that my being possibly forty feet tall *just is* the existence of an abstract whatnot.

The objections just raised presuppose that the non-counterpart theorist tries to *analyze* modal properties (or possibility and necessity) in terms of abstract possible worlds. And if that presupposition were correct, I think the objections would be decisive. But it is not correct. For the non-counterpart theorist does not try to analyze modal properties, at least not typically.³⁹ To illustrate this, consider a typical approach (along the lines of Plantinga’s *The Nature of Necessity*). Start with my being possibly forty feet tall. Since I have this property, at least some abstracta according to which I am forty feet tall are possible. At least some of those abstracta are “maximal”; that is, at least some of them either include or preclude every other way things could be. Call the maximal ones ‘possible worlds’. Conclusion: there is a possible world in which I am forty feet tall.

The above reasoning is controversial. Some will deny the existence of representing abstracta. Others will believe in such abstracta, but deny that any are “maximal.” And yet others will accept the existence of maximal representing abstracta, but will object to calling them ‘possible worlds’. Happily, we can ignore these and similar controversies. For the point here is not that the view just outlined is true and felicitous. Rather, the point here is that that view—true or not—has nothing to do with analyzing modal properties.

Nor do other typical non-counterpart-theoretic accounts of abstract possible worlds. As noted, the above objections to non-counterpart-theoretic abstract possible worlds assume, falsely, that such worlds are in the business of analyzing modality. Those objections succeed only given the false assumption. And so standard non-counterpart-theoretic accounts of abstract possible worlds are immune to my objections to abstract counterpart theory.

Let me stay just a bit more to justify this last claim. As already noted, the standard sort of non-counterpart theory *starts* with modal properties. It then analyzes worlds in terms of them. Therefore only the confused will object that there being a possible world in which I am forty feet tall is irrelevant to my being possibly forty feet tall. Moreover, no matter how one might develop this position with respect to the role of interpretation, the Benacerraf-style worry about there being too many “abstract world” analyses of what it is for me to be possibly forty feet tall never gets going. For there are not too many analyses. There is not even one! Analysis of modal properties is not the topic here. So there is no worry that the nature of modal properties—or the modal status of their nature or the existence of the properties themselves—is held hostage to, or somehow compromised by, our interpreting. Even if our interpretations play a role in what abstract worlds represent, such interpretation would not bear on the analysis or nature of modal properties.

Abstract counterpart theory, if a true theory about modality, must offer counterpart-theoretic analyses of modal properties. But, I have argued, all abstract world analyses fail, including of course the counterpart-theoretic ones. So—if those arguments are correct—abstract counterpart theory is not true. My arguments against that theory do not threaten David Lewis’s non-abstract counterpart theory; nor do they trouble the typical non-counterpart theorist who believes in abstract possible worlds.

VI. *SUI GENERIS* PROPOSITIONS AND THE ANALYSIS OF MODAL PROPERTIES

As noted, the typical non-counterpart theorist does not try to analyze modal properties in terms of abstract worlds. Thus she is immune to my arguments against abstract counterpart theory. But, I said, if she tried to analyze modal properties in terms of abstract possible worlds, she would not be immune. And so I argued that all analyses of modal properties in terms of abstract worlds fail.

In arguing against all such analyses or reductions, I set aside the idea that abstract worlds were *sui generis* propositions (or states of affairs or the worlds of magical ersatzism). I now want to ask whether that idea offers a way of salvaging possible worlds analyses of modal properties in general and the counterpart-theoretic species of such analyses in particular.

Let us begin by imagining two philosophers who agree that possible worlds are maximal and possibly true *sui generis* propositions. And they agree that a person “exists in a possible world” if and only if the world represents the person as existing (and having various other properties). But they disagree about something. One reduces modal properties to representation by worlds, the other not.

Given the extent to which our two philosophers agree, one might suspect that their disagreement comes to nothing. But consider how each would understand the claim that I am forty feet tall in possible world β . The non-reductionist would understand this as meaning: If β were true, then I would be forty feet tall. In contrast, the reductionist (and so the analytic counterpart theorist) understands this to mean: β represents me as being forty feet tall.⁴⁰

With this in mind, consider *sui generis* propositions. Given these propositions—given magical ersatzism—there is no explanation of how representation *works*. But the magician who does not reduce modal properties to representations can help us understand something of what representation *is*. She can say that what it is for me to be represented in a world as being forty feet tall is the following: If things were as that world represents them, then I would be forty feet tall. More generally, what it is for any object *O* to be represented in a world as having any property *F* is the following: If things were as that world represents them, *O* would be *F*.

The reductionist cannot explain representation by worlds in this way. For, as we have already seen, she reduces *if things were as a world represents them, O would be F* to *a world represents O as being F*. Given reductionism, the latter cannot be explained in terms of the former; it is rather the other way around. So when we ask someone who reduces modal properties to abstracta to explain what it is for a world to represent *O* as being *F*, she must—if she believes a world is a *sui generis* proposition—say nothing. On her view, representation by a world is completely mysterious.

Freed of reductive ambitions, the magical ersatzist can explain representation by a possible world in terms of how things would be, were they as they are represented. Freed of magical ersatzism, one who reduces modal properties to representation by abstract worlds can explain that representation in terms of interpretation and language. But the combination of

magical ersatzism and the reduction of modal properties to what is represented by worlds is fatal. For it renders representation by a world—and hence modal properties reduced to such representation—unintelligible.

The argument just given takes aim at any attempt to reduce *de re* modality to abstract representations. So the point of the above argument is that anyone who wishes to reduce *de re* modality to representation by abstract worlds cannot rely on magical ersatzism. And of course this implies that the abstract counterpart theorist cannot rely on magical ersatzism. As we have seen from the start of this paper, abstract counterpart theory has analytic ambitions. It aims to analyze (or reduce) modal properties to representations in worlds by counterparts.⁴¹

There is a second problem with the combination of counterpart theory and magical ersatzism, a problem that afflicts the counterpart-theoretic species of reductionism in particular. The magical ersatzist believes in *sui generis* propositions (or states of affairs, etc.). So suppose that we have *sui generis* propositions. And add that an object exemplifying properties P_1 through P_n is “appropriately like me.” The sort of counterpart theory we are here considering would then claim, roughly, that my being possibly forty feet tall is reduced to the *de dicto* possibility of the proposition that there is some object exemplifying properties P_1 through P_n that is forty feet tall. (And this proposition must somehow be part of a “possible world.” For something “appropriately like me” is my counterpart only if it is the thing relevantly most like me in a given world.)

We are supposing that there are *sui generis* propositions. But if so, surely some are singular. If there is the proposition that there is some object exemplifying P_1 through P_n that is forty feet tall, presumably there is also the proposition that Merricks is forty feet tall. Now ask

yourself which of the following is the more natural or obvious or intuitive or plausible *de dicto* reduction of my being possibly forty feet tall:

(i) Possibly, Merricks is forty feet tall.

(ii) Possibly, some object exemplifying P_1 through P_n [i.e., some object appropriately like Merricks] is forty feet tall.

Clearly, (i) is.

This does not beg any questions against abstract counterpart theory. The goal, we are imagining, is to reduce or analyze each *de re* modal property in terms of a *de dicto* modality. We accomplish this by analyzing my being possibly forty feet tall in terms of either (i) or (ii). The question then—at this stage in the dialectic—is, given (i) and (ii), which better captures the idea that I am possibly forty feet tall. The answer is obviously (i); no *de dicto* modality could ever do better.

But the counterpart theorist cannot reduce the claim that I am possibly forty feet tall to the *de dicto* possibility of the proposition that Merricks is forty feet tall. She cannot do this because, obviously enough, the resulting account of *de re* modality is not counterpart-theoretic. For example, this account, like the view that each object represents itself in the worlds in which it exists (see §IV), fails to deliver the theoretical flexibility of counterpart theory.

(An additional small point in favor of the non-counterpart-theoretic approach to reducing the *de re* to the *de dicto* is that it is the more economical. As already noted, counterpart theory requires worlds. But the non-counterpart theorist needs only singular propositions, like that in (i) above.)

Abstract counterpart theory must embrace magical ersatzism to avoid the first four objections developed earlier in the paper, objections presented in their original form against

Heller's theory. (The fifth objection is unavoidable.) But magical ersatzism's *sui generis* propositions undermine abstract counterpart theory. They do so, as argued above, for two reasons. First, any abstract *de re* modal reductionism (which includes all versions of abstract counterpart theory) renders the relevant notion of representation unintelligible. Second, if we allow *sui generis* propositions, we should allow singular *sui generis* propositions. But the latter provide a non-counterpart-theoretic *de dicto* reduction of each *de re* modal property, a reduction which trumps that suggested by the counterpart theorist.

As we have just seen, the counterpart theorist cannot embrace magical ersatzism. But, as we saw earlier (§IV), only magical ersatzism offers a hope of blocking (four of) the objections to abstract counterpart theory, objections to any possible abstract counterpart-theoretic analysis of a modal property. So those four objections cannot be blocked. Neither can the fifth. I conclude that abstract counterpart theory is false.

VII. MERELY HEURISTIC COUNTERPART THEORY

I simply assume that Lewis's ontology of multiple universes is not true. So I conclude that his counterpart theory fails. And, I have argued, abstract, non-Lewisian, counterpart theories also fail. So counterpart theory of every variety fails. That is, counterpart theory does not give us the true account of the nature of *de re* modal properties.⁴²

But perhaps some self-styled counterpart theorists offer no such account. Perhaps they employ "counterpart theory" not to reveal the metaphysics of modality, but rather as a heuristic to help us imagine, or to help them present, possibilities in a supposedly illuminating way. I suppose, for example, that most philosophers who use possible worlds as a mere heuristic have

in mind worlds of Lewis's sort; they will almost inevitably end up with merely heuristic counterpart theory.⁴³

Counterpart theory, if the true theory of modality, delivers novel modal results. These results—and the ways in which they solve certain puzzles—make counterpart theory attractive to some.⁴⁴ But the very features that make counterpart theory attractive as a theory of the nature of modality make it a dismal heuristic.

Here is one example. I can easily picture a “world in which I have two (personal) counterparts.” This picture suggests that there is some sense to be made of the claim that there is a possible world in which I am two people, and so some sense to be made of the claim that, possibly, I am two people. But this suggestion is totally misleading. For—if analytic counterpart theory is false—to say that there is a world in I am two people is to say that there is a way things could be such that, if things were that way, I myself would be two people. But if two people were identical with me, each would be identical with one person: me. Absurd.⁴⁵

A similar point could be made about heuristic counterpart theory's suggesting that “transworld identity” is intransitive. Or about its suggesting that “transworld identity” and (as a result) modal properties are sortal-relative. The moral in all these cases is the same. Heuristic counterpart theory suggests that we think of modality as if counterpart theory were true. But it is not true. And so we have no right to think of modality in that way.

Counterpart theory is not just a less prosaic, more picturesque way of saying what non-counterpart theorists had been saying all along.⁴⁶ And so thinking in terms of counterpart theory is useful if and only if it is an accurate way to think of modal properties; that is, if and only if there are counterpart-theoretic analyses of modal properties. But because analytic counterpart

theory is false—because it does not reveal the true nature of *de re* modality—heuristic counterpart theory is positively misleading.

TRENTON MERRICKS

University of Virginia

* Thanks to Bob Adams, Jim Cargile, Dave Chalmers, Jan Cover, Michael Della Rocca, John Devlin, John Divers, Geoff Goddu, Mark Heller, Harold Langsam, Gene Mills, Mark Murphy, Al Plantinga, Gideon Rosen, Dean Zimmerman and, especially, Mike Bergmann, Mike Rea, and Ted Sider. Versions of this paper were presented at Virginia Commonwealth University, Western Washington University, the University of Virginia, and Metaphysical Mayhem VII. This paper was supported, in part, by a summer grant from the University of Virginia.

¹ This characterization is rough, leaving out, among other things, the sortal-relative nature of counterpart relations.

² Advocates of counterpart theory include Graeme Forbes (“Two Solutions to Chisholm’s Paradox,” *Philosophical Studies* 46 (1984): 171-187), Alan Gibbard (“Contingent Identity,” *Journal of Philosophical Logic* 4 (1975): 187-221), Allen Hazen (“Counterpart-Theoretic Semantics for Modal Logic,” this JOURNAL LXXVI (1979): 319-338), Mark Heller (“Property Counterparts in Ersatz Worlds,” this JOURNAL XCV (1998): 293-316), Theodore Sider (*Four-Dimensionalism: An Ontology of Persistence and Time* (Oxford: Clarendon Press, 2001), pp. 111-113), and Robert Stalnaker (“Counterparts and Identity,” *Midwest Studies in Philosophy* 11 (1986): 121-140).

³ *The Nature of Necessity* (Oxford: Clarendon Press, 1974), p. 116.

⁴ *Naming and Necessity* (Cambridge, MA: Harvard University Press, 1980), p. 45 n. 13.

⁵ Cf. Hazen, “Counterpart-Theoretic Semantics for Modal Logic,” p. 322; David Lewis, *On the Plurality of Worlds* (Oxford: Basil Blackwell, 1986), p. 196; and Sider, *Four-Dimensionalism*, p. 195.

⁶ One might recast (1) as an account of O's being *merely* possibly forty feet tall. This change has some benefits. For example, it allows O's being actually forty feet tall, all by itself, to make O possibly forty feet tall, no counterpart needed. This is not relevant to my arguments, so I shall ignore it in what follows.

⁷ Cf. Sider, "Review of Michael Jubien's *Ontology, Modality, and the Fallacy of Reference*," *Noûs* 33: 284-294 (1999), p. 290.

⁸ See, for example, Hazen, "Counterpart-Theoretic Semantics for Modal Logic," pp. 319-320 and Sider, "Review of Michael Jubien's *Ontology, Modality, and the Fallacy of Reference*," p. 290.

⁹ See "Property Counterparts in Ersatz Worlds."

¹⁰ Quine sketches this account in "Propositional Objects," *Ontological Relativity and Other Essays* (New York: Columbia University Press, 1969).

¹¹ Heller says that these modifications do not take us all the way to a fully worked out account of worlds ("Property Counterparts in Ersatz Worlds," 316). For example, a full account would have a way of representing abstract objects, which do not exemplify properties at points in spacetime.

¹² "Property Counterparts in Ersatz Worlds," p. 307.

¹³ "Property Counterparts in Ersatz Worlds," p. 315.

¹⁴ Cf. Lewis, *On the Plurality of Worlds*, p. 149.

¹⁵ "Property Counterparts in Ersatz Worlds," p. 315.

¹⁶ "Property Counterparts in Ersatz Worlds," p. 314.

¹⁷ "Property Counterparts in Ersatz Worlds," pp. 314-15.

¹⁸ Cf. Lewis, *On the Plurality of Worlds*, p. 156.

¹⁹ Consider the view that O's being possibly F is analyzed as *there being some set or other that is interpreted as representing O as F*. (That set will have to be “maximal” and “possible.”) According to this view—unlike Heller's—our interpretations do not “select” the analysis of any property. Rather, our interpreting is part of the analysis itself, an analysis that is constant no matter how we interpret. This sort of approach is not subject to my second objection. It is subject to a cousin of my first objection. But most importantly, it is devastated by the third. For by building interpreting into the analyses of each modal property, it implies that there are no modal properties in worlds without interpreters.

²⁰ *On the Plurality of Worlds*, pp. 174ff.

²¹ “The Ersatz Pluriverse,” this JOURNAL XCIX (2002): 279-315, p. 310.

²² This view—the view that a world represents by its “structure”—resembles “pictorial” ersatzism, according to which a world represents “by isomorphism” (Lewis, *On the Plurality of Worlds*, pp. 166-7).

²³ “What Numbers Could Not Be,” *Philosophical Review* 74 (1965): 47-73.

²⁴ Benacerraf has many critics, including Crispin Wright (*Frege's Conception of Numbers as Objects* (Aberdeen: Aberdeen University Press, 1983), Jerold Katz (“Skepticism About Numbers and Indeterminacy Arguments” in Adam Morton and Stephen Stich (eds.) *Benacerraf and his Critics* (Oxford: Blackwell Publishers, 1996), Penelope Maddy (“Sets and Numbers,” *Noûs* 15 (1981): 495-511) and Linda Wetzel (“That Numbers Could Be Objects,” *Philosophical Studies* 56 (1989): 273-292). Yet none dispute the points just noted. (A supervaluationist might say that ‘some set is the number three’ is true, claiming it is true on each precisification of ‘three’; but she will not say that there is a set S that is the number three; that is, she will not say that there is a set S such that ‘S is the number three’ is true on all precisifications of ‘three’.)

²⁵ “Neither Magic Nor Mereology: A Reply to Lewis,” *Australasian Journal of Philosophy* 64 (1986): 89-91, pp. 90-91.

²⁶ “In Defence of Structural Universals,” *Australasian Journal of Philosophy* 64 (1986): 85-88, p. 87.

²⁷ Crispin Wright (*Frege’s Conception of Numbers as Object*, pp. 125-7) develops this reply invoking “Quinean indeterminacy.” And, as Hazen notes, so would Gilbert Harman and Quine himself. (See Hazen’s “McGinn’s Reply to Wright’s Reply to Benacerraf,” *Analysis* 45 (1985): 59-61; Harman’s “An Introduction to ‘Translation and Meaning,’ Chapter Two of *Word and Object*” in Donald Davidson and Jaakko Hintikka (eds.) *Words and Objections* (Dordrecht: D. Reidel Publishing Co., 1969); and Quine’s “Replies: to Harman” in *Words and Objections*.)

But Wright is wrong. (So are Harman and Quine.) Marie McGinn raises one objection to Wright, an objection I endorse, in “Wright’s Reply to Benacerraf,” *Analysis* 44 (1984): 69-72. Moreover, suppose that there are more and less natural interpretations of language (cf. Lewis, “New Work for a Theory of Universals,” *Australasian Journal of Philosophy* 61 (1983): 343-377). For example, one might say, it is more natural to interpret ‘gavagai’ as ‘rabbit’ than as ‘undetached rabbit part’ or as any of the other alleged competitors. And so, one might say, ‘gavagai’ means rabbit. But none of the competing set-theoretic entities are “more natural” referents of the expression ‘Merricks’s counterparts’ than are any of the others. So the sort of thing that would abolish Quinean indeterminacy leaves unresolved the conflict among our incompatible but equally good candidates for being my counterparts. So the problem with objective set-theoretic counterparts is not merely an instance of Quinean indeterminacy.

Someone might respond to my Benacerraf-style objection by saying it merely points out an instance of vagueness due to semantic indecision. But—I reply—in cases of that sort of

vagueness, deciding on a single candidate results in added precision. For example, suppose one area with precise borders were designated ‘outback’. Then certain sentences would be determinately true that (according to the believer in semantic indecision) were not so before, such as ‘Ned stepped out of the outback exactly ten seconds ago’.

Now suppose the alleged vagueness due to semantic indecision associated with ‘Merricks’s counterparts’ were precisified away. This would not add the appropriate sort of precision, in part because what makes the candidates “equally good” is their representing exactly the same possibilities. Because selecting one set-theoretic representation of a possibility from among the various “equally good” candidates cannot deliver the appropriate precision, the problem with “objective” set-theoretic counterparts is not due to vagueness of the semantic indecision sort. (Joseph G. Moore defends a similar point while presenting a Benacerraf-style argument against identifying propositions with sets; see “Propositions, Numbers, and the Problem of Arbitrary Identification,” *Synthese* 120 (1999): 229-263.)

²⁸ *On the Plurality of Worlds*, p. 144.

²⁹ *On the Plurality of Worlds*, p. 146.

³⁰ *On the Plurality of Worlds*, p. 149.

³¹ *On the Plurality of Worlds*, p. 165.

³² Cf. Bertrand Russell, “On Denoting,” *Mind* 14 (1905): 479-93.

³³ See Lewis, *On the Plurality of Worlds*, pp. 198-209.

³⁴ Counterpart theory’s bearing on contingent identity and the sortal relativity of *de re* modal properties is widely discussed (see, e.g., Lewis, *On the Plurality of Worlds*, pp. 248-263). Somewhat less familiar is its handling of “Chisholm’s paradox” (see Chisholm, “Identity through Possible Worlds: Some Questions,” *Noûs* 1 (1967): 1-8.). Here I note only that counterpart-

theoretic solutions to that paradox trade on the intransitivity of the counterpart relation (see, e.g., Lewis, *On the Plurality of Worlds*, pp. 243-6 and Forbes, “Two Solutions to Chisholm’s Paradox”).

³⁵ Some might claim that the abstract counterpart theorist is no worse off with respect to the fifth objection than is the Platonist who thinks that *being possibly forty feet tall* is an abstract object. But that claim is mistaken. For the Platonist does not say that my existing along with that abstract object is what it is for me to be possibly forty feet tall. Rather, she says that my *exemplifying* that object is what it is for me to be possibly forty feet tall. We might wonder what exemplification is and whether the Platonist’s story is plausible; but that is a different topic.

³⁶ For Lewis’s criticisms, see *On the Plurality of Worlds*, pp. 174-191.

³⁷ See Peter van Inwagen, “Two Concepts of Possible Worlds,” *Midwest Studies in Philosophy*, 11 (1986): 185-213. Objecting to Lewis’s pejorative label, van Inwagen renames the position ‘Unsound Abstractionism’, ‘Unsound’ being an acronym for Unscientific Naive Superstitious Obscurantist Unenlightened Neanderthal Dogmatic.

³⁸ Lewis does say that modal *predicates* are context relative. But, for Lewis, it is wholly objective whether an object stands in the various relations that constitute sortal-relative modal properties.

Because of the arguments in this paper against linguistic ersatzism, I think Lewis’s theory is most defensible if representation drops out. That is, his view is most defensible if we deny that it is my counterpart’s representing me as being forty feet tall that does the work; rather, its being forty feet tall and otherwise appropriately similar to me does it. We have here the “reduction without representation” that I criticized in §III as being unmotivated; but in Lewis’s

case, I think it is motivated. Given his ontology, his choice of counterparts does not seem arbitrary.

³⁹ Cf. Plantinga, *The Nature of Necessity*, p. 44; Kripke, *Naming and Necessity*, p. 19 n.18; and van Inwagen, “Two Concepts of Possible Worlds,” p. 187.

⁴⁰ The non-reductionist’s view cannot be a version of counterpart theory. But Robert Stalnaker has considered a (so-called-by-him) version of abstract “counterpart theory” that, in the relevant respects, is like the non-reductionist’s view. After presenting his theory, Stalnaker entertains this objection:

Still, the critic may respond, what’s the point? This theory will surely be just a clumsy notational variation of the standard theory [i.e., the non-counterpart-theoretic account of abstract possible worlds]. (“Counterparts and Identity,” p. 131)

I salute the critic and endorse the criticism. Stalnaker replies that his theory can make sense of contingent identity in the way that counterpart theory can and in a way that non-counterpart theory cannot. The critic is answered if and only if Stalnaker’s reply is correct.

I am one object. Now suppose two different things represent me in some world. This might seem to imply that I am possibly two things. So it might seem to imply that two things are both actually me only contingently. (This is how Stalnaker thinks his view accommodates contingent identity.)

But according to Stalnaker, a bit of abstracta’s representing me as being a certain way means that, were the world in which it is included actual, then I myself would be that way. (This characterization of representation in a world is, I say, enough to render a view non-counterpart-theoretic.) Therefore, even though two distinct bits of abstracta represent me I am not—given Stalnaker’s constraint on representation just noted—represented as being two things. For they

both represent me as being a certain way only if, were that world actual, I—one thing—would be that way. But if that world were actual, I would be one thing, not two. So in that world—given Stalnaker’s constraint on representation and the assumption that the world is indeed possible—I am represented as one thing even if I have more than one representation.

Thus Stalnaker cannot answer the critic. If Stalnaker amended his view by claiming that for me to be possibly two people *just is* (is reduced to or analyzed as) my having two representations (*qua* person) in a single world, he would be able to account for contingent identity. But if he makes this move, he becomes a garden-variety abstract counterpart theorist, analyzing possibilities in terms of representations.

⁴¹ This point should already be familiar given earlier discussions and arguments. Let me note, finally, that we find an explicit statement of it in Lewis:

According to [counterpart-theoretic] ersatz modal realism, there are abstract surrogates fit to play the same theoretical roles as the concrete *possibilia* that are to be rejected. These are abstract entities capable, somehow, of representing concrete entities. They represent in a double sense. (1) They are representations, so that it somehow makes sense to speak of what is the case *according to* them; and thereby (2) they are representatives, taking the place of what they purport to represent. (*On the Plurality of Worlds*, p. 137)

The non-reductionist who believes in abstract possible worlds will join the reductionist in endorsing Lewis’s claim (1); both say that we are represented in abstract worlds. But they part ways at claim (2); the non-reductionist denies that the existence of such a representation just is—or, in Lewis’s words, “takes the place of”—my having the relevant modal property.

As indicated by the bracketed insertion, I take Lewis’s comments to be about abstract *counterpart theory*. I so take them because if abstracta play the role of his concrete possible

individuals, then abstracta play the role of—and so are—counterparts. Yet Lewis might object, on grounds of terminology, to my bracketed insertion. For the way Lewis uses ‘counterpart’ in much of *On the Plurality of Worlds* seems to permit, just by definition, only modal realistic counterparts (see, e.g., pp. 195-196). Late in the book, however, he treats ersatz counterpart theory as a coherent proposal (pp. 237-9).

⁴² I have argued against *modal* counterpart theory. Theodore Sider (1996 and 2001, 188ff.) defends *temporal* counterpart theory, offering counterpart-theoretic analyses of an object’s past- and future-rooted properties. (See his *Four-Dimensionalism*, pp. 188ff. and his “All the World’s a Stage,” *Australasian Journal of Philosophy*, 74 (1996): 433-453; Katherine Hawley defends a similar view in *How Things Persist* (Oxford: Clarendon Press, 2001).)

Sider presupposes that the past and the future are “just as real” as the present. This allows him to suppose that an object’s temporal counterparts are kindmates of the object itself. (In this way, Sider’s temporal counterpart theory parallels modal-realistic counterpart theory.) As a result, my arguments here against abstract (modal) counterpart theory do not threaten Sider’s version of temporal counterpart theory. If, however, a presentist—someone who denies “the reality of past and future”—were to endorse temporal counterpart theory, then temporal counterparts would have to be “abstract”; and presentist temporal counterpart theory would be undermined by the arguments of this paper.

⁴³ Gideon Rosen considers something like this when he introduces a non-analytic version of modal fictionalism (“Modal Fictionalism,” *Mind* 99 (1990): 327-354, p. 354). “Heuristic fictionalism” should be rejected as misleading since, e.g., it supports false claims like ‘I might have been two people’ on the grounds that, according to Lewis’s theory, I might have been two people. The stronger, analytic version of fictionalism—the version with which Rosen is

primarily concerned—is subject to basically the same objections as abstract counterpart theory. Moreover, there are worries that Rosen’s suggested analyses arbitrarily choose Lewis’s story (as opposed to, for example, Armstrong’s) (see “Modal Fictionalism,” p. 332 n.10).

⁴⁴ See, e.g., Stalnaker, “Counterparts and Identity,” pp. 124-6 and Sider, *Four-Dimensionalism*, pp. 206-7.

⁴⁵ Lewis makes a similar point (*On the Plurality of Worlds*, pp. 253-254). Relatedly, Sider presents an argument for the necessity of distinctness that, he says, is sound unless counterpart theory is true or modal predicates equivocal (*Four-Dimensionalism*, pp. 223-224). I think that there are *de re* modal properties. So I say that if modal predicates are appropriately equivocal, modal properties are sortal-relative; but this make sense, I would argue, only if such properties are analyzed in terms of sortal-relative counterpart relations (cf. Harold Noonan, “Indeterminate Identity, Contingent Identity and Abelardian Predicates,” *Philosophical Quarterly* 41 (1991): 183-193, p. 190 n.3). (Lewis says that (except for modal realism with overlap) rival theories do as well as his at making sense of the “inconstancy of modal predicates.” But note that these rivals are all versions of (abstract) counterpart theory (see Lewis, *On the Plurality of Worlds*, pp. 259-261).)

⁴⁶ Cf. Lewis, “Counterpart Theory and Quantified Modal Logic,” this JOURNAL, LXV (1968): 113-26, p. 115.