Maximal Possibilities*

David Sanson

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1 Introduction

Possible worlds are maximal possibilities.[1] But what kind of thing *is* a maximal possibility? A quick survey of the literature on the metaphysics of possible worlds turns up two prominent candidates:

Cosmoi A possible world is a maximal individual or *cosmos*.[2]

Cosmic Properties A possible world is a maximal property that a cosmos could have.[3]

But both seem wrong. There are more maximal possibilities than there are maximal individuals, because each maximal individual could have any one of several maximal properties. And there are more maximal possibilities than there are maximal properties, because each maximal property could be had by any one of many possible maximal individuals.

So if you like your worlds concrete, don't endorse *Cosmoi*, but

Cosmic Facts A possible world is a fact consisting in a maximal individual's having a maximal property.

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[1] You might doubt that there are maximal possibilities. First, you might doubt that there are possibilities: maybe the move from *possibly, pigs fly* to *there is (or could be) a possibility that pigs fly* is a mistake. Second, you might accept that there are (or could be) possibilities, but doubt that there are (or could be) maximal possibilities. I am sympathetic to both doubts, but here I put them aside.

[2] See, for example Lewis 1968, 39 and 1986, 1–3; Bricker 1996. Actualists will want to qualify *Cosmoi* (and the other proposals) to avoid the apparent commitment to merely *possible* maximal individuals. I discuss this briefly in section 2 below.

[3] See for example Stalnaker 1976, 68; Kripke 1980, 15—20; Soames 2007, 256—257; King 2007, 446–447.

And if you like your worlds abstract, don't endorse *Cosmic Properties*, but

Cosmic Propositions A possible world is a proposition that represents a maximal individual as having a maximal property.

Once we shift to maximal facts or propositions, it is no longer obvious that we need to posit maximal individuals or properties of maximal individuals at all. To be maximal, for a fact or proposition, is to be comprehensive—to decide all the contingent facts or truths, and a proposition or fact can be comprehensive, in this sense, without being about some maximal individual.[4] This suggests that the focus on maximal individuals that is common to *Cosmoi*, *Cosmic Properties*, *Cosmic Facts*, and *Cosmic Propositions* is a red herring.

So if you like your worlds concrete, you should endorse

Facts A possible world is a maximal fact.[5]

And if you like your worlds abstract, you should endorse

Propositions A possible world is a maximal proposition.[6]

[4]The possibility that things are junky—the possibility that every thing is a proper part—can be a maximal possibility even though it does not involve any maximal individual. If possible worlds are propositions or facts, accommodating this possibility is straightforward. As Schaffer (2010, 65) points out, if possible worlds are possible concrete cosmoi, then there cannot be a junky possibility: the cosmos itself will be a thing that is not a proper part of anything. Bizarrely, he takes this to be an argument against the possibility that things are junky. Bohn (2009a, 199–200; 2009b) argues that it is possible that things are junky, and infers that possible worlds are maximal *pluralities* of individuals rather than maximal individuals. But the reasons given in this paper for denying that possible worlds are maximal individuals apply equally to the view that possible worlds are maximal pluralities of individuals. (And the reasons given for denying that possible worlds are maximal properties of maximal individuals apply equally to the view that possible worlds are maximal collective properties of pluralities of individuals.)

[5]The most famous statement of *Facts*—at least as a claim about the *actual* world—comes from Wittgenstein's *Tractatus* (1922, 1.1):

> 1.1 The world is the totality of facts, not of things.

Here I slide over an important detail: is the totality of facts itself a fact? Also, note that the basic view—that worlds are maximal facts rather than things or properties or propositions—can be divorced from any of the other assumptions characteristic of Logical Atomism. For a contemporary defense of *Facts*, see Armstrong 1997.

[6]See, for example Adams 1974, 225ff.; Prior 1977, 54; Fine 1977; Salmon 1989, 6. Here I again slide over an important detail: Adams holds that a world is a set (totality?) of propositions, not a single maximal proposition. Plantinga (1974, 44ff.) makes a distinction between abstract states of affairs, which can exist without obtaining, and propositions, which can exist without being true. I don't understand this distinction, and so I take Plantinga to be endorsing *Propositions*, but nothing hinges on this.

Facts and propositions, like possibilities, involve a unity of individual and property.[7] This is clear when we consider small-scale possibilities: the possibility that Hazel yells involves both Hazel and the property *yelling*; so too the proposition that Hazel yells; so too the fact that Hazel yells. We should not allow the shift from small-scale to large-scale to cloud our judgment. The maximal possibilities involve individuals and properties too, and *Facts* and *Propositions* get this right.

Facts and propositions have another key feature that makes them well-suited to be possibilities. The fact that Hazel is yelling essentially consists in Hazel's yelling: it is contingent, so it might fail to exist, but it is not contingent that it consists in Hazel's yelling. It—the very same fact—could not instead consist in Hazel's being quiet. Likewise with propositions: it is not essential to the proposition that Hazel is yelling that it be true, but it is essential to it that it represents Hazel as having the property *yelling*. It—the very same proposition—could not instead represent Hazel's being quiet.

It is helpful to think of *Propositions* and *Facts* as species of a common genus,

Complexes A possible world is a structured complex, essentially individuated not just by the individuals or properties it involves, but by how those individuals and properties are related.

The simple sort of complex involved in considering the possibility that Hazel yells might be individuated just by the individual and property it involves, independent of how they are related: it is distinct from the possibility that Ruby yells, for example, because Hazel is distinct from Ruby; and it is distinct from the possibility that Hazel jumps because jumping is distinct from yelling. But when we consider possibilities that involve asymmetric relations, they exhibit the same sort of sensitivity to structure that we find in propositions and facts: the possibility that Ruby hit Hazel is distinct from the possibility that Hazel hit Ruby; so too the proposition that Ruby hit Hazel and the proposition that Hazel hit Ruby; so too the fact that Ruby hit Hazel and the fact that Hazel hit Ruby. If possible worlds are complexes, in the sense defined, they can exhibit this sort of structure too.

There is no reason to assume that propositions and facts are the only entities that are complex in this way.[8] So there is no reason to assume that *Facts* and *Propositions* are the only species of *Complexes*. My primary goal in this paper is to defend *Complexes*, not to decide between species of *Complexes*.

[7] As I am using the term here, facts are bits of reality: entities that consist in some (or all) objects having (or not having) some properties. If true propositions represent reality, facts are the bits of reality they represent. You can tell me what there is, and you can tell me what properties there are, without yet telling me what the facts are, because you have not yet told me which things have which properties. Whether there are facts in this sense, and, if so, what kinds of facts there are, is a matter of controversy that need not detain us here.

[8] Other complexes might include sets, Plantingan states of affairs (if they aren't identical to propositions), and Fine's "rigid embodiments" (1999, 65) (if they aren't identical to facts).

In the next section, I argue that maximal possibilities are not individuals. Or rather, I argue that if they are individuals, they will have to be individuals that behave a lot like complexes and not very much like individuals. In section 3, I argue that maximal possibilites are not properties. Or rather, I argue that if they are proeprties, they will have to be properties that behave a lot like complexes and not very much like properties. In section 4, I consider a counterpart-theoretic approach to maximal possibilities, and point out that, on such an approach, maximal possibilities are complexes, too.

2 Maximal Individuals

The most prominent defender of *Cosmoi* is Lewis (1968, 39):[9]

> A world is a large possible individual; it has smaller possible individuals as parts. A galaxy, a planet, a man, an electron—these things inhabit their world simply by being parts of it. Just as the electron is part of the man, and the man in turn is part of his planet which is part of its galaxy, so the galaxy in turn is part of its world.

Notoriously, Lewis is also a Modal Realist: he holds that all the possible cosmoi exist, so that our cosmos is just one among many. But this is a red herring. An Actualist who wishes to endorse *Cosmoi* could hold that the only maximal individual that exists is the actual maximal individual, and paraphrase possibilist quantification over other worlds using actualist quantifiers within the scope a modal or fictional operator.[10] An Actualist who wishes to endorse *Facts* will need to make a similar move. Indeed, if—as is plausible—the relevant properties and propositions do not all necessarily exist, an Actualist who wishes to endorse *Cosmic Properties* or *Propositions* will need to make a similar move.[11]

[9] See also Bricker 1996. McDaniel (2004, 147) defends a version of Modal Realism that does not accept *Cosmoi*. On his preferred version of Modal Realism, possible worlds are spatiotemporally isolated regions of spacetime. To avoid the uncomfortable conclusion that spacetime regions have their occupants essentially, he is then forced to analyze the possibilities for them counterpart-theoretically (2004, 149). (The most distinctive feature of McDaniel's view—the rejection of the identification of a possible world with what happens at it—does not require the assimilation of modal space to ordinary space (or Modal Realism). One could instead hold that possible worlds are sui generis points in *modal* space, distinct from what happens at them. This represents a genuine alternative to *Complexes* that I will not consider here.)

[10] For the details on how this might be done using modal operators, see Fine 1977, 130–139, 1985, 2003. For a fictionalist proposal, see Rosen 1990. I'd put my money on the modalist solution: the fictionalist solution conflates one kind of ill-understood unreality—fiction—with another—mere possibility.

[11] This, of course, is something many proponents of *Cosmic Properties* and *Propositions* want to deny. Stalnaker says that the identification of worlds with properties "is important, since if properties can exist uninstantiated, then the way the world is could exist even if a world that is that way did not" (1976, 68). Likewise, Plantinga claims that "each proposition [. . .] exists in each possible world" (1974, 47). Against this, see Adams 1981; Fine 1977, 1985, 2003.

So a commitment to Actualism provides us with no good reason to reject *Cosmoi*.

A good reason to reject *Cosmoi* is that there are more maximal possibilities than there are maximal individuals. Hazel could have been different than she is: there are many distinct possibilities that involve her. Likewise, the cosmos could have been different than it is: there are many distinct maximal possibilities that involve it.

To deny this—to suppose that the cosmos could not have been different than it is—is to say that the cosmos has all of its properties essentially, to endorse superessentialism for cosmoi. The cosmos is bigger than Hazel. Perhaps being bigger can limit your possibilities: the cosmos, for example, cannot fit through my office door (unless it can be a lot smaller than it is). But being bigger doesn't turn all the properties one has into essential properties. Likewise, the cosmos is more comprehensive than Hazel: she and all the things that surround her are parts of it, but it is not a part of her. But being more comprehensive, like being bigger, doesn't turn all the properties one has into essential properties.

So let a be our cosmos, and let F and G be two distinct maximal cosmic properties that a could have. It follows that there are two distinct maximal possibilities: the possibility that a is F and the possibility that a is G. These possibilities are distinct because the properties involved—*being* F and *being* G—are distinct, not because the cosmoi involved—a and a—are distinct. So there are more maximal possibilities than there are cosmoi. Maximal possibilities—possible worlds—are not cosmoi.

2.1 Cheap Essences

Some philosophers think that modal profiles are cheap.[12] According to some, Hazel is in some contexts essentially human, and in other contexts she is possibly a poached egg.[13] According to others, there is not one object, Hazel, with one modal profile; instead, there are several co-located objects—one for every distinct modal profile: Hazel_1, who is essentially human; Hazel_2, who could be a poached egg, and so on.[14]

If you think modal profiles are cheap, then you might think that superessentialism is cheap. In some contexts, Hazel is essentially the way she is, even if, in other contexts, she could be different. Or one of the many Hazels—Hazel_s—is essentially the way she is, even if the other Hazels are not. So too with the cosmos: the maximal individual is, in some contexts, essentially the way it is,

[12] For a helpful discussion of the sorts of views I have in mind, see Bennett 2004.

[13] See, for example, Lewis 1986, sec. 4.5. In conversation, Hazel says she could not be a poached egg, but allows that she could be a leopard, since she was one for Halloween.

[14] See, for example Hawthorne 2006b; 2006c, viii.

even if, in other contexts, it could be different.[15] Or one of the many co-located maximal individuals is essentially the way it is, and *that* one is the possible world.

I don't think modal profiles are cheap, but I don't want to press that here. Instead, I want to make two related observations. First, superessentialism about maximal individuals—whether cheap or expensive—makes it plausible that a possibility is an individual only because it builds the properties into the individual. And so I suspect that a cheaply got superessentialist cosmos just is a complex masquerading as an individual. Second, even if this first charge is wrong—even the superessentialist can show that she has not tacitly built the properties into the individual—the view is strained. At best, the defender of *Cosmoi* has squeezed an genuine individual into the shape of a complex.[16] I don't deny the ability of metaphysicians to squeeze square pegs into round holes—we are, by and large, quite good at that. But this doesn't change the fact that the hole remains round.

3 Cosmic Properties

Cosmic Properties is a widely held view. In *Counterfactuals*, Lewis argued that it is uncontroversial that there are "ways things could have been", that these just are possible worlds, so possible worlds exist (1973, 84). Stalnaker then criticized this argument (1976, 68, *original emphasis*):

> If possible worlds are ways things might have been, then the actual world ought to be *the way things are* rather than *I and all my surroundings*. *The way things are* is a property or a state of the world, not the world itself.

The uncontroversial commitment, Stalnaker claims, is to *ways*, and ways are properties, not individuals. So, accepting the identification of possible worlds with *ways*, Stalnaker infers that possible worlds are cosmic properties, not cosmoi.

[15] Rosen and Lewis (2003, 40) consider but do not endorse the use of a cosmos taken to have this modal profile in the context of supplying truthmakers for contingent truths. An alternative Lewisian response—to understand possibilities for cosmoi counterpart-theoretically—is discussed in section 4 below.

[16] Perhaps there is no real distinction between a complex masquerading as an individual and an individual squeezed into the shape of a complex. Suppose you need a stiff drink and Hazel offers you a bottle of water that, as it happens, goes down just like a stiff drink. Perhaps what you drank was really a stiff drink mislabeled as water. This corresponds to the idea that the superessentialist cosmos is really a complex masquerading as an individual. Or perhaps what you drank was a special kind of water (fire water?) that behaves just like a stiff drink, even though it is not alcoholic. This corresponds to the idea that the superessentialist cosmos really is an individual, even though it has been squeezed into the shape of a complex.

Kripke doesn't say that possible worlds are *properties* of the world, but he does say that they are *states* of the world, which would seem to come to the same thing (1980, 18, *original emphasis*):

> 'Possible worlds' are 'total ways the world might have been', or states or histories of the *entire* world.

Soames says much the same (2007, 256–257):

> World-states are not Lewisian alternative concrete worlds (universes), spatially and temporally disconnected from ours. Rather, they are properties specifying ways the world could be, or be coherently conceived to be. [...] The actual world-state is the maximal, world-constituting property that the world really instantiates. Metaphysically possible world-states are maximal, world-constituting properties that could have been instantiated.

3.1 Properties of Our Cosmos

As I defined it, *Cosmic Properties* allows that there might be many possible cosmoi, and says that possible worlds are maximal properties that those cosmoi could have. But the quotes above suggest something stronger, namely,

Cosmic Properties of Our Cosmos A possible world is a maximal property that the actual cosmos could have.[17]

Cosmic Properties of Our Cosmos says that all possibilities are possibilities for the actual cosmos. So it implies that the actual cosmos necessarily exists. I doubt that it is necessary that some cosmos or other exists—that there must be some maximal individual, no matter what. But leave that aside: why should we think that the only cosmos that could exist is our cosmos?

Perhaps those who have accepted *Cosmic Properties of Our Cosmos* have accepted it because they were in the grip of a quasi-theistic view of the cosmos. Just as, according to many theists, the very same creator shows up in every possible world, and all that varies is what he decides to create, one might imagine that the very same all-encompassing individual shows up in every possible world, and all that varies is what it manages to encompass. But I don't see any reason to accept this quasi-theistic view of the cosmos.

Perhaps *Cosmic Properties of Our Cosmos* has been accepted because it seems like an innocent generalization of our intuitions about non-maximal possibilities for non-maximal things. In *Naming and Necessity*, Kripke considers the

[17] Though I've had trouble finding unambiguous endorsements of this view in the modal context, Bigelow (1996, 46) fairly unambiguously endorses an analogous view in the temporal context.

possibilities *for* a pair of dice (as he puts it, "the possible states of the pair"), and then invites us to generalize from that, and consider the possibilities *for* the cosmos: those, he says, are the possible worlds. He notes in passing, when introducing the possibilities for the dice, that we must "ignore the fact that one or both dice might not have existed" (1980, 16). He does not say whether or not, when considering the possibilities for the cosmos, we are also supposed to ignore the fact that the cosmos might not have existed.

If we don't ignore the fact that the dice might not have existed, we have to consider whether or not the possibility that neither exists is properly thought of as a state or property *of* the pair. We might be tempted to say that this is not a possibility for the pair, but a possibility for some more encompassing thing, like the cosmos.[18] But no analogous move is available for the cosmos itself, since it is the all-encompassing thing. Does it therefore follow that the cosmos necessarily exists? It seems not: all that follows is that not all possibilities are possibilities for the actual cosmos.

We have good reason to think that the Cosmos might not have existed, once we recognize that it is just a very large and comprehensive individual. Just as we saw above that being bigger and more comprehensive doesn't turn the properties one has into essential properties, being bigger and more comprehensive doesn't render one's existence more necessary. Hazel is more comprehensive than Hazel's left foot, but they are both equally contingent. If there is an individual that contains us all, we should expect it to be contingent, just as we are.[19]

It is perhaps useful to contrast our position here with the position we were in when considering *Cosmoi*. There we found ourselves driven to suppose that a cosmos has all of its properties essentially: it could not exist were it in any way different. Here we find ourselves driven to suppose that our cosmos has unlimited modal flexibility: every possibility is a possibility for it. Ordinary individuals, like Hazel, do not have this kind of flexibility: she could not exist as a poached egg, and so the possibility that something is a poached egg is not a possibility for her. Being more comprehensive doesn't make one more necessary in part because it doesn't make one any more modally flexible.

But even if we did suppose that our cosmos had unlimited modal flexibility (perhaps because we think modal profiles are cheap), we *still* shouldn't suppose that it exists necessarily. Suppose that everything possible for Hazel is also possible for Ruby: Ruby matches Hazel when it comes to modal flexibility. Even so, the possibility that Hazel does something is distinct from the possibility that

[18] Compare this with what Rosen and Lewis say (2003, 39) about finding a truthmaker for 'there are no unicorns in this room.'

[19] I am not assuming mereological essentialism. The point is not that the cosmos is contingent because its parts are contingent, and it essentially depends for its existence on the existence of its parts. Hazel could exist without her left foot; perhaps she could have had a different left foot instead. So too, the cosmos could have existed without Hazel, and perhaps it could have had another three-year-old child as a part instead. The point is just that being big and comprehensive is not a necessity-making property, so a really big and comprehensive ordinary object will be contingent in the same ways other ordinary objects are.

Ruby does it. Likewise, even if our cosmos has unlimited modal flexibility, there remains the possibility that some other cosmos could exist in its place.

3.2 Properties of a Cosmos

Rejecting *Cosmic Properties of Our Cosmos* brings us back to *Cosmic Properties*. *Cosmic Properties* allows that not all cosmic properties must be cosmic properties that our cosmos could have, and so it allows in a range of maximal possibilities that *Cosmic Properties of Our Cosmos* left out. Even so, it does not capture all the maximal possibilities: there are more maximal possibilities than there are cosmic properties.

Consider two distinct cosmoi, a and b. Suppose a could be a bit sad and b could be a bit sad. It follows that there are two distinct possibilities: the possibility that a is a bit sad and the possibility that b is a bit sad. These possibilities are distinct because the individuals involved—a and b—are distinct, not because the properties involved—*being a bit sad* and *being a bit sad*—are distinct.

Being a bit sad is not a maximal property (unless the sadness is *very* profound or the possibility in view is *very* bleak). But the same point applies if we consider maximal properties. Consider a maximal cosmos property, F, that both a and b could have. It follows that there are two distinct possibilities: the possibility that a is F and the possibility that b is F. These possibilities are distinct because the individuals involved—a and b—are distinct, not because the properties involved—F and F—are distinct. So there are more maximal possibilities than there are cosmic properties. Cosmic properties are not possible worlds.

3.3 Cheap Haecceities

A defender of cosmic properties needs to argue that cosmic properties have their cosmoi essentially.[20] If that were so, then either the two possibilities ventured above—that a is F and that b is F—are not both genuine possibilities, or the property, *being* F, is not a genuine cosmic property.

To say that cosmic properties have their cosmoi essentially is to say that cosmic properties are haecceities.[21] Some sorts of haecceity are controversial, but others

[20] An alternative would be to defend

Anti-Haecceitism Distinct maximal possibilities must be qualitatively distinct.

Suppose F is a maximal qualitiative property. Given *Anti-Haeceitism*, it cannot both be possible that a is F and that b is F. But how can this be, given that a and b are distinct cosmoi? Presumably some sort of deep metaphysical skepticism about the status of individuals lurks.

[21] Note that I am using 'haecceity' here in a broad sense. Primitive thisnesses, if there are such things, count as haecceities, but so do non-primitive properties like *being identical to Socrates*. For a defense of primitive thisnesses, see Adams 1979.

are not.[22] For example, suppose F is the property *being identical to a and being H*. Then it is easy to see why a can be F, but b cannot. It is also easy to see that b can have a property much like the property *being F*, namely, the property *being identical to b and being H*. So, by this simple trick, we can make it the case that cosmic properties have their cosmoi essentially.

Haecceities can be put to use in various ways, some more objectionable than others. Frequently, they play the role of surrogates for non-existent individuals: Socrates doesn't exist, but his haecceity does, and perhaps that is enough for certain purposes.[23] This use of haecceities is objectionable if, as is plausible, Socrates' haecceity ontologically depends on Socrates.[24] But the proposal just ventured doesn't have this problem: we aren't trying to avoid commitment to possible cosmoi; we are just trying to forge a necessary connection between a property and an individual.

But forging necessary connections is also the sort of thing that might be objectionable. One cannot forge a necessary connection between cause and effect, for example, by fiat. But the analogy does not carry over to our case.

Suppose some event a causes come event b, and suppose there is no necessary connection between a and b: a could have occurred without b's occurring. Suppose we now attempt to introduce a necessary connection by introducing a new event, c, stipulating that c is just like a except it is built in to the very nature of c that it causes b. Our stipulation might fail because there is no such event. But suppose there is such an event: then we have managed to forge a necessary connection by fiat, but it isn't a deep or interesting necessary connection: we haven't uncovered an interesting joint in reality. c is gerrymandered event, and it cannot do any real metaphysical work.

And this is why the analogy does not carry over. The defender of *Cosmic Properties* need not claim that haecceitistic cosmic properties are deep or natural or fundamental properties that do real metaphysical work, because she need not claim that possible worlds are deep or natural or fundamental features of reality: they might be derivative entities, abstractions, useful markers or signposts we use to navigate through modal space.[25]

So I think we should admit that a dedicated defender of *Cosmic Properties* can posit maximal properties that have their instances essentially, and thereby

[22] Primitive or natural or fundamental haecceities—like primitive thisnesses—are controversial. It seems likely that an appropriately sparse conception of properties will leave them out. But non-fundamental non-natural non-primitive haecceities—like *being identical to Hazel*—are less controversial: if you have Hazel and you have the relation *being identical to*, it is hard to see why you can't also have the property *being identical to Hazel*.

[23] The locus classicus of this sort of use haecceities is Plantinga 1974. He argues that possible worlds concern the haecceities of merely possible individuals, even though there are no merely possible individuals.

[24] See Fine 1985, 2003. Of course someone who holds that haecceities are fundamental properties might deny this. But see Adams 1981.

[25] Unless we also want worlds to play the role of truthmakers, and we think that making true is doing real metaphysical work.

guarantee that each maximal property is bound to a single maximal possibility. We've already seen that a dedicated defender of *Cosmoi* can assert that cosmoi are maximal individuals that have their properties essentially, and thereby guarantee that each maximal individual is bound to a single maximal possibility. And the complaints issued against that defense of *Cosmoi* apply to this defense of *Cosmic Properties* as well: first, haecceitistic cosmic properties are properties with their instances built in, and so appear to be complexes masquerading as properties; second, even if they are not complexes masquerading as properties, they are properties that have been squeezed into the shape of complexes.

If you are not antecedently committed to *Cosmoi* or *Cosmic Properties*, and if you don't like your metaphysics masked or squeezed, you need not be impressed. It is clear enough that maximal possibilities *want* to be complexes, even if they can be dressed up in other clothes that don't really fit.

4 Cosmic Counterparts

I have argued that there are more maximal possibilities than maximal individuals. Lewis would, as far as I can tell, agree. He thinks that his possible worlds *represent* all the possibilities, but he does not think that they *are* all the possibilities.[26]

Our world could have been different than it is. All the other worlds represent other possibilities for it. Each of those other worlds could have been different than it is, too. So consider some other world, w: all the other worlds (including our own) represent other possibilities for it, too. So each world represents as many distinct maximal possibilities as there are worlds (since each world represents, among other things, a possibility for itself).[27]

The worlds that represent possibilities for a given world are the worlds that are accessible to it. Accessibility relations between worlds just are counterpart relations writ large. Consider the work that a counterpart does, for Lewis: it represents a way a thing could be. And what about it is relevant to this? Not that it is the individual that it is, but that it has the properties that it has. (Perhaps one of Hazel's counterparts is Heloise: the possibility represented is not the possibility that she be *identical to* Heloise, but that she be just like Heloise was.) So, in effect, a counterpart, in its role as a counterpart, is a peg upon which to hang a maximal property that an individual could have.[28]

[26] See Lewis 1986, 8, 230ff.; Rosen and Lewis 2003, 40; Bricker 2006. But note that Lewis also speaks as though quantification over worlds is quantification over possibilities (e.g., 1986, vii).

[27] For the sake of simplicity I implausibly assume that maximal individuals are essentially maximal and non-maximal individuals are essentially non-maximal. If these assumptions are dropped, then there will be even more maximal possibilities, counterpart-theoretically represented by relations between cosmoi and proper parts of cosmoi.

[28] I owe this way of expressing it to Ben Caplan, though he takes no responsibility for the view hereby expressed. The metaphor of hanging properties on pegs comes from (Turner

What, then, are maximal possibilities, given this account? A maximal possibility involves two cosmoi: one playing itself, the other playing the role of counterpart. Distinct maximal possibilities are distinct because distinct cosmoi are involved, or because the cosmoi involved have swapped roles. Metaphysical niceties aside, the cosmos playing the counterpart role is, in this account, a stand in for a cosmic property. So, metaphysical niceties aside, a maximal possibility is a complex involving a cosmos and a cosmic property. So, metaphysical niceties aside, the Lewisian position is *Cosmic Facts*, not *Cosmoi*.

Putting metaphysical niceties aside can be helpful: it is a way of ignoring nice distinctions, and seeing important commonalities. But sometimes nice distinctions matter. If we don't put metaphysical niceties aside, Lewis's view is importantly different from *Cosmic Facts*: the possibility that a given cosmos have a given cosmic property is not taken to be a possible fact involving an individual and a property, but a relation between two individuals. But note that the view remains a species of *Complexes*. For what is a maximal possibility, on this view? It cannot be individuated just in terms of the maximal property involved (i.e., the cosmos playing the role of counterpart). Nor can it be individuated just in terms of the individual involved (i.e., the cosmos for which the possiblity is a possibility). It must be individuated in terms of an asymmetric relation the cosmoi stand in: the one representing a possibility for the other. So a maximal possibility is a complex.

So while Lewis can maintain that possible worlds are maximal individuals, this is only because, for Lewis, possible worlds are not maximal possibilities. So the Lewisian pluriverse—the mereological sum of all the possible worlds—is *not* the space of maximal possibilities. Applying counterpart theory to the pluriverse gives us a clever way of representing the space of maximal possibilities by using the Lewisian pluriverse: a point in that space can be represented as an ordered pair of cosmoi, $<a, b>$, where a plays the role of maximal individual and b plays the role of maximal property.

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